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Study of Culture and Media as Solutions for Resolving Beggars and Street Children in Bandarlampung City



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ABSTRACT: The purpose of the study was to analyze cultural and media studies as a way to resolve the sustainability of beggars and street children in Bandar Lampung City, Indonesia. There were 24 informants involved in this study, consisting of community leaders, academics, beggars and street children. The data consists of: interviews, observations and literature review. Data analysis uses several stages, namely: collecting data, classifying data, and concluding. The results of the study are the causes of the existence of beggars and street children are: poverty, child exploitation, people who give money to beggars and street children, movement of people from villages to cities, unhealthy mentality, Bandarlampung City Government has not been maximal in implementing Regional Regulation No. 3 2010. One of the solutions is to increase understanding of local wisdom and empower the media as a channel to convey messages to beggars and street children, and to people who give money/goods to beggars.

KEYWORDS: Beggars, Local wisdom, Media, Street children.

I. INTRODUCTION

Several studies on street children, beggars are often carried out, for example the homeless in Malaysia for example in Georgetown, Penang and its implications for the survival and sustainability of the lives of these minorities Drani, S. B., et al (2021). Low utilization of health services and affordability among the homeless in Malaysia Aizuddin, A. N., et al (2019). The research was conducted in the city of Bandar Lampung, one of the cities in Indonesia which is located on the island of Sumatra. Research on beggars and street children will continue because they are in the life of Bandar Lampung City. Beggars and street children can be found in city centers such as malls/shopping centers, on the main road of Bandar Lampung City (observations from March-June 2022). Beggars, street children in Bandar Lampung City have been increasing since the COVID-19 pandemic in early 2019. They often take their children around in Bandar Lampung City. This is a new social problem after the covid 19 pandemic Pamungkas, S,B (2020). The beggars don't dress well, look physically weak, which makes some people willing to give money for humanitarian reasons. The act of giving money to beggars and street children is the result of the way of life they believe in. One of their views on life is: "The hand above is better than the hand below", meaning the person who gives is better than the person who receives Ali, M. (2018). Table 1. People with Social Welfare Problems by City of Bandarlampung 2014

No	Category	Quantity
1	Street Children	72
2	Homeless	2
3	Beggars	97
4	Scavengers	257

Source: Bps Lampung Province 2014

In this study, people who give money to street beggars are better people than people who are given money, namely beggars and street children. However, the kindness of the person who gave the money/goods has an impact on the attitudes of beggars and street children, for example, always hoping, being lazy, and having a low work ethic. Moreover, adult beggars involve their children to beg on the street, their income is greater when they bring children compared to begging alone Pratama, R. S. (2021). This is a factor in the existence of beggars, they pass their work to their children.

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The city of Bandarlampung has a legal regulation to deal with beggars, homeless and street children, which is the local regulation of Bandarlampung City No. 3 of 2010. In local regulation No. 3 of 2010 explains the definition of street children, children who are active on the streets between 4-8 hours per day, children aged 0-18. The homeless are people who live in abnormal conditions in society, do not have a livelihood and do not have a permanent residence. Beggars are individuals or groups of people begging on the streets to get mercy from people in various ways and reasons, on behalf of individuals or social institutions. Even though the Bandarlampung City government has a local regulation, and has tried to implement the regulation, there are still many homeless people, beggars and street children that can be found. So cultural and media studies are needed as another solution, as a support for the application of the Bandarlampung City regulations. The following are figure 1 the activities of street children in Bandarlampung City.



Fig 1. Street children on Zainal Abidin Pagaralam street, 16 April 2022

II. METHOD, PROCEDURE AND ANALYSIS

This type of research uses a qualitative approach. The data collection techniques used consisted of interviews, observations and reference studies. Interviews were conducted to 24 research informants consisting of: Beggars, street children, academics consisting of lecturers, students and community leaders. Informants from community leaders and academics are as follows with the initials: 1. AI, 2.DS, 3.SPM, 4.SA, 5.RRM, 6.MIK, 7.W, 8.AP, 9.RKH, and 10.M. Some informants of beggars and street children are as follows with initials, among others: 1.T, 2.N, 3. E, 4.Fh, 5.F, 6.S, 7.Su, 8.TK, 9.Y, 10.Ac, 11.CTK, 12. Z, 13.N, and 14.A. The questions asked to the informants included: 1) The reason for the existence of beggars/homeless people and street children in the city of Bandarlampung, 2) the solution to overcome the existence of the beggars, homeless street children in the city of Bandar Lampung, 3) why the local regulation No. 3, 2010 was not implemented optimally in Bandar Lampung City, 4) What are the solutions to overcome the beggars and street children, 5) What are the solutions to deal with people who give money or goods to beggars, homeless people and street children in Bandar Lampung City. Observations were made by direct observation of the activities of beggars on the streets of Bandarlampung City. Reference studies are looking for, utilizing reading sources from news, books, electronic magazines and scientific journals. The data analysis technique used is an interactive analysis technique from Miles and Huberman, the data analysis technique basically consists of data reduction, data presentation, data withdrawal and making conclusions.

III RESULTS AND DISCUSSION

1 Utilization of Community Local Wisdom Value

The culture of the Indonesian people has good values as a reference for local wisdom. The value of this local wisdom embedded in oneself can be seen in the behavior of the community. The nature of giving something easily (generous) is one of the reasons for the existence of homeless people and beggars in Bandar Lampung City. AI explains that:

"First, the Indonesian people are the most generous people. According to the World Giving Index (WGI) reported by the Charities Aid Foundation (CAF) in mid-2021, it announced the results of a survey of the most generous countries in the world. Indonesia is ranked first as the most generous country in the world. Second, the character of the Indonesian people, their work ethic is low but the level of generosity is high, causing beggars/homeless people to grow in Indonesia". (Interview with AI, May 13, 2022)

In 2017, the Charities Aid Foundation (CAF) report stated that 46 percent of Indonesian respondents were willing to help foreigners. Furthermore, as many as 78 percent like to give financial assistance to others, and 53 percent are willing to take the time to volunteer. This also makes Indonesia the most generous country in the world. Another specific example is that community

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activities in the Pringsewu area will bring basic necessities such as vegetables, oil, rice and others wrapped in “*gemplo* or tablecloths” when a neighbor is grieving. Fatoni, M. R. (2021). According to Informant T, an adult beggar, he received Rp. 30,000-Rp120,000 per day. On weekdays he earns between Rp.30,000-Rp.50,000, but in the month of fasting/ramadon he can earn up to Rp.120.00. Begging locations around Mall Candra Bandarlampung (interview with T, May 13, 2022)

The generosity of the community (as a local wisdom) giving money to beggars and street children has an impact on people's attitudes, for example laziness and low work ethic. To deal with people who give money to beggars, several regions in Indonesia have local regulations, for example the regulation of the Special Region of Yogyakarta Number 1 of 2014 concerning Handling Homeless and Beggars Zahri, A., et al (2021). Similar to the local regulations of Bandarlampung City, it prohibits people from giving money or goods to beggars and street children. Several informants explained that there needs to be a continuous process of delivering messages that it is not permissible to give money/goods to beggars and street children. Furthermore, it is necessary to regulate by official government institutions or credible community institutions to process money from benefactors. DS explained: "The money/goods can be given to an official government agency directly, or a credible public fund-raising institution to be used for the needs of beggars and street children" (Interview with AI, 13 May 2022). SPM also explained: "They give money or goods to beggars is not the right thing to do" (Interview with SPM, May 13, 2022). Money can be given to official religious institutions, such as the national zakat agency, or mosque administrators. Insan, N. A., & Wahyudi, W. (2021). Furthermore, SA explained that people who give money to beggars and street children are actions that make other people lazy to work. SA explained: "Don't give anything to beggars because it will lead to dependence on beggars so they become lazy, if they want to give charity, they can donate to their neighbors or donate funds to the mosque". (Interview with AI, April 26, 2022). Likewise with an interview with W, a security officer at a mall in Bandar Lampung City, said: "People should not give money to beggars" (Interview with W, May 15, 2022).

Laziness and unwillingness to make the homeless and beggars comfortable living in a continuous routine. Ayunda, R., et al (2021). The following figure 2 is photo of research document that explain the daily activities of beggars in Bandar Lampung City. Husband and wife interviewed on 13 April 2022 at Zainal Abidin Pagaram Street, Bandar Lampung.



Fig 2. Husband and wife beggars

2. Utilization Of Media To Convey Messages Prohibiting Begging And Giving Money/Goods to Beggars and Street Children.

Prohibition of not begging and giving money/goods to beggars should use the media continuously. The impact of the media can affect the audience, MIK explains as follows: “Socialization is carried out by relevant agencies aimed at individuals, families, educational institutions, communities and social organizations, which include: a. Direct socialization, through interactive activities and lectures; b. Indirect socialization, through print media and electronic media. c. Counseling aims to invite and influence a person or group to participate in carrying out coaching and controlling activities for street children, homeless people and beggars. Activities involve certain community groups, in the form of performances, competitions, speeches and the installation of signs regarding the prohibition of giving money on the road”. (Interview with MIK, 19 May April 2022).

In practical terms, MIK explains the installation of signs or signs regarding the prohibition of giving money on the streets. MIK's statement is the same as Nim's suggestion in his research. As the results of Nim's Research suggest that there needs to be clear and firm communication as a regular channel of communication. Routine Communication by the personnel of the civil service police unit and the beggars is to comply with the regulations on the prohibition of begging established by the City of Pontianak. Nim, A. S., & Thamrin, H. (2019).

A study on the use of media to control traffic is to use street traffic lights. It can be used, to create a voice message to the audience. Asmaria's research explains that voice messages have a good impact in solving traffic jams in Bandar Lampung. Asmaria, A., & Santika, D. (2019). Putra explained: “The Head of the Malang Regency Transportation Service, Hafi Lutfi said that the loudspeaker

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was intentionally installed by the Transportation Service which contained the Regent's recorded voice, suggesting the application of health protocols to road users. Putra, Syamsudin (2020). Tranggono conducted a research on voice messages to discipline motorists to obey traffic as follows: "Voice messages are used to persuade, motivate drivers to obey traffic regulations for two-wheeled motorcycles in Surabaya" Tranggono, D., & Suratnoaji, C. (2016). It is assumed from the explanations of Asmaria, MIK, Putra and Tranggono that the use of voice messages prohibiting begging and giving sanctions to money givers on the street is possible. Voice messages in the form of recordings of the prohibition of begging and giving money to beggars and street children were installed in several places on the protocol road of Bandar Lampung City. The benefit of the media is a change in the behavior of beggars and street children not to beg anymore. The study of changing views through the media was investigated by Santoso, E., & Prastyanti, S. The positive impact of media for a positive image. Media can be used as a means to change people's views, from a beggar village to a village with positive values. Santoso, E., & Prastyanti, S. (2021).

3. The cause of the sustainability of beggars and street children

Unemployment is one of the causes of poverty. Poor is literally translated as unfulfilled primary needs. The following is AP's explanation: "People beg for lack of economic needs, while skills are low and access to jobs is limited" (Interview with AP, May 30, 2022). AP's opinion is also the same as MIK's opinion, as follows:

"There are several reasons for the poor in Bandar Lampung City: Internal factors, namely low education, low skills, low motivation to live, low willingness to develop themselves and so on. They still survive by being scavengers, buskers, beggars, homeless people, and others. They perform their actions in various ways, singing with makeshift musical instruments, cleaning the windshield of a stopped car, pretending to be disabled, some begging with a little force. (Interview with MIK, 19 May 2022).

One of the causes of people becoming beggars is poverty, the 14 informants of beggars and street children are poor people. Poverty makes them forced to beg for money from pedestrians. Income inequality causes them to become beggars. Lee, B. A., et all (2021).

Children are people who are vulnerable to being used as tools to get something, for example to get money. During research observations, street children who were found at Zainal Abidin Pagaralam street on April 16 2022, they asked for money from car drivers after they sang. Some informants are children with the initials A, Z and N who are still attending elementary school. They carry out begging activities after school, with the aim of helping the family finances (observation on April 18 2022 at Pemuda street Bandarlampung). The research informant with the initials N, brought her three children to beg at Raden Intan Street, Bandarlampung City (observation April 13 2022). Likewise with beggars with the initials TK and bringing his grandchildren with the initials CTK to beg. Children's begging activities are expected to help the family's economy. SA explains as follows: "there is exploitation of children, children are used as beggars to get bigger profits" (Interview with SA, April 26, 2022). Street children are not only a problem in Bandarlampung City, but also in big cities Indonesia, and cities in this world. Parents exploit children due to economic factors, such as children begging in the pilgrimage tourism area of KH Sheikh Asnawi's grave in Carigin. Sumiyati, A., et all (2021). The study of street children in Rawalpindi Pakistan, describes children who beg at bus stops, street children who are dominated by boys. The recommendation for this research in Rawalpindi is that street children be given skills in order to support their family's economy. Tabassum, S., & Suhail, K. (2022). Street children in Baghdad are street children aged between 5-16 years, their monthly income is not sufficient, and they suffer from poverty. Abdullah, A. P. D. N. S. (2021).

The culture of giving money to beggars and homeless people is an attitude that is embedded in society. However, this local wisdom has a bad impact on beggars and street children. The moment that is considered appropriate is when the fasting month/Ramadan arrives. The assumption of giving money will get a double reward. As expressed by W, a security guard at the Simpura Mall Bandarlampung, as follows: "Moments for Eid and the month of fasting are increasingly giving money" (Interview with W, May 15, 2022). SPM explained that people who give money to beggars and street children are people who need an understanding opinion, following SPM's explanation: "lack of education to the public about better and more effective alms". (Interview with SPM, 13 May 2022). The Indonesian people adhere to the values of local wisdom that are applied. Giving money or goods to beggars and street children for different reasons. The people of Batam City still give money to beggars who beg even though it is prohibited by the Batam City government. Jalizar, A., et all (2022). People who give money to beggars are related to the business of the beggars themselves. The beggars can process their nonverbal messages, as if very poor, slow walking, dirty clothes and sad faces. With good self-management, it makes others feel sorry for him. This is very different when the beggars in their family and social life, use appropriate clothes, cheerful faces and good social relations. Darma, D., et all (2021). There are 9 adult beggar informants, 6 of them are immigrants or not native to Lampung. Bandarlampung city with continuous development has an attraction to move. This population movement is expected to be able to change economic life. The following is the explanation of DS as follows: "Because of people migrating to the city of Bandarlampung, the effects of development and modernization are centered in Bandarlampung 2. Development in Bandarlampung does not actively involve its citizens, thus creating new poor people" (Interview with DS, May

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13, 2022). Not only in Bandar Lampung City, the beggars come from outside Bandar Lampung City, but also other big cities. For example, the Special City of Yogyakarta, 70% of homeless people and beggars come from outside the Special City of Yogyakarta. The development, attractiveness of the city, and the economic center of the city of Yogyakarta are the causes of the arrival of beggars Setiawan, H. (2020). The mobilization of beggars, homeless people and street children increases when the fasting month / Ramadan arrives. For Muslims this fasting month is believed when we do good, then the goodness will be rewarded by Allah SWT multiplied.

One of the causes of the sustainability of the beggars is a bad mentality, for example a lazy attitude to work. Just want to earn money the easy way. SA explained as follows: "because of being lazy, now many rich beggars are found, with their livelihood as beggars they don't need to work and earn money, and usually the work of begging is passed down to their children so that all families become beggars" (Interview with SA, 26 April 2022). In the case of the return of beggars to the streets after being fostered, Hidayah explained, the Makassar City Social Service does not guarantee that people with social illnesses who have received training and return to the streets. However, the social service of Makassar City has tried various ways to reduce their presence. Not a few of them have been arrested and have been trained but still choose to return to the streets Hidayah, E. S. (2020).

In line with Hidayah's opinion, AI explained that a low work ethic was one of the reasons. there are beggars, the following is the AI explanation: The work ethic of the community is low, according to a survey conducted by the Political & Economic Risk Consultancy (PERC) to 12 countries in Asia, Indonesia is a country with the lowest level of work ethic" (Interview with AI, May 13, 2022). Furthermore, RRM explained as follows: "mental attitude. belief assumes that begging is an easy job to earn money compared to having to work" (Interview on RRM, May 14, 2022). When observing in the field, around the Simpura Mall Bandarlampung, there was a beggar bringing his grandson to beg. this is a bad mental attitude, the family is involved in begging on the streets. The study of mental disorders, namely the feeling of being a burden to others, and social isolation are the mental feelings felt by Iranian homeless teenagers Johari, F., et al (2022).

Based on observations and interviews with research informants, from 14 beggar informants, 9 adult informants and 5 child beggars. Of the 9 adult beggar informants, 6 were physically disabled (some of the limbs were not less functional). This physical disability causes them to be forced to beg in the streets or crowds of Bandar Lampung City. Research in Jordan found that beggars who have physical disabilities/people with physical disabilities are more likely to be beggars than people with other disabilities. AlTarawneh, R. K. (2021). The research of Maryolinda, R., et al (2021) explains the factor of people becoming beggars in Pangkal Pinang City from people with disabilities.

The Bandarlampung City Government has not implemented local regulations to the maximum extent of No. 3 of 2010. M explained as follows: "There is no firm or serious action from the relevant agencies, beggars are not because of poverty or incapacity, but as a means of livelihood. In this case the social service should provide supervision and skills to beggars and street children in the city of Bandarlampung" (Interview with M, June 1, 2022). M's explanation is supported by Pertiwi, R., et al (2021) and Wijaya, R. (2019) regarding the implementation of local regulation no 3 of 2010 has not been maximized due to limited facilities and infrastructure, and less strict sanctions. In Indonesia, local regulations regarding the handling of beggars, homeless people and street children have not been implemented optimally, for example in the city of Palembang with local regulations no 12 of 2013 Kencana, U. et al (2021). In Yogyakarta, there has been no significant change in controlling beggars, homeless people and street children. Jannati, M. L., & Sutoyo, J. (2018). Just like in Amuntai City, the implementation of local regulations regarding the homeless, beggars and street children has not been fully implemented by Raudah, S. (2019). The findings of the study are that the cultivation of the concept of a culture of shame in begging, the understanding of "hands above is better than hands below" involves official agencies of the Bandarlampung City government, private institutions, and religious institutions. Delivering messages about the prohibition of begging and giving money/goods to beggars and street children continuously by utilizing the surrounding media, for example with pamphlets, posters, and voice messages at the traffic light on the main road of Bandarlampung City.

IV. CONCLUSION

The causes of the sustainability of beggars and street children are: poverty, exploitation of children, People who give money to beggars and street children, Physical disabilities, mentally unhealthy, Not yet maximal in implementing regional regulations No. 3 of 2010. The solution to solve beggars and street children is to apply regional regulation No. 3 of 2010 maximally, ownership and processing and management of social institutions by the social service, providing training in the form of skills. This finding differs from previous studies, namely that socializing local wisdom in the community is easy to give money/goods, but it is maintained but given to official government institutions or credible private institutions, and religious institutions. Instilling a sense of shame in asking for requests is always conveyed through messages that are easily seen by the public, for example with pamphlets, billboards, or voice messages near traffic signs, discussions, religious lectures through print or electronic media.

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The Use of Information and Communication Technology as Learning Sources in English Language Learning



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ABSTRACT: The internet undoubtedly saves time and effort, with motivation playing a critical influence in the successful status of advanced English learning. This is carried out through the crucial role of information and communication technology in English language education. Therefore, this study aims to analyze the utilization of information and communication technology as learning resources for English language education. The utilized analytical methods were obtained from a literature review on the relevant sources observed through Google Scholar. The results showed that technology carried out the following, (1) promoted teacher-student interaction, (2) provided understandable input and output, (3) helped develop critical thinking skills, (4) enabled more students' learning and teaching processes, (5) encouraged and built autonomy and self-confidence, and (6) increased students' motivation to successfully learn English language.

KEYWORDS: information, communication, English language learning

INTRODUCTION

The rate of Indonesian internet users is one of the highest in the world, with a total of 204.7 million users recorded for January 2022, according to the "We Are Social" study. This is slightly increased by 1.03%, compared to the previous year, where 202.6 million users were observed in January 2021. Based on these conditions, Indonesia has observed a steady increase in the number of internet users over the past five years, with the present population elevated by 54.25%, compared to 2018. Approximately 73.7% of these users were also digitally active at the beginning of 2022, with the country's population in January observed at 277.7 million people (Databoks, 2022).

The internet undeniably helps in saving both time and effort, as online education aids language learning, especially English, without abandoning a specific location. This indicates that students are capable of digitally learning English at any time, location, and alacrity. The internet also provides them with immediate feedback, subsequently improving their learning experience (Ammanni & Aparanjani, 2016). Besides the important roles of information and communication technology as learning sources, motivation is also a crucial aspect in determining the success levels of complex English education. According to a literature review, motivation also played a critical role in successfully learning English as a foreign or second language (Al Othman & Shuqair, 2016). Therefore, this study aims to examine The Use of Information and Communication Technology as Learning Sources in the English Language.

METHODS

The utilized methods were obtained from a relevant literature review derived through Google Scholar. This review is a thorough, systematic, and repetitive approach to locating, assessing, and interpreting existing recorded documents. In this report, the publications between January 2016 and April 2019 were adopted for utilization.

RESULTS

No	Author, Year	Journal	RESULTS
1	(Dos Santos, 2019)	Global Journal of Engineering Education	The adoption of a VOVTS (visual-only video teaching strategy) was examined as a teaching and learning tool for English language education. The results showed that highly positive judgments were possessed by the educational personnel, regarding a

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No	Author, Year	Journal	RESULTS
			semester-long freshman English class for ELL engineering students. This emphasized the teaching technique utilizing a social media learning platform. Based on these results, more understanding of the alternate teaching tactics was provided for the engineering students' learning classrooms, using social media educational platforms.
2	(Ammanni & Aparanjani, 2016)	International Journal of Scientific & Engineering Research	Every field is extensively involved in English language learning, including health, engineering, education, the arts and sciences, law, and music. This is necessary for the global alignment of linguistic acquisition adaptation, although the confluence of globalization, English distribution, and technological advancement has fundamentally transformed the educational patterns of this language as a second option. Science, technology, and information also play an important role in every element of human life, with technological advancements launching a new chapter in the educational sphere. Moreover, the students are not significantly impacted by conventional instructional strategies, with the evolution of technology use encouraging creativity as a source of learning motivation.
3	(Kaceti & Klímová, 2019)	Education Science	The results showed that mobile learning was important and educationally developing, leading to the provision of a fantastic chance for language acquisition. Some of its main advantages included the following, (1) The development of the student's cognitive abilities, (2) The motivation to study in formal and informal settings, autonomy, and confidence, and (3) The promotion of individualized learning, which aids low-performing students in accomplishing their academic objectives. Despite the general success of mobile learning, cautious development, planning, and implementation were still advisable according to the student's needs. It also provided different language skills in subsequent genuine learning situations.

DISCUSSION

Technology is a useful tool for students, with its utilization observed to be very important in the learning process. In this case, teachers need to demonstrate its utilization patterns in the enhancement of the curriculum. This highly emphasizes its frequent utilization, for students to improve their language abilities. Technology also promotes student cooperation towards the collaborative design of projects and work comprehension, for the exchange and sharing of knowledge (Mohammad, 2018). Furthermore, language education has advanced to the forefront of mobile learning innovations, due to the plethora of free and inexpensive mobile apps (applications) available in different specialized web shops, including Apple, BlackBerry, Google, Nokia, etc. The significant global demand from developing economies has also been a very supportive influence, where language learning is considered a process of increasing employment and trade (Kukulka-Hulme, 2012).

In this technological era, most students own Android sets and mobile phones, which are used for several purposes. The most common application for these phones often emphasizes vocabulary learning, enabling users to directly download any appropriate dictionary from the internet into their private devices. This is specifically beneficial when determining and learning new words through English activities. Using a mobile device, students were capable of submitting brief questions, with teachers responding through the Short Message Service (SMS). In addition, mobile phones are specifically useful for exchanging voice messages, emails, and the mini web pages used to perform exercises (Aziz et al., 2018).

According to Ammanni & Aparanjani (2016), the use of ICT enhanced the teaching and learning of the English language. Using this technological tool, the following data were obtained:

1. The needed information was obtained in a split second.
2. E-learning encouraged learners to be more creative.

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3. ICT provided students with access to useful competitive information in this cutthroat environment.
4. The use of English multimedia tools effectively motivated students and provided them with engaging new learning opportunities.
5. The ICT encouraged teachers and students to use up-to-date, reliable sources.
6. The ICT improved students' verbalization, interaction, and participation in group collaborative learning.
7. Learners are capable of working individually.
8. Pictorial descriptions are provided with ICT.

Irrespective of these advantages, the technological resources were still unable to ensure the learning and teaching successes of students and teachers, respectively. In this case, the benefits and utility of technology should be demonstrated to teachers, for the enhancement of education. To incorporate technology into language learning, they also need to obtain adequate support and training. According to the review, teachers and students highly benefited from technology when it is appropriately handled. This was due to being a useful tool for students, regarding its assistance in resolving learning issues, as well as effectively and meaningfully determining different modes of knowledge application (Mohammad, 2018).

CONCLUSION

Based on the results, technology had the following advantages, (1) Fostered the interaction between teachers and students, (2) Provided understandable input and output, (3) Assisted the development of critical thinking skills, (4) Highly enabled student-centred educational processes, (5) Encouraged and developed autonomy and self-confidence, and (6) Improved students' motivation to successfully learn English language.

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Equipment for Internet-Based Research and Internet Search Strategy



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ABSTRACT: Qualitative researchers and social scientists using the internet more frequently as a platform for academic research and observation. By using the internet as a virtual library, the scholar can acquire information on ostensibly vast topic. Nevertheless, accessing the massive array of data available competently is very challenging. Different types of internet tools are available to work for research activities and paper writing. This paper delves into the study of several basic equipment for online-based research which may be helpful for the researchers to successfully conduct the research and writing activities.

KEYWORDS: Tools, advantages, internet, strategy

BACKGROUND

By using the World Wide Web's (WWW) Uniform Resource Locator (URL) to access databases made available electronically by information providers, the Internet is frequently utilized for research. In addition to the e-commerce transaction, conversations and debates are frequently held, and emails can be sent and received. (Afolabi, 2001). Research and investigation, recreation, and commerce thus are some of its primary purposes. (Wajasurriya, 1998). The pace of finding information has significantly risen thanks to online resources like search engines (Adomi et al., 2004). Ivwighreghweta (2013) stated that using the Internet to research academic topics enhances students' intellectual growth and career readiness. In the modern era, it has been noted that the internet has developed into a valuable resource for studying, teaching, and research in the field of education. Every important academic enterprise around the world is built on its function in information processing, organizing, storing, extracting, and dissemination. (Ifidon, 2007). It is disappointing that despite its many benefits, most investigators lack the knowledge necessary to conduct effective searches or locate reliable sources of data. For some academics, even synthesis and analysis of the data might be a nightmare. Exploring the potential of the Internet is unattainable due to researchers' inability to solve these issues. (Ejizu, 2010).

In Internet-mediated analysis, new, original data are gathered and then exposed to analysis in order to provide fresh evidence for a given research issue (Hewson et al., 2003). In many internet-based research contexts, online tools and continuous advancements in pertinent Internet technologies have made many of the earlier programming instructions obsolete (Görizt and Birnbaum, 2005; Creswell, 2014). According to Sedwick (2004), the use of email and the Google search engine has increased the appeal of the internet as a tool for research. Most individuals who use email or "surf the Web" have been approached to participate in some kind of online survey (Ahern, 2005). Many of the first internet surveys were from businesses who conducted marketing research. However, as Siah (2005) noted, "a substantial number of researchers have been drawn to the medium for information gathering due to the pace, simplicity, and affordability of running an internet-based study."

Internet Search Strategy

Internet may be a cutting-edge technical tool that makes it easier and more efficient to distribute knowledge across a broader group of individuals. Universities now spend a lot of money on internet connectivity because it reduces the time it required to produce new knowledge and put it to use, enhances collaboration and idea-sharing with researchers in other institutions, regions, or nations, encourages the sharing of instructions and data, and fosters scientific research. Internet supports to satisfy people's hunger for information and further research. Many academicians use web services quite naturally (Burke 2002), however, some of them lack sufficient search skills and the fundamental skills for a critical assessment of internet information. In order to prepare their manuscripts, student researchers primarily seek for methods for using the internet as a useful learning resource. (Hoffman

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et al. 2003). According to Nachmias and Gilad (2002), in order to find information using online tools, a person needs to have the following knowledge, skills, and abilities: the ability to use search engines, the ability to use searching techniques, the ability to browse through information, the intellectual capacity to systematize searches, the ability to operate a search, and the capacity to think logically. It is apparent that professionals must assist pupils in enhancing these essential abilities for using Internet technologies. (Shenton& Dixon 2003; Corio 2003; Hoffman et al. 2003). Utilizing internet-connected devices necessitates an understanding of various tactics, which in turn calls for a set of specialized internet-related abilities. We may conduct a finely focused search using the many options offered by search engines. Boolean search commands (and, or, near, none, not), (+, -, ", etc.), power searching commands (in titles: sites: URL, link: *,?, etc.), and search aid features are a few of the commonly used search tactics mentioned in Akkoyunlu (2002a) and Brehm (1999).

TOOLS AND TECHNIQUES

Internet-based survey equipment

Researchers now have a variety of alternatives when choosing a tool to best suit the data collecting goals for a certain study thanks to the simple availability of web survey equipment. (Sax et al., 2003; Wright, 2005). To cut down the choices from several apps to a few tools, it may be helpful to have a thorough understanding of the different kinds of internet-based data gathering programs that are accessible. (Granello & Wheaton, 2004). There are several reasons why internet-based methods are preferred, but the key ones have to do with improved control, validity, and dependability.

Table 1.1 Internet-based survey equipment

Internet-based survey equipment	Hosting location	Researcher's cost
Web Hosted Survey Wizard	External	Medium
Web Survey Wizard	Internal	Low
Custom Design	Internal	Low

Source: Heerwegh *et al.* (2005)

Internet-based data collection equipment

Data collection software is a digital instrument for the gathering and electronic archiving of qualitative and quantitative data. Working with online data collecting technologies has the advantages of eliminating paper surveys and enabling speedy export of data for data analysis and reporting. Most frequently, the internet has been utilized to conduct the study, although e-mail has also been utilized. The use of such a technology opens up new possibilities for reaching respondents, enabling the creation of bigger and more varied samples. Additionally, a variety of online-based catalogs are accessible to aid scholars in finding printed books, periodicals, official papers, and other items.

Table 1.2 Internet-based data collection equipment

Internet-based data collection equipment
http://www.activewebssoftwares.com
http://www.advancedsurvey.com
http://www.askget.com
http://www.classapps.com/SelectSurveyOverview.asp
http://www.freesurveysonline.com
http://www.hostedsurvey.com
http://www.infopoll.com
http://www.prezzatech.com
http://www.questionpro.com/web-based-surveysoftware.html
http://www.raosoft.com
http://www.supersurvey.com/?sezbc.com_software
http://www.vovici.com
http://www.websurveyor.com
http://www.zoomerang.com

Source: Van Selm & Jankowski (2006), Betz Hobbs & Farr (2004), Tourangeau et al. (2004)



Figure 1.1 Online research tools

Academicians may access all of their projects and manage them using Todoist from whatever platform they possess. EndNote is a versatile research tool that provides access to complete texts based on abstracts and information from internet sources. In addition to that, it manages all of their references. One might employ EduGeeksclub's assistance by ordering a paper from them to serve as a source for their essay, paper, or thesis. Zotero integrates with their browser and makes advantage of its ability to recognize material for them automatically. After that, it allows users to store it to their own library—another Zotero feature—with just one click. RefWorks is an online platform that may help researchers locate exact research data, organize it, save it, and share it with their peers and academics with ease. Similar to Zotero, Paperpile is a reference management program that works as a Chrome browser extension, making it accessible to Windows, Mac OS, and Linux users. By transforming the world's collective knowledge that is included in scientific publications into content, ContentMine gathers scientific facts near to the researchers. The Plagiarism Checker will scan your document and look for any duplicate content.

Implication in research

Since the beginning of the twenty-first century, people have used the internet to look for material for term papers, projects, and other types of homework. We are used to successfully and frequently favorably employing online services for scholarly research, but we are not very acquainted with reliable and effective Internet search methods. On light of the fact that searching in a web browser requires more than just a basic activity; it also necessitates vital skills, therefore comprehending information seeking methods is a pertinent study topic. The Internet satisfies authors' thirst for information and further study. Internet education is therefore necessary since it has grown to be an invaluable resource for learning, teaching, and research in the field of education. With this in mind, it becomes imperative for the Nepalese government to overcome the different blockages encountered while using Internet tools since doing so will significantly improve the services provided by the Internet. The researcher's grasp of the abilities needed for online information seeking as well as the procedures involved in properly preparing students for writing scientific papers is improved by this study.

CONCLUSION

The study's conclusions showed that academics utilize the Internet to look out resources for term papers, projects, and other types of assignments. Due to its essential role in information collection and researcher requirements communication, the internet has grown in significance inside academic institutions. Access to a wide variety of material, including journal articles, papers, websites, Google Scholar, Zotero, Mendeley, etc., is now attainable from anywhere in the globe thanks to internet tools and technology. Additionally, it makes it possible for academics and researchers to share their findings with a larger global audience. In terms of concerns of improved control, validity, and dependability, internet-based research methods should be favored. However, many researchers lack the requisite search abilities and abilities to critically evaluate online sources of information. The complexity of looking for content on the Internet must thus be better understood by more study in this field. According to the

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study, efforts should be made to provide a reliable power supply. Adequate user education and training on the use of Internet tools by the university administration would also improve Internet use.

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Conflict of Interest

The author declares no conflicts of interest regarding publication of this manuscript.

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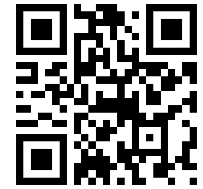
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Parental and Health Professionals' Awareness and their Roles in Speech-Language Therapy for Effective Intervention among Children with Communication Disorders in Selected Hospitals, Mwanza City, Tanzania



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ABSTRACT: The study aimed to assess parental and health professionals' awareness and their roles in speech and language therapy services in selected hospitals, Mwanza City, Tanzania. A study used both qualitative and quantitative approach with descriptive survey design. The study used sample size of 85 parents of children with communication disorders and 15 health professionals with total of 100 respondents. The study used closed ended questionnaires for parents, semi-structure interview for health professionals and document analysis to get respondents parents and their children in the selected hospitals. the study was conducted at Bugando Medical Center and Sekou-toure Regional Referral Hospital in Mwanza, city, Tanzania. The findings of the study revealed that the majority of parents in the selected hospitals were not aware of speech and language therapy services in the country and majority of them have very limited awareness of their roles in intervention process. Many of them don't know individual professional concern with speech-language therapy and many parents raise awareness about speech-language problem when it is very late. It also revealed that many health professionals have limited awareness of the roles they play in speech and language intervention process.

KEY WORDS: Parental & Health Professionals' Awareness and roles of Speech-language Therapy for Effective Intervention

1.0 BACKGROUND TO THE STUDY

1.1 Introduction

Children with cleft palate/lip, with Autism Spectrum Disorders, with Cerebral palsy, with hearing loss and with Down Syndrome are at risk of speech and language impairments (NID, 2018; Samwel et al, 2015). They have challenges with either receptive language, expressive or both. Early intervention is very important for speech-language development among them and it is done by multidisciplinary team including parents, speech-language therapists and allied health professionals. To have effective participation for implementation of early speech-language intervention program, parents of children with communication disorders and health professionals must have awareness of speech –language therapy services and know roles they play in intervention process as one of the important team. Parental awareness of speech and language therapy are crucial points for parental participation in early identification, diagnosis process, participating in home treatment program, advocating for intervention program, choosing communication skills needed to enhance speech and language to their children and providing evaluation and progress of child's speech-language development (Rosenbaum & Simon, 2016).

Health professionals apart from speech-language therapists have great roles in child's language development. They work closely with speech therapists and parents in evaluation, monitoring, providing referral system, advocating the child's speech-language needs and providing rehabilitation and habilitation of the children with communication disorders (Mostafa, 2017 & Intezar et al, 2018).

Lack of parental and health professionals' awareness of speech-language therapy available in the country is among the factors that hinder effective speech-language intervention process. Parental and health professionals 'awareness of speech-language intervention services available in the country is a primary component that encourage participation in any designed intervention program (Robert,2011 & Ayse,2019).

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In East Africa, it is commonly known that speech and language therapy services are affected by cultural and linguistic aspects and scarcity of speech therapists. Many parents and communities still have negative perspective towards children with communication disorders (Kinyua & Ndugu, 2009).

Tanzania is among the Sub-Sahara and East Africa countries which have very few speech-language therapists while having many children with communication disorders who need speech-language intervention. However, the study has not been done to assess parental and health professionals' awareness of speech-language therapy services for effective intervention process thought they very significant group required for implementation of the services.

1.2 Statement of the problem

Speech and language impairments are among the common challenges facing children with communication disorders in the aspects of receptive and expressive language. Parents and health care providers are essential participants in child's speech-language development due to the fact that they play crucial roles in child's health management and developmental milestones. Parents provide therapeutic services at home, take their children to rehabilitation centers, interact with their children in social, cultural and economic aspects of their lives, advocate for speech-language concerns of their children and work on monitoring and evaluating child's progress whereas health care professionals' advocates for children's speech-language needs and provide referrals for speech-language therapy. In Tanzania there are many hospitals and rehabilitative health centers which receive children with communication disorders Bugando Lack Zone Referral Hospital, Sekou-toure Regional Referral Hospital and Mabatini Community Rehabilitative Center are among them. However, the level of awareness and roles of parents and health professionals in speech and language therapy services is still unknown in those hospitals. But again, how those children with communication challenges are helped in the areas of speech and language development remaining the big question because there are no studies that have been done in this area. Therefore, there was need to conduct a study in this are for effective speech-language intervention among children with communication disorders.

1.3 significance of the study

The findings of this study may provide relevant information to speech therapists and other health professionals on the importance of creating awareness on speech-language therapy and the need for involvement of parents in speech-language therapy for effective intervention process.

1.4 aim of the study

The study aimed to asses parental and health professionals' awareness of speech-language therapy for effective intervention among children with communication disorders. An attempt was done to answer the following questions:

1 What is the level of awareness among parents and health professionals on speech-language therapy for intervention of children with communication disorders in selected hospitals?

2 To what extent are parents and health professionals 'aware of their roles in speech and language development for intervention of children with communication disorders in selected hospital?

1.5 Hypotheses of the study

It was hypothesized that parents and health professionals were aware of speech therapy services which going on in the country and were also aware of their roles in enhancing speech-language development for children with communication disorders.

2.0 LITERATURE REVIEW

2.1 Awareness creation techniques

In developed countries, it has been found that parental and health professionals' awareness of speech-language therapy is created through different sources like mass media such as radios, television, News Papers and magazines (Yolanda et al, 2016). Social medias like, you tube, Facebook, twitter, WhatsApp, and Instagram also has been used to create awareness among parents and health professionals about speech-language therapy (Bishop, 2012).

Parental awareness is also raised through training, dissemination of professional information, referrals and from published documents, articles and reports (Lowry, 2016). Effective involvement of parents in speech and language therapy has been found to be a key strategy to spread awareness and knowledge among parents and community in general (Barbosa & Fernandes, 2017) Speech and language pathologists have great role play in to creating awareness among parents, health professionals and community about the speech and language development for children with communication difficulties.

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2.2 Level of awareness about speech and language therapy among parents and health professionals

The level of awareness about speech and language therapy among parents, health professionals and community in general has been reported as significantly very low or high in some developed countries while very low in many developing countries. Some literature review demonstrate that parents and health professionals are aware of speech and language therapy services while many literatures report the limited awareness about speech and language therapy among parents, health professionals and public in general.

Due to guidelines and policies from international organizations, international laws and United Nations about the right of children and individuals with disabilities to access education and health services (United Nations, 2018, 2014, WHO, 2011; UNICEF, 2016), developed countries have tried to create awareness among families of children with communication disorders and health professionals about the need for early speech-language intervention.

Health professionals in developed countries are informed about communication disorders and there are guidelines for assessment and treatment of speech-language disorders. speech and language pathology is taught as a course in first year program for other medical disciplines like physiotherapy, occupational therapy and audiology.

A study on the roles of speech-language pathologists by students in other health programs has reported that health professionals have some level of awareness and knowledge related to speech-language therapy (Sullivan & Cleave 2003).

A study of Health Professionals' Awareness of Language Delay in Sohag, Upper Egypt (Mostafa, 2017), has reported that many health professionals who participated in the study demonstrated having awareness and were able to advise parents not to wait but should seek medical advice.

In Egypt a study on effect of parents' interaction on language development in children with communication disorders found that majority of parents who participated in the study had received awareness about intervention but were not able to use effective intervention methods to help in speech and language development of their children because they thought that speech therapists are the only specialists who should offer speech therapy and that parents' role is minimal (Safwat et al, 2014).

A study by Ayse, (2018) on views and knowledge of parents of children with speech and language disorders in Turkey found that some parents had limited awareness on speech-language therapy and few others were not aware of speech-language therapy services in the country and revealed that some parents were neither aware of the roles of speech-language pathologist, nor their roles in intervention process.

A study by Paily (2020) on public awareness of speech-language therapy services and the communication support needs of New Zealanders, has reported that majority of public had never heard anything about speech-language therapist, had never meet with speech therapist and majority of the participants reflected low or moderate level of understanding about roles and factors involved in speech and language therapy.

Lack of awareness and knowledge among parents has been found to be associated with factors such as the program being new in the country (Ayse, 2018), referral delay and absence of information from health professionals to parents about the need to attend speech-language therapy, remote areas, absence of public information and publications on speech and language therapy as well as lack of parental training and ineffective parental involvement in speech-language intervention (Saimons, 2015; Barbosa, 2017).

Parents or caregivers' failure to attend therapy services or non-adherence to treatment appointments can be as a result of lack of awareness or knowledge of available treatment services, importance of speech therapy, or lack of awareness of the roles of speech therapists and parental roles i Speech-language pathology is a new field in many countries in Africa. Some Sub-Sahara countries in Africa have few speech-language therapists, some of which are natives while others are foreigners from Western countries. Other African countries use occupational therapists and physiotherapists to help in providing speech therapy services (Marshall et al, 2018). However, little has been done to evaluate the level of parental and health professionals' awareness despite the fact that parents and health professionals are the important groups needed in the child's speech-language development n intervention process (Bultman & Svarstad, 2002).

In East Africa, speech-language therapy is affected by several factors including cultural and linguistic differences, religious barriers, negative cultural perceptions towards children with communication disorders, stigmatization of the children with communication disorders and their parents (Marshall, 2006; Ndugu & Kinyua, 2009).

The world Bank and World Health Organization (2011) has also acknowledged that, due to scarcity of speech therapists, speech therapy services are either rare or non-existent in most developing countries like Tanzania, (Wylie et al. 2016).

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A study in Kenya on assessment of care givers involvement in intervention program for speech and language disorders found that few parents had knowledge on speech and language therapy and they were not effectively involved in speech and language therapy program (Obure, 2018).

In Tanzania, Speech-language therapy services are provided in very few places and the number of children who attend these services is very low despite the high number of children with communication disorders in the country (CCBRT, 2015).

The statistical level of awareness and knowledge among parents of children with communication disorders and health professionals in Tanzania is currently not known since the studies to establish parental and health professionals' levels of awareness of speech-language therapy available in the country have not been done in any region including Mwanza region. Furthermore, no study has been done in any hospital to assess parental level of awareness of speech-language therapy although hospitals have been receiving children with communication disorders. Therefore, the current study will examine the parental and health professionals' awareness of availability of speech-language therapy services in the country.

A study on provision for children with speech and language difficulty evaluated awareness of speech-language among health professionals and special Need Educators. The findings indicate that few participants were aware of speech and language disorders and among the groups, health professionals had less awareness than teachers (Marshall, 2006).

A study on the area of Parental Perspective pre- and post- cochlear implantation in Tanzania reported that parents still rise concern on the need of speech and language development following the surgery (Hassuji, 2019).

2.3. Parental and health professionals' roles in speech and language development

2.3.1 Parental' roles in speech-language intervention

Over the last several years, the roles of speech-language therapists and parents have undergone changes. Parents are no longer observers of the therapy services, but are now acting as speech-language pathologists through parent- implemented speech-language intervention or parent- centered approach (Stephan, 2017; Hatcher & Page, 2019). The roles have shifted to the parents due to fact that children learn to communicate with their parents in daily activities and in conversational contexts. Parents not only have more time to interact with their children than speech-language therapists, but they also know their child's needs, strengths and weaknesses, and can make speech-therapy an ongoing process beyond the normal scheduled therapy (Lowry, 2016). Therefore, due to the great change that emphasizes the use of parent- implemented intervention, parents now have several roles to play in the presence or absence of speech-language pathologists. Parents have the responsibility of taking their children to therapy centers and participating in diagnosis, treatment plan and speech-therapy (Pamplona et al. 2000). Parents also have a responsibility to participate in home treatment program (Lowry, 2016), as well as advocate for their children's needs (Marshall, 2016). Other responsibilities of parents include monitoring, evaluation and reporting their child's progress to speech-language therapist.

Parents' awareness of their roles in home treatment program through parent-implemented intervention has been found to significantly enhance speech-language development of children with communication disorders (Lowry, 2016). Home treatment is one of the therapeutic intervention approach which integrate parents or families of children with communication disorders in provision of speech-language therapy in naturalistic environment where the child's linguistic and cultural context have influence on the child's language development (Lowry, 2016; Lowry, 2017).

One of the commonly known home treatment program that creates parental awareness and knowledge of speech-language therapy in developed countries is Hanen Programs (Robert & Kaiser, 2011). These programs are designed to help parents of children with communication disorders to learn how to promote their child's speech-language abilities by involving speech- Parents are the decision makers of their child's speech-language intervention. They have a duty to work in hand with speech-language therapists in making decisions on assessment process, treatment plan, therapy approaches, child's referral, discharge and the treatment cost. Effective involvement of parents in decision making help to increase parental awareness and knowledge of their roles in speech-language therapy (Davies, 2014).

However, some studies show that low level of parental involvement in speech-language therapy affect their knowledge of their roles in speech-language therapy (Ingber et al, 2018). Pappas, McLeod and McAllister (2008) study on parental involvement in speech intervention found that parents were not effectively involved in services plan, decision making and that they were also unhappy with their level of involvement in therapy services.

A study by Watts et al (2016) on parental beliefs and experience regarding involvement in intervention for their children with speech sound disorders reported that parents wanted to be involved in their child's intervention but they were reluctant to participate because they thought that speech-therapists are the only intervener of the child's speech therapy with a greater role than parents (Watts et al, 2016). The findings from a national review in England (Bercow, 2008) show that parents struggled to be

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considered by professionals as partners in supporting their child's speech as instructed by the guidelines in speech-language therapy but they were not participating any decision making for therapy services.

2.3.2 Health professionals' roles in speech-language intervention

In America, a scope of Practice in Speech-Language Pathology is documented with the clear guidelines that describe the roles of speech-language pathologists and other health professionals in provision of intervention for children with communication disorders. Health professionals get training in the field of speech-language therapy and they work closely with speech-therapists in public and private sectors towards the management of children with communication difficulties (ASHA, 2010). Furthermore, in America and England, every newborn child with risks of communication disorders like those with hearing loss, down syndrome, Cleft palate/lip are screened and further diagnosis processes is done for effective speech-language intervention process (Wood et al. 2015; Lang, 2014). Parents are informed about the significance of early speech-language intervention to their children.

Health professionals such as occupational therapists, physiotherapists, audiologists, pediatricians, nurses and other health care providers play significant roles in helping children with communication disorders (Peranich et al. 2010). They work as advocates for children's communication needs, participate in identification, detection, diagnosis and provision of referrals for further assessment and treatment of speech-language impairment. They have a duty to work with speech-therapists and other health professionals to attain complete health and function categories of the children with communication disorders (Mcquistin & Kloczko, 2011).

A study on physiotherapy speech, language and hearing science and occupational therapy interdisciplinary practice in disorders of human communication in Southern Brazil which had purpose to identify the perception of physiotherapists, speech therapists and occupational therapists on how the theme of interdisciplinary in health and human communication disorders is developed. reported that health professionals recognized the importance of interdisciplinary team working but due to the lack of awareness on the roles of some professionals, brought difficulties in Management of human communication disorders (Ferigollo & Kessker, 2017).

Even though it has been indicated by evidence-based researches that parental and health professionals' participation in speech and language therapy is crucial for effective speech-language intervention for children with communication disorders, no study has been done in Tanzania to assess parental and health professionals' awareness of their roles in speech-language therapy for effective intervention. The current study therefore sought to examine parental awareness of their roles in speech-language therapy process as a determinant for effective intervention in selected hospitals.

3. 0 METHODOLOGY

The study used both qualitative and quantitative approach. The researcher used descriptive survey design. The targeted population were parents of children with communication disorders with total number of 244 and health professional with total number of 60. The researcher used purposive sampling techniques to get the respondents both parents and health professionals. The sample size selected by the researcher were 85 parents of children with communication disorders including 20 with hearing loss, 33 with cerebral palsy, 14 with autism, 12 with down syndromes and 6 with cleft palate/lip and 15 health professionals including: 1 neurologist, 2 ENT, 1 plastic surgeon, 2 pediatricians, 4 physiotherapists, 2 occupational therapists and 2 audiologists. The researcher utilized the all available targeted population due to the limited number of population for survey study. The research instruments were closed ended questionnaires for parents, semi-structure interview with health professionals and document analysis for obtaining participants. The research procedure started by asking permission from ministry of health and from the selected hospitals. A pilot study was done in one hospital with the same characteristic to test the questionnaires and interview guides for validity. The developed questionnaires were given to a few subjects which were not included in the study sample. The completed questionnaires were scored manually. The same questionnaires were given to the same respondents after a period of three weeks. The completed questionnaires were again scored manually. A comparison between the answers obtained during the first and the second time was made. From the two respondents, spearman rank order correlation was employed to compute the correlation co-efficient in order to establish the extent to which the content of the questionnaire was consistent in eliciting the same responses. Every time the instrument was administered. A correlation coefficient (r) of about 0.75 and above was considered high enough to judge the reliability of the instruments as reliable for the study. The reliability on the parental questionnaire was 0.7.

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3.1 Demographic information of the respondents

3.1.1 Gender

The gender in this study was categorized into two groups that included parents and health professionals who were both males and females. The gender of parents is summarized in the table below

Table 3.1.1 Gender basing on parents

Gender	Frequency	Percent
Valid Male	17	20.0
Valid Female	68	80.0
Total	85	100.0

Table 3.1.1 above indicates clearly that majority of the parents who participated in the study were females while males were very few. Females were 68 (80%) while males were 17 (20%) of the sample size. Females were found to participate in rehabilitation of their children and are eager to take their children to the hospitals than males. This may be attributed to socio-cultural perspective that views women as having responsibility to look after their children and care for their children while men are dealing with economic issues in the family. The majority of the parents 73 (85.9%), were from urban areas, while only few, 12 (14.1%), were from rural areas. This may be attributed to the fact that all the selected hospitals were located in the town and thus there is larger population attending the hospitals than those from rural areas.

3.1.2 Education level of parents

The table below shows the summary of education level of the parents of children with communication disorders who participated in this study.

Table 3.1.2 Education level of parents/ caregivers

Level of education	Frequency	Percentage
Primary level	30	35.2
Secondary level	40	47.1
Diploma	8	9.4
Bachelor	5	5.9
More than one degree	0	
Informal education	2	2.4
Total	85	100.0

Table 3.1.2 above shows that the highest education level of parents who participated in this study was secondary education attended by 47.1% followed by primary education level attended by 35.2% of the parent population. However, a few parent participants, (2.4%), had informal education, (5.9%) bachelor degree and (9.4%) diploma education, while none of them had more than one degree. Though the level of education of parents could be a major reason for limited awareness, it was expected that level of education could contribute more in speech-language therapy practices and involvement but any one at any level of education can be aware of speech-language therapy services if they are effectively informed and involved. The study involved only parents who have been attending clinics in the hospital for some time and not those who had the first visit. Therefore, duration they had attended clinic was enough for them to be aware of speech-language therapy if they were informed despite their education level.

3.1.3 Categories of Communication Disorders

The table below shows the categories of children with communication disorders whose parents were selected to participate in this study.

Table 3.1.3 Categories of Parents of Children with Communication Disorders who participated in the study

Communication disorders	Frequency	Percent
Hearing disorder	20	23.5
Cerebral Palsy	33	38.8

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Autism	14	16.5
Down syndrome	12	14.1
Cleft Palate Lip	6	7.1
Total	85	100.0

The table 4.3.3 above shows that the highest number of parents of children with communication disorders were parents of children with cerebral palsy, n=33 (38.8%) followed by hearing loss n=20 (23.5%), Autism Spectrum Disorder n=14 (16.5%), Down syndrome, n=12(14.1%) and the least were parents of children with cleft palate/lip n= 6 (7.1%). The small number of parents of children with cleft palate can be attributed to fact that surgical interventions of cleft palate are not commonly done in the selected hospitals due to the prohibitive cost of the procedure. However, parents of children with cerebral palsy were the majority due to fact that the habilitations and rehabilitations of cerebral palsy are commonly done in the selected hospitals.

3.1.4 Age categories of children

The age of the children whose parents participated in the study have been summarized in the pie chart below

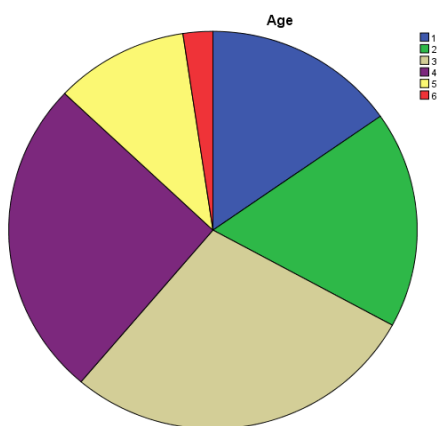


Figure 3.1.4 The age category of the children whose parents participated in the study

The Figure 4.1 shows the age groups of the children whose parents were involved in the study. The age range from 1 year to 6years. Majority of the children, a total of 24 (28.2%) were 3years of age, followed by age 4, a total of 22 (25.9%), age 2 a total 15 (17.6%), age1 a total of 13 (15.3%), age 5 a total of 9 (10.6%), and the least were aged 6, a total of 2 (2.4%). The age of the children whose parents were involved in the study was very significant because the age which range from 1-6 years is very critical for language acquisition. It is also during this age (1-6) that early speech-language intervention should be done among children with communication disorders.

3.1.5 Health Professionals level of education

The higher education level of the health professionals has been summarized in the table below:

Table 3.1.5 education level of health professionals

Education Level	Frequency	Percentage
Diploma	6	40
Bachelor	3	20
Masters	5	33.3
PhD	1	6.7
Total	15	100.0

The table 3.1.5 above presents the highest level of education of health professionals. Many of the participants had finished diploma followed by master’s degree, bachelor and last PhD. Almost all health professionals’ level of education was expected to contribute more to awareness on speech-language therapy services.

3.1.6 Health Professionals’ occupations

Health Professionals’ occupations are summarized on the table 4.7 below

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Table 3.1.6 Health Professionals' titles

Title	Frequency	Percentage
Neurologist	1	6.7
ENT	2	13.3
Plastic Surgeon	1	6.7
Pediatrician	2	13.3
Physiotherapist	4	26.7
Occupational therapist	3	20
Audiologist	2	13.3
Total	15	100.0

Table 3.1.6 gives the summary of the occupations of the health professionals who participated in the study. The titles were significant in this study because not all health professionals attend to children with communication disorders. The health professionals selected were those who commonly attend to children with communication disorders. They were purposively selected in order to give relevant data because they are the ones who have been closely providing medical and rehabilitation services to children with communication disorders.

3.1.7 Health Professionals' working experience

The summary of the health professionals' working experience has been shown in the table 4.8 below

Table 3.1.7 Health Professionals' working experience

Years	Frequency	Percentage
1-2	4	26.7
3-4	8	53.3
5-6	1	6.7
7 and above	2	13.3
Total	15	100.0

Table 3.1.7 above shows the working experience of health professionals. Majority of health professionals had a working experience of between 3-4 years and 1-2 years. This indicates that majority of the health professionals who participated in the study had enough experience in working with children with communication disorders. Working experience in this study was considered because the experience is an indication of how long a certain health professional has been attending to children with communication disorders. With working experience, health professionals were in a better position to provide more detailed information about how the children with communication disorders have been assisted. Health professionals who have been working with children for longer time were expected to give more details about intervention process in the selected hospitals than those who have been working with children for shorter period of time.

4.0 RESULTS AND DISCUSSION

4.1 Parental and health professionals' awareness of speech-language therapy services

Table 4.1 parental awareness of availability of speech-language therapy

Question	Response	Frequency	percentage
Have you ever heard about speech-language therapy services?	Yes	11	12.9
	No	74	87.1
	Total	85	100.0
Do you know any hospital that provides speech therapy in Tanzania?	Yes	8	9.4
	No	77	90.6
	Total	85	100.0
How did you come to know that speech therapy	Mass media (TV, radio, newspaper)	2	2.4

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is provided in that hospital?	Social media (watsapp, facebook, twiter)	2	2.4
	Readings	1	1.2
	Referral	3	3.5
	Informed by health professionals	4	4.7
	Not yet	73	85.9
	Total	85	100.0
Do you know an expert who deals with speech-language therapy?	Yes	3	3.5
	No	82	96.5
	Total	85	100.0
Are there parents in your community who have children with communication disorders but are not aware of speech-language therapy?	Yes	26	30.6
	No	24	28.2
	I have no information	35	41.2
	Total	85	100.0
Have you ever heard parents are talking about speech-language therapy for their children?	Yes	9	10.6
	No	76	89.4
	Total	85	100.0
Have you ever heard health professionals addressing the community or parents about speech-language intervention?	Yes	78	91.8
	No	7	8.2
	Total	85	100.0
Do you know the cause of speech-language impairment for your child?	Yes	10	11.8
	No	75	88.2
	total	85	100

From the table 4.1 above on parental awareness of availability of speech and language therapy services for effective intervention, the findings indicate that many parents have very low awareness of speech and language therapy. When parents were asked if they have heard about speech therapy services, only 11 (12.9%) were in the affirmative while majority of them 74 (87.1%) said no. This means that many parents who attend clinics in three selected hospitals in Mwanza have never heard about speech-language therapy services in the country. When parents were asked if they know any hospital in Tanzania that provides speech therapy, majority of the respondents 77 (90.6%) admitted lack of awareness while only 8 (9.4%) were in affirmative. Therefore, majority of parents don't know even the hospitals in Tanzania which provide speech and language therapy while only few of them know the hospitals that concern with speech therapy. Majority of the participants, 73 (85.9), reported that they have not yet received information on speech therapy services from any source while a few of them have ever received information as follows: mass media 2 (2.4%), social media 2 (2.4%), reading 1(1.2%), referral 3 (3.5%), from health professionals 4 (4.7%). The findings indicate that many parents do not have access to information about speech-language therapy services available in some hospitals in Tanzania. Majority of parents,82 (96.5) still do not know any individual professional who offer speech-language therapy service

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while only 8 (3.5%) admitted to have known a speech therapist; This, therefore, means that speech-language therapists are not well known in the selected hospitals. The findings also show that many parents have not heard other parents talking about speech-language therapy for their children. 50 (58.8%) admitted no, 5 (5.9) admitted yes while 30 (35.3%) reported that they have no information. If many parents are not aware of therapy services available they will have nothing to tell about it while on another hand when they are aware, they will keep talking or telling other parents about such intervention. Majority of the parents, 78 (91.8%), also reported that they have never heard of health professionals addressing community about speech-language therapy services while only 7 (8.2%) admitted having heard health professionals talking about speech therapy services. When they were asked if they know the cause of speech and language impairment for their children, majority of them 75 (88.2%) admitted no while only 10 (11.8%) responded affirmatively.

Lack of parental and health professionals' awareness of speech-language therapy available in the country is among the factors that hinder effective speech-language intervention process. Parental and health professionals' awareness of speech-language intervention services available in the country is a primary component that encourage participation in any designed intervention program (Robert,2011 & Ayse,2019). Therefore, the findings of this study concurs with Ayse (2019) study on the views and knowledge of parents of children with speech/ language disorders on speech and language therapy in Turkey that found that parents have limited awareness and knowledge in speech and language therapy.

Qualitative data from interviews with 15 health professionals was based on 7 items on the same objective. The first item sought to establish whether the participants had ever heard of any hospital in Tanzania where speech-language therapy service was provided and the name of that hospital if any.

The majority of the health professionals reported that they have heard about speech-language therapy services in Tanzania while only few of them said that they are not aware if speech-language therapy services are provided in some hospitals in Tanzania. However, those who reported that they have heard about the services in Tanzania said that they don't know much about speech therapy services and its effectiveness in those health centers due to limited information from the health centers concerned with therapy. When asked to mention the hospitals where speech therapy is provided majority mentioned Muhimbili National Hospital while only a few mentioned Christian Medical Center (KCMC), however, they were not sure if the services are still there. None of the respondents mentioned CCBRT and Hear Well clinics in Dares- Salaam though these are also centers where speech therapy services are being provided.

One of the health professionals said,

"yes, one of my colleagues told me that speech therapy is provided in Muhimbili National hospital but I don't have more information about how the services is being done and its effectiveness for children who attend there".

The second item of the interview guides sought to establish how health professionals get information about speech-language therapy in their hospitals. The all health professionals reported that it is difficult to get information about speech therapy in their hospitals because they don't have an expert in such field. They also reported that in the hospitals there are no trainings, seminars or workshops that they can attend to get information about speech-language therapy services. Those who reported that they have heard about speech language therapy said that they got information from some parents and health professionals who have heard about the services. Others reported that they got general information about speech and language therapy through internet while some reported that they got information from speech therapist who was volunteering some years ago but also admitted further that currently it is not easy to get such information from an expert.

One of the respondent said,

"there was one speech therapist who was volunteering in our hospital, she told us about speech therapy but when she left we are no longer accessing information related to speech and language therapy"

Another said that,

"we don't have system that train, or provide awareness among us about how to help children with speech impairments who come in the hospital. therefore, this can limit information sharing among health professionals".

The 3rd item of the interview guides sought to found out what health professionals know about early speech-language intervention for children with communication disorders. The majority of the respondents reported that they have limited knowledge about speech therapy while a few of them, specifically physiotherapist, occupational therapists, ENT and audiologist reported that they only have general knowledge that they got when they were undertaking their training.

One of Occupational therapists had this to say,

"I do get many children with communication challenges and I attend only medical conditions that I know but I can't help them in the aspects of speech and language because I have limited knowledge in such field"

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The 4th Item of the interview guides intended to assess general awareness of speech-language therapy among health professionals for intervention process. Majority of them said that they have little awareness about speech therapy. They reported that the absence of speech therapists in the hospitals affect the information system about speech therapy. They don't have speech therapists to whom they can refer a child with communication challenges, so they end up telling parents that the child will be able to talk later. They added that few health professionals know about speech-language therapy because speech therapy services are not available in most parts of the country.

Another health professional said,

to say truth many health professionals are not aware of speech-language therapy because several time you can hear doctors telling parents that your child has speech delay but he/she will get better later; this is because they don't know the kind of intervention the child need in order to develop with language.

When health professionals were asked about the general awareness of speech-language therapy among parents of children with communication disorders, they reported that many parents are not aware of speech-language therapy because they rarely hear parents discussing and raising concerns about speech-language therapy. Parents are not aware of speech and language developmental milestones because they can't distinguish between normal and abnormal language development

Some health professionals reported that a few parents know that their children are not able to talk. So, they raise concern by asking why their children are not able to talk when other children of the same age around them are talking. This can be the indicator that some parents are able to realize that there is a problem, however, they don't know what to do and to whom they can refer the child for management. This was corroborated by one of health professionals who had this to say,

"I have met with some parents asking me why their children are not talking while other children of the same age are talking well. One parent specifically told me 'My child can't even say baba, mama, do you think will he be able to talk?'"

It was also notable that majority of health professionals reported that many parents are not aware of speech-language therapy because some parents attend clinics for 3-4 times but cannot raise concern about language delay while others focus only in doing physiotherapy, occupational therapy and other medications. Parents come to realize that their children are having speech and language impairment when it is very late. Some of them do not focus on speech-language problem of their children because they consider it as it less life threatening to their children, while others do not know if there is a professional who can assist with speech-language therapy. Many parents up to the age of 4 years still hope that their children will speak; this is due to their inability to distinguish between normal and abnormal language developmental milestones. The absence of speech- language pathologists in the hospitals was mentioned by respondents as one of the factors that lead to lack of awareness among parents of children with communication disorders. Parents do not know individual professionals who deal with speech-language therapy and this may be the reason why they don't know the importance of early speech and language intervention.

One of the health professionals said,

"parents of children with cleft palate/lip whose children get repair get less to focus on speech-language because they are not aware of speech-language therapist, they don't know if after surgery their children need speech therapy. Some parents do pay attention on physical appearance of the child and that when she/ he has been repaired can compensate the speech issues."

Information sharing among multidisciplinary team is very important in speech and language management for children with communication disorders. Health professionals and parents should be informed and given knowledge related to speech-language therapy so that they can participate effectively in intervention process. Lack of information sharing about speech-language therapy process among health professionals and parents have been found to some of the key factors affecting their effective participation. It is through information sharing that awareness about speech and language therapy services can spread in the country.

The findings of this study therefore demonstrate that majority of the health professionals and parents have limited general awareness about speech and language therapy services. This concurs with the study by Marshall (2010) who reported that the level of awareness was low among health professionals than special need education teachers in Tanzania.

While the results of this study show that there is very limited information and knowledge sharing about speech and language therapy services in the hospitals, it is a contrast to the findings from developed countries like American, Britain, where there is system of information sharing about speech and language services among health professionals (ASHA, 2010).

The findings of this study have also demonstrated that health professionals and parents have limited sources to get information about speech and language therapy. A few of them reported that they get information from some colleagues who have heard about the services in the country while others got information from speech therapists who were volunteering some years ago.

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However, in America, India, Britain and South Africa, health professionals access information about speech and language therapy from many sources like social medias, mass medias, professionals' information sharing, reading books and through internet (Yolanda et al, 2016; Bishop, 2012).

4.2 Parental and health professionals' awareness of their roles in speech-language therapy

Table 4.2.1 parental' awareness of their roles in speech-language therapy

Question	Response	Frequency	Percent
Do you know your responsibilities in helping your child with language impairment?	Yes	28	32.9
	No	57	67.1
	Total	85	100.00
Are you able to help your child in speech-language development?	Yes	61	71.8
	No	24	28.2
	Total	85	100.00
do you know the communication skills that you can use to improve your child's language?	Yes	5	5.9
	No	80	94.1
	Total	85	100.0
Do you practice talking with your child at home?	Yes	43	50.6
	No	42	49.2
	Total	85	100.0
Do you take your child to any hospital for speech-language therapy?	Yes	2	2.4
	No	83	97.6
	Total	85	100.0
Do you raise concerns to the health professionals about speech-language problems of your child?	Yes	15	17.6
	No	70	82.4
	Total	85	100.0

Table 4.2.1 gives a summary of parental awareness of their roles in speech and language therapy for effective intervention. Majority of the parents, 57 (67.1%), reported that they don't know their responsibilities in helping their children with communication disorders in speech and language development and only a few, 28 (32.9%), admitted that they know their responsibilities. They also reported that they have challenges in helping their children in speech and language development since majority, 61 (71.8%), said that they are not able while only 24 (28.2%) admitted that they are able to help their children. When parents were asked if they know communication skills that they can use to enhance speech and language development for their children, majority of them 80 (94.1%) admitted no while only 5 (5.9%) replied yes. When parents were asked if they practice talking with their children at home, 43 (50.6%) confirmed that they practice talking with their children while 42 (49.2%) said do not. This therefore means that almost half of the parents practice talking with their children at home as a way of improving speech and language development of their children. The study also found that majority of parents, 78 (91.8%), are not taking their children to the hospitals or any health center for speech and language therapy, and that only 7 (8.2%) respondents were able to take their children to hospitals or any center for speech and language therapy. On the question of raising concerns to health professionals, majority, (82.4%) said they don't raise any concern while only 15 (17.6%) respondents said that they do raise concerns about speech and language problems of their children to health professionals

From interviews with 15 health professionals, three questions were addressed to answer the objective concern with health professionals 'awareness of their roles in speech-language therapy process. The first question sought to establish how health professionals help children with communication disorders who attend their hospitals to improve on speech and language development. Majority reported that they do help children with communication disorders to develop speech and language to some extent but the support they give is usually not effective because they lack expert knowledge in the area of speech therapy. They also added that many children with communication challenges attend clinics yet they don't have speech therapist to help them in speech and language development.

One respondent had this to say:

"I am sure that children with communication disorders are not effectively helped in the aspect of speech and language development because many health professionals lack such knowledge; The children get other medication but left without

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speech-language therapy, this tell that children are not effectively helped in the hospital in areas of speech and language development”.

Few of the respondents reported that children with communication disorders are sometimes helped in the aspect of language because they do tell parents to talk with their children at home, advising them to allow children to interact with other children. This was captured by another respondent as follows:

“I can say that we do help them by telling their parents to do talk with their children at home and I do advise parents to face their children when talking to them.

I think we are helping them according to what we know for, example I do give some parents home activities that target to help their children to acquire language and when speech therapists were available, I used to tell parents to seek speech therapists”.

When asked about the roles they play in helping children with communication disorders who attend clinics in areas of speech and language development, only occupational therapists reported that they sometimes instruct parents to keep talking with their children at home, they also give some basic activities that parents should give their children to support language development. Some of them reported that they tell parents to seek speech therapists when they are available while few of them said that they were providing referrals only when there was speech therapist who was volunteering.

One of the occupational therapists said,

“I do give some parents simple activities and tell them the ways to interact with their children at home”

One of the audiologist said,

“ Because it is not area of my specialization, I am disappointed to how can I help the children who come here with speech problem, so, I do tell parents that we don't have an expert in such field”.

When asked if they are satisfied with information and referral system they get in the hospital related to speech and language intervention, all of them reported that they are not satisfied with information and referral system because they have never heard of any speech therapist informing them about speech-language therapy. They also reported that even in the hospitals there are no presentations or seminars on how to handle children with speech-language impairment.

One of the respondents said,

“I am not much satisfied with information about speech and language therapy because, I have never received any training or go to the workshop for that though I do meet with children who have communication challenges in this hospital”.

Physiotherapists reported that that in some cases, other health professionals refer children to them thinking that they are an expert in such field while other health professionals reported that they rarely get referral within the hospitals but they get some referrals from other hospitals.

“I rarely get referral from my colleagues that instruct the issue of speech and language impairment if not those who come from other provinces because they know that our hospital is the lake zone hospital that deals with many health issues. I can say that my colleagues do not effectively provide referrals may be due to lack of the awareness about speech therapy”.

One of the occupational therapists said,

“Many health professionals are not aware about speech and language therapy, that is why some of them refer children to us with notation that we are one who deal with any rehabilitation”.

These findings show that majority of the parents of children with communication disorders in the selected hospitals have little awareness of their roles in speech and language therapy than health professionals. Parents do raise concern about speech and language impairment for their children when it is too late, they have little awareness about their roles in helping their children to develop language and speech. This is a case why parents fail to take their children to the hospitals to seek speech therapy services as major concern.

The findings concur with Ferigollo and Kessker (2017) study on physiotherapy, speech, language, hearing science and occupational therapy interdisciplinary practice in Brazil that aimed to identify the perception of physical therapists, speech therapists and occupational therapists how the theme of interdisciplinary in health and human communication disorders is developed reported that health professionals recognized the importance of working as interdisciplinary team but due to lack of awareness of their roles, some professionals had difficulties in Management of human communication disorders.

Over the last several years, the roles of speech-language therapists and parents have undergone changes. Parents are no longer observers in speech therapy services, but are now acting as speech-language pathologists through parent- implemented speech-language intervention or parent- centered approach (Stephan, 2017; Hatcher & Page, 2019). Furthermore, health professionals like occupational therapists, physiotherapists, audiologists, pediatrician, nurses and other health providers, play significant roles

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in helping children with communication disorders (Ministry of Children and Family Development, 2009). They work as the advocates for children's communication needs, they are also concerned with identification, detection, diagnosis and provision of referrals for further assessment and treatment of speech-language impairment.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Parental and health professionals' awareness of ongoing speech-language therapy services is a crucial point for effective participation in speech and language intervention process. According to finding of this study, it can be concluded that many parents of children with communication disorders were not aware of speech-language therapy services that is going on in the country. They were also un aware of the roles they are supposed to play to enhance speech and language development for their children. They don't know individual expert who concern with speech-language therapy. The study also concluded that some health professionals lack awareness about speech therapy, they are not informed about speech therapy and thus there is no effective referral and information system provided for speech-language intervention.

5.2 Recommendations

Basing on the finding of this study, the following recommendation are suggested:

- 1 since parental and health professionals are one of the multidisciplinary team required in speech-language therapy process, awareness should be created among parents and health professionals
- 2 parents and health professionals should be trained in orders to have knowledge required to enhance speech-language development
- 3 speech-language therapists from other hospitals should like Muhimbili should pay visits to the other hospitals where speech therapists are not available
- 4 speech-language therapists and other allied team should raise public awareness about speech and language intervention through different social medias and mass medias

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Development of Application-Based Field Tennis Training Model



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ABSTRACT: This study aims to produce a model product for tennis tactics training in the form of an application and to determine the feasibility of a model guide for tennis tactics training models. This research is development research using a development research model. Validation is carried out by experts in their fields with material experts and media experts. The trial consists of small-scale trials and large-scale trials. Subjects who participated in this study amounted to 20 samples. The result of this research is to create a field tennis tactics training model that is developed and packaged in the form of an application. The tactical training model developed is classified as "very feasible" based on the results of validation carried out by material experts, media experts, and assessments from coaches and players. Based on these results, it can be concluded that the developed tactical training model is feasible to use.

KEYWORDS: application, tactics practice, tennis

INTRODUCTION

Information technology in the era of globalization in the last two decades has changed the perspective and mindset of the world community which demands acceleration and efficiency of work and the dissemination of information with various kinds of innovations made. Technology and sports are also inseparable, the progress of various fields in sports both in achievement, education, and sports for health is currently heavily influenced by technology (Cojocar et al., 2022); (Neus & Shalamov, 2021). In addition to sports education, technology also affects achievement in sports such as tennis. Tennis is one type of sport that is growing and is in great demand in a society where this sport is included in a world-class competitive sport with millions of players and fans around the world (Malchrowicz-Moško & Poczta, 2018).

Achievement and a career in tennis is not an easy thing, the challenges given will always change as science and technology advance and of course, the career challenges are also different at each stage or level of the player. Being a professional tennis player is not easy; it takes a lot of supporting aspects to be successful and competitive at the international or top level; the fact that on the field, there are many players who find it difficult in several phases, the most obvious thing is when the players enter the transition or transition phase. From junior players to senior players, many have experienced difficulties and frustration, and finally failed to move to the next stage.

The results of research conducted by (Jiri, 2017) show that players who occupy the highest positions in the junior rankings are caused by the extraordinary training load and the many tournaments they participate in, but in the next stage, they do not develop into the world's best athletes, it seems that the burden he is facing too big for that age and that is one of the reasons for the lack of progress at the older/senior age. Research by (Reid et al., 2007, 2009) provides results related to data on players in the transition from junior to senior level; this study links the top 20 rankings in international junior tennis and the subsequent achievement of the top 100 professional rankings. The data obtained are 51% and 63% of the top 20 junior boys and girls who then reach the top 100 professional tennis rankings.

Competitive tennis players at the junior age experience many problems during the transition to seniors; this is due to several things; research conducted by (Casagrande et al., 2018) states that there is a decrease in 3 aspects that cause elite junior players to take time who take longer to move on to seniors or even choose to withdraw from a career in playing tennis, the three dimensions considered are a sense of underachievement, physical/emotional exhaustion, and devaluation. These things happened because during the transition period from junior to senior, in order to pursue initial rankings in the senior group, players had to meet demands such as participating in more matches which automatically became a longer journey, strengthening commitment, increasing motivation, and taking action. The decision to continue a career or not, many things

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become complicated during this transition period must be accommodated so that they can continue their career. Otherwise, the opposite will likely happen. Vanden et al (Pummell & Lavallee, 2019) stated that research conducted in Belgium has shown that 24% of elite junior athletes fail to continue to the senior level, and only 17% enter the senior national team.

In tennis at the top or world level, players who want to be competitive require to have superior skills and training abilities in four main areas: tactical; technical; physique; and psychological (Kovacs, 2007); it cannot be denied that these four elements are the focus of improving a player's ability. Modern players often hit the ball with high aggressive speed to get points and beat their opponent's (Roetert et al., 2009).

The results of the previous studies that have been described above state that there is a gap between expectations and reality on the field, where talented and high-ranked players in the juniors should also be able to compete at the next level, but the data in the field states the opposite, not all players who are successful in junior can succeed also in the next age or level. There are so many factors that become the reasons and problems at this stage because to be successful in tennis requires many things such as talented players, good training, appropriate equipment, and an understanding of aspects of sports science related to the game in addition to that. the integration of anthropometric, physiological, technical, tactical, and psychological characteristics will also affect (future) performance.

Players have difficulty in the transition from junior to senior for many reasons, but games at the elite level talk more about tactics and strategies to win a match, therefore coaches must be able to focus on these aspects in order to be competitive at that level. The game continues to grow and the abilities that an athlete must have must also be more than before, on this research opportunity to be developed, the researchers made the development and application for tactical training which is expected to help in the training process in order to improve the skills and understanding of athletes at that aspect. The development of an application-based training model that researchers will carry out is deemed appropriate to the problems that exist in the field. It is expected to help in advancing the ability of an athlete on that side.

METHOD

The research method used is Research and Development (R&D). Research and Development (R&D) is a research method used to produce certain products and test the effectiveness of these products. The product design for developing a tennis tactics training model with an application will be made based on the steps, namely needs analysis, product design, product development, initial product, product validation, and final product. The trial subjects that will be carried out both on a small and large scale are athletes who have basic technical movement skills, both male and female, the number will be divided by approximately 8-10 in small-scale trials, 12-16 in small-scale trials. big. The data obtained through trial activities are classified into two, namely quantitative data and qualitative data.

FINDING

The results of the assessment of the material expert on the application-based tennis tactics training model to improve the quality of the athlete's game are 93% and are included in the very valid / very feasible category. the results of the assessment of media experts on the application-based tennis tactics training model to improve the quality of the athlete's game are 93.75% and are included in the very valid / very feasible category.

The results of the men's small-scale trial show that the trainer's assessment of the tactical training model is 93.75% which is included in the very good/very feasible category for development. the assessment of the players on the application-based tennis tactics training model is included in the good/worthy category to be developed.

The results of the large-scale trial of men showed that the trainer's assessment of the product of the tactical training model in the large-scale trial was in the good/decent category. The player's assessment of the tennis tactics training model product on a large-scale trial in the very good category. The final result of the application-based tennis tactics training model development product is shown in the following figure:

Development of Application-Based Field Tennis Training Model



Product Homepage Image



Image of Menu Contents Page

DISCUSSION

Based on the results of the analysis, it can be concluded that the product of the tactical training model developed is feasible to be used as a guide for proper tennis tactics training. Based on the feasibility test and assessment shows that this exercise model is very feasible. These results are supported by a study (Kolman et al., 2019) that tactical skills are defined as knowledge of in-game adaptation and decision-making activities in the field. These technical skills are also necessary for the proper execution of tactics. Thus, the quality of tactical skills can also increase along with the development of technical skills. This is evidenced by the more frequent involvement of players in the competition that junior players use different service tactics or the winner usually makes fewer own mistakes when hitting from the offensive zone. On the other hand, tactics are associated with making decisions when playing, based on the available options and the associated risks and opportunities (Mart, 2018; O'Donoghue, 2009).

Higher-level players have better decision-making skills due to knowledge and experience that makes performance improve progressively. Combining technical and tactical skills assumes great importance in winning every point in the match. Technique plays a functional role in achieving tactical goals. For example, if the tactical goal is to make the opponent move off the field, a short cross-ball strategy is needed that requires a certain ball speed, in addition, cognitive knowledge such as understanding what to do in certain situations with the right hitting technique greatly affects the performance of tactical quality. For players, this tactical ability will help players in achieving their tennis career (Maccurdy, n.d.; Masters et al., 2008; Strecker et al., 2011). Game tactics in tennis must be trained as a single unit in every training session. The goal is for playing tactics to become an automatic pattern, which in turn will enrich playing tactics for players. In more detail, playing tactics are grouped into single and

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double play tactics, playing patterns in the back, middle, and near net areas. Therefore, there are many factors that can be considered in practicing playing tactics.

Since the game of tennis is an open skill, the coach's ability to always associate every technical action with tactics should be a concern. The process of open skills which includes the ability to perceive, the ability to make decisions is a very important input for the implementation of skills. For this reason, tactical training is a very important part given to players from the start, especially in understanding tactics. So from an early age, the whole process of practicing tennis skills itself has been given thoroughly.

The use of an application-based tennis tactics training model is an alternative for understanding tactics for players and coaches. Tennis players need a training program relevant to their developmental stage and age group that includes physical, technical, mental, and tactical components. This tactical training model can add insight into the tactical dimensions of tennis players. Therefore, this tactical training model will be very attractive for coaches who want to optimize the success rate and quality of players and design training activities that are tailored to the conditions when playing.

CONCLUSION

Based on the results of the research and the results of data analysis that has been carried out, it can be concluded that (1) The tennis training tactics training model is proven valid according to material experts and media experts. (2) The model of tennis practice tactics training is proven to be suitable as a guide for proper tactical training for coaches and players. The tennis training tactical training model can be used as a guide or guide for doing tactical training and in the future this product can motivate coaches and players to improve the quality of the game.

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E- Accounting Practices of Manufacturing Firms in Bangladesh



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ABSTRACT: Technology plays a key role in today's business environment. E-accounting practice is a newly emerging concept in the field of accounting. In accounting documents and records exist in digital form as a substitute for a paper. The purpose of this study is to investigate the E-accounting practices of manufacturing firms in Bangladesh.

The population of the study consisted of all listed companies have been operating in Dhaka Stock Exchange Ltd (DSE). Questionnaires were distributed among them through email; the researcher designed the questionnaire to target employees who worked at these companies.

The hypotheses of the study were tested using the appropriate statistical methods, which are demographic data, descriptive and reliability statistics, a correlation matrix, and regression analysis were used for the analysis. The software used was the IBM Statistical Package for Social Science (SPSS) version 25. The results of this study indicate that implementation of e-accounting practice at these companies caused to effect on properly implementing keeping document in digital form. Results also show that measures of practical e-accounting practices items are more closely associated with record keeping documents and will effect on using e-accounting systems in these companies. It is recommended that the national regulators in collaboration with the accounting bodies should organize accounting training programmes for top level managers of manufacturing firms on proper e-accounting practices.

KEYWORDS: E-accounting, Accounting practices, Manufacturing firms and Top level Managers

I. INTRODUCTION

Accounting is an integral part of any company's business, as it not only helps companies keep track of their financial numbers and transaction events, but is also in many parts a legal obligation. The rise of the Internet and digitalization have facilitated the spread of electronic accounting (E-accounting), or accounting software, which has helped companies automate their accounting processes to a large extent. While digitized solutions for accounting are becoming more prevailing there is also a rising demand for software that can provide a good user experience (Hassenzahl, 2008).

Accounting in general can be seen as an important business function for any economic entity, for two main reasons: first of all, it is legally required; secondly, it provides important financial information to an entrepreneur, which is essential in financial operations and decision-making. Many companies greatly rely on computers and software to provide accurate information to effectively manage their business.

A global application of e-accounting functions, accounting research and the accounting training and education through various computer based /internet based accounting tools such as digital tool kits, various internet resources, international web-based materials, institute and company databases which are internet based, web links, internet based accounting software and electronic financial spread sheet tools to meet the demand for modern and reliable information.

Today's world is internet driven world in which everything is enabled. In the same beat, now accounting is possible anywhere, anytime through internet which is known as online Accounting or E-accounting practices is new development in the area of accounting and there is lack of knowledge about this new concept. Thus the objective of this paper is to get familiarity with e-accounting practices among manufacturing firms in Bangladesh.

II. THE PROBLEM STATEMENT

A fundamental function of e-accounting structures is to avail accurate information to owners and managers of manufacturing firms operating in any business for aspects of financial and accounting practices that have changed by spread of electronic

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accounting systems. A number of firms have not given much attention to e-accounting record keeping in relation to their business transaction, despite its importance in the success of businesses. Do Bangladesh businesses have adequate e-accounting systems in place to produce the data needed by business partners? This is the major study question. It is crucial for the researcher to consider technology advancement and those who are able to maintain accurate e-accounting records in light of the answer to the aforementioned issue.

III. LITERATURES REVIEW

A number of researchers had conducted research studies on technological issues in different manners. The reviews of the past studies are essential for building up basis as well as hypothesis on any research study. The following studies are reviewed in this regard.

- 1) **Amiduet al. (2011)**, described electronic accounting as an accounting system that relies on computer technology for capturing and processing financial data in organizations. Conceptualizing e-Accounting to connote the application of computer technology in capturing an organization financial data might give it a narrow meaning. The reason is that it makes no recourse to other technologies.
- 2) **Abdul Ghani (2012)**, Financial documentation, review, reporting and evaluation through accounting operations are a corporate responsibility. Financial position means assessing a company's sustainability, prosperity, and profitability. Therefore, most companies use their data using machine-based information technology, especially electronic accounting systems that make extensive use of information technology, to design and provide clients.
- 3) **Deresee Lakew, Zerihun Biribirsa , (2017)**, study examined the financial record keeping and reporting practices of MSEs in west Oromia sub-region . 200 sample MSEs selected from 3 towns in west Oromia region are used for this study. The finding indicated that the majority of MSEs didn't keep regular accounting record and prepare periodic financial report. The main reason mentioned by the respondents includes: smallness of business, expensive of qualified accountants and lack of awareness about the benefits of accounting
- 4) **Esmeray and Esmeray, (2020)**, E-accounting involves making use of accounting software and computers to record, store and analyze financial data and it makes sure that the information of critical financial is controlled, accurate and safe from corruption of data.
- 5) **F. Hajera (2016)**, Drawbacks: a computer is used; it has its own problems with the implementation of the computerized computer accounting system; data can be lost due to faulty hardware or software. In addition, data loss or changes in data may occur as a result of fraud or misappropriation.
- 6) **Garedew Ganecho Gebremedihin, (2019)**, Examined challenges that affect the application of accounting practice of micro and small scale enterprises is common difficulties. To achieve the research objective the researcher applied descriptive research design, primary data were collected by using proportionate stratified sampling technique from samples of 209 owners. The result of the study concluded that respondents have understanding on contribution of accounting practice for growth of enterprises.
- 7) **Ghaffar et al., (2019)**, E-accounting adoption is critical to the firm's ability to handle all financial information and use it to make decisions. As a result, the business may be well taken care of, and the profitability of firms, particularly manufacturing firms, can be improved. E-accounting adoption is defined as using a computer (software and hardware) for financial reports preparation and accounting works at organizations whether the accounting software is built in the firm or developed by a vendor
- 8) **Hajera, (2016)**, One of the aspects of information technology effect on enterprises and institutions is quantitative and qualitative changes of information and accounting management systems. The leading developments are that of data and activity exchange, as well as the expansion of intranet and internet information networks. Consequently, we can claim that the role of electronic information networks in releasing financial and business information of the organization is unavoidable.
- 9) **Muhrtala and Ogundeji (2013)**, Describe e-Accounting as a system that handles both financial and nonfinancial transactions that directly affects the processing of financial transactions. However, in the context of this study, e-Accounting refers to any accounting system that utilizes ICT applications tools and devices in gathering, recording, analyzing, processing, interpreting, communicating accounting transactions and information concerning economic events to enable stakeholders to make informed decisions.
- 10) **Onaolapo ,(2014)**, Asserts that record keeping gives substantial information about the financial strength and current performance of an enterprise and therefore managers find those records useful in making decisions. Complementarily.
- 11) **Patel. K.J. (2011)** Expressed his views in his research article entitled "adoption and Impact of E-Accounting",that, how E-

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Accounting is adopted in any type of business organization. He also explained the overall impact of E-Accounting in the business concern.

- 12) **Romney and Steinbart (2012)**, an information system organized means of collecting, entering, and processing data and storing, managing, controlling, and reporting information so that an organization can achieve its objectives and goals for manual accounting system.
- 13) **Tijani and Mohammed (2013)**, Define e-Accounting as a system that is significantly enabled by computer technology designed in accordance with techniques relevant to achieve qualitative decision-making objectives of the business.
- 14) **Sekyereet al. (2017)**, Identify certain determinants variables of the computerized accounting system variables such as perceived usefulness, perceived ease of use and its effect on the accurate financial report in listed organizations.

Whereas this present study makes an expression on both quantitative and qualitative characteristics of electronic accounting practices manufacturing firms in Bangladesh. Through this accounting system, the companies or accountants can practice their accounting functions or accounting information systems (AIS) using ICT. Organizational financial transactions are recording, classifying and summarizing using ICT without any paper and to access anywhere they wish at any time.

IV. OBJECTIVE OF THE STUDY

The major objective of the study is to examine and evaluate the current status of adopting and implementing the e-accounting practices of manufacturing firms in Bangladesh. The research work entailed the following three specific aims. Each research aim was pursued in the manufacturing firms enlisted under Dhaka Stock Exchange Ltd by using appropriate scientific survey methods and materials.

- ❖ To determine the extent to which record keeping and basic source of e- accounting procedure have been fulfilled in firms?
- ❖ To examine the challenges facing companies' new area of accepting e- accounting.
- ❖ Finally, what are the affecting properly applying e-accounting practices in firms?

V. RESEARCH HYPOTHESIS

The following null hypotheses have been developed and examined by this research study:

- H₁ There is no significant difference in factors influencing the adoption of e-accounting record keeping and practices in the selected firms in Bangladesh.

VI. METHODOLOGY OF THE STUDY

This study used quantitative methods and data collected through a questionnaire where the forms were distributed to the respondents to investigate the implementation of e- accounting practices among manufacturing firms in Bangladesh.

A. Study Area

The study was conducted in manufacturing industries enlisted under the Dhaka stock Exchange Ltd of Bangladesh. The area was chosen for this study because it is the growing up of a number of industrial in the country. It thus, makes it a viable source of information for this research.

B. Mode Of Investigation

The survey approach was adopted for this research. This approach enabled the researcher to collect large amount of data in a short time for fairly low cost (Kelly, Clark, Brown & Sitzia, 2003).

C. Sample And Sampling

The population of the study consisted of all listed companies have been operating in Dhaka Stock Exchange Ltd (DSE). Questionnaires were distributed among them through email; the researcher designed the questionnaire to target employees who worked at these companies.

D. Instrumentation And Data Collection

Based on the research objectives, an online survey questionnaire was developed. The questionnaire was divided into three sections: the demographic profile of respondents, practical e-accounting practices items, and challenges faced by manufacturing firms in keeping proper accounting records and the properly implementing e-accounting practices to firms. The questionnaires were personally administered by the researcher to 300 employees of firms. The questionnaires were distributed and left with respondents for a week to allow them enough time to respond in good faith. A total of 270 of the distributed questionnaires

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were returned and were accepted as complete for the purpose of data analysis. This gave a return rate of 90%. Participation in the survey was voluntary and the respondents were assured of confidentiality.

E. Data Analysis Technique

Data from the field were modified and implied appropriately to make meaning out of them. Editing was done to correct errors, check for non-responses, and accuracy of answers. Coding was done to facilitate data entering and comprehensive analysis. Demographic data, descriptive and reliability statistics, a correlation matrix, and regression analysis were used for the analysis. The software used was the IBM Statistical Package for Social Science (SPSS) version 25.

VII. DATA ANALYSIS AND DISCUSSION

As part of the study, demographic data, descriptive and reliability statistics, a correlation matrix, and regression analysis of the relationships between the dependent variable and the independent factors as well as between the independent variables themselves will be presented.

A. Demographic Information Profile

This section demonstrated and accordingly explains results on manufacturing enterprises demographic characteristics for e-accounting practices.

I. TABLE: GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	M	186	68.9	68.9	68.9
	F	84	31.1	31.1	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

Table 1 demonstrates that gender participation (68.9%) of the respondents are male and (31.10%) of the respondents are female manufacturing firms are practices e-accounting by male compared to female respondents. This finding is similar with the survey by which showed that male entrepreneurs were more likely to start a business compared to male respondents..

II. TABLE : AGE GROUP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-29	36	13.3	13.3	13.3
	30-39	80	29.6	29.6	43.0
	40-49	54	20.0	20.0	63.0
	50-59	65	24.1	24.1	87.0
	Above 60	35	13.0	13.0	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

The table 2 the Age group of the respondent shows that 21 up to 29, (13.3%), 30 up to 39, (29.6%), 40 up to 49, (20.0%), 50 up to 59, (24.1%), and Age above 60, (13.0%). This indicates that majority 30-39 age group stage of software users.

III. TABLE :CAREER LEVEL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DA	80	29.6	29.6	29.6
	DF	54	20.0	20.0	49.6
	DIA	69	25.6	25.6	75.2
	DA	36	13.3	13.3	88.5
	Others	31	11.5	11.5	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

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As evident from Table 3, the respondents were also established to specify their career level. The results showed that, 29.60 percent of the samples were Director Accounts (DA), 20.00 percent were Director Finance (DF), 25.60 percent were Director Internal Audit (DIA), 13.30 percent were Director Admin (DA), and 11.50 percent were others. To conclude, the greatest of participants in this career level had Director Internal Audit (DIA).

IV. TABLE : LEVEL OF SPECIALTY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Management information system	48	17.8	17.8	17.8
	Information Technology	51	18.9	18.9	36.7
	Accounting information system	71	26.3	26.3	63.0
	Administration science	43	15.9	15.9	78.9
	Basic technology	57	21.1	21.1	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

With reference table 4 to respondents' level of specialty background, most of the respondents (26.30%) had up to accounting information system (AIS). The second largest group of respondents (21.10%) had up to basic level of technology, 18.90% of them had information technology (IT) level specialty, 17.80% of them had management information system (MIS) level specialty and the remaining 15.90% of respondents had administration science (AS) level specialty.

V. TABLE : YEARS OF EXPERIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-4	41	15.2	15.2	15.2
	5-9	63	23.3	23.3	38.5
	10-14	76	28.1	28.1	66.7
	15-19	58	21.5	21.5	88.1
	20-Above	32	11.9	11.9	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

According to table 5, reveals the respondents were asked to specify their years of experience, and the results showed that 15.20 percent of the responses had less than 4 years, 23.30 percent had between 5 to 9 years, 28.10 percent had between 10 to 14 years, 21.50 percent had between 15 to 19 years, and 11.90 percent had more than 20 years job experience. This indicates that majority experience operated on (10-14).

Refer to Tables 1, 2, 3, 4, 5 and 6 which shows the respondents' demographic profile information there was significant level difference level of top managers are practices e-accounting systems.

B. Reliability And Descriptive Tests

Table 6 shows the summary of reliability analysis for the research variables. The reliability method is used to identify the correlation value between scores for each item. By conducting this procedure, the items with high correlation values with the test index score have high reliability whereas items with low correlation values have low reliability and will be discarded from the test. This process is known as the internal consistency approach (Chan, 2006). Based on the given table, the Cronbach alpha value score is between 8.00-9.00, which indicated the very good association as ruled by (Hair et al, 2016).

VI. TABLE: RELIABILITY AND DESCRIPTIVE TESTS

Variables	Cronbach's Alpha	Mean	Std. Deviation	N of Items	Strength of association
X1	.913	3.60	1.110	3	Excellence
X2	.842	3.64	1.086	2	Excellence
X3	.963	3.70	1.087	4	Excellence

Source: Author Field Data, 2022

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The result indicates good strength of association for the Cronbach's Alpha value for the 11 items as stated in Table 6. The strength of association result shows that the dependent variable is ranged as excellent and the independent variable is excellence. . In terms of descriptive statistics also shows that X_3 had the highest mean (3.70), followed by X_2 with a mean of (3.64), and X_1 with a mean of (3.60) but the values of standard deviation are poor in this regard that supports the perceptions of the respondent about the using of e-accounting practices in making manufacturing firms decisions are significant.

C. Correlations Matrix Tests

In order to detect a possible relationship between the different variables the following correlation matrix are:

VII TABLE: Correlations Matrix

	X_1	X_2	X_3
X_1	1.000		
X_2	.981	1.000	
X_3	.953	.953	1.000

Source: Author field data, 2022

Apart from validity assessment of the measurement model, we performed a check for multicollinearity among the variables. A correlations' matrix was used for determining the relationship among all the variables. As Table 7 displays, the highest correlation 0.981 existed between practical e- accounting practices items (X_1) and approach of record keeping document (X_2) and the lowest correlation 0.953 existed between approach of record keeping document (X_2) and factors affecting properly implementing e-accounting adoption (X_3). In total, these correlations indicate that multicollinearity.

D. Multiple Regressions Tests

Regression analyses were calculated by using enters method and the following results have been drawn:

VIII TABLE: MULTIPLE REGRESSIONS ANALYSIS

Variables	Beta	t	Sig.	Adjusted R^2	R^2	"F" value	F" sig	Results
X_2	.816	21.638	.000	.983	.967	3857.630	.000 ^b	Supported
X_3	.195	5.164	.000					Supported

a. Dependent Variable: X_1

Source: Author field data, 2022

Based on regression result presented in table 8, a unit increase in approached of record keeping document (X_2) increases e-accounting practice by .816 percent, showing that X_2 has a significant effect on e-accounting practice in the selected manufacturing firms under enlisted DSE also increases practice decision. The analyses indicate that e-accounting practice is significantly related to e-record keeping document at 0.000 percent. On the other hand, a unit increases in e-accounting practices in manufacturing firms by 0.195 percent, which signifies a positive significant relationship between e-accounting practices and factors affecting properly implementing e-accounting adoption (X_3) is a key determinant of e-accounting practice in Bangladesh manufacturing firms.

More so, results presented in table 8, with the coefficient of determination (R^2) of 0.967, Adjusted (R^2) at 0.966 indicates that independent variables incorporated into this model have been able to explain the differences in factors influencing adoption of E-accounting practice in selected sampled manufacturing in Bangladesh. This is further supported by and F-Value of 3857.630 and P-Value (0.000). The constant and coefficients are statistically significant. Due to this result, the null hypothesis is rejected while the alternative hypothesis is accepted indicating the fact that there is a significant difference in factors influencing e-accounting practices in manufacturing companies in Bangladesh.

VIII. CONCLUSION AND RECOMMENDATION

This paper examined the e-accounting practices of manufacturing firms drawing on a survey of 270 top level managers in manufacturing firms under enlisted DSE in Bangladesh. The results revealed that majority of firms in the Bangladesh are male top managers are maintained e-accounting practices having about 70 percent. The results also revealed that majority of companies keep proper e-accounting records pertaining to their business. However, minority of the firms kept records of their

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business using the electronic based system. This category of firms maintained e-files of invoices and receipts, journals, ledgers, vouchers, cash book, payroll records and assets register. Also, in most cases owner-managers are in charge of the book keeping and accounting functions for their business.

The results of the analysis revealed specific considered factors influencing electronic accounting practice in the selected sampled firms such as practical e-accounting practices items (X_1), approach of recordkeeping document (X_2) and factors affecting properly implementing e-accounting adoption (X_3). The results showed that there is a significant difference in the factor influencing the acceptance of e-accounting. These results are supported by earlier studies of Munasingbe (2015), Padachi (2012), Sekyereet al. (2017) shedding light on e-accounting adoption variables and at different levels of their influence on e-accounting practices. Findings revealed that electronic accounting practice positively influence the financial reporting quality of selected sampled firms in Bangladesh.

The study concluded that all the identified variables X_1 , X_2 and X_3 influenced e-accounting adoption and that e-accounting practice enhanced accounting procedure and improved the timeliness of report generation and financial reporting quality of sample firms. In view of the above finding the following recommendations were made:

- ▶ To level management of Bangladesh manufacturing firms are enjoined to put more effort by developing mechanism that strengthens e-accounting usage to promote users confidence on the financial information of firms.
- ▶ Teamwork among manufacturing firms should be maintained by information technology firms in order to make electronic accounting spread across and meet the quality of financial report needed by Stakeholders.
- ▶ Lastly, national regulators such as Bangladesh Securities Exchange Commission (BSEC) and Dhaka Stock Exchange Ltd (DSE) in collaboration with the Institute of Chartered Accountants Bangladesh (ICAB) should organize accounting training programmes for top level managers of manufacturing firms to provide them with basic e-accounting knowledge and skills.

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Appendix		
E-Accounting in the Selected Sampled firms of Bangladesh		
Part II - Questionnaire		
1.	Practical e-accounting practices items	Do you maintain a record of all the assets and liabilities of the companies that support your accounting software?
		Do you maintain all of your receipts and invoices for transactions in a well-organized software system?
		Does your business provide customers with a digital receipt?
		Does your business execute all transactions involving digital financial data?
2.	Approaches of Record Keeping document	The paper based system
		The computer based system
	Factors affecting properly implementing e-accounting adoption	How to prepare for financial reporting challenges facing on digital platforms in firms?
		Entrepreneurs' skepticism has a negative impact on maintaining electronic data.
		It increases the reliability, accuracy and mobility level of transaction and reporting.



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Juridic Analysis of the Provisions of Health Rights on Adapted Children in the Perspective of Civil Material Law (Burgerlijk Wetboek) in Indonesia



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ABSTRACT: The legal consequences of adopting a child are that the child legally acquires the good name of the adoptive father, becomes a child of the marriage of the adoptive parents, and becomes the heir of the adoptive parent. That is, as a result of the appointment, all civil relations that arise from birth, namely between biological parents and children are cut off. Children who are legally adopted through court decisions have the same position as biological children. Give rights to the parties to the inheritance of their parents. The Civil Code also states that all property of the deceased legally belongs to all his heirs, and no legal decisions are made by will alone.

KEYWORDS: adopted child, inheritance, adoption

INTRODUCTION

The State of Indonesia is a state of law, where the law should be applied properly and correctly in accordance with the applicable provisions. Included in the law that protects children. A child is someone who is not yet 18 years old and is included in the womb. The hope of parents in continuing their offspring is relying on children, inheriting property and various kinds of family interests and other factors. It is undeniable, children are the pride and support of the family who are expected to become successful people in the future so that they can maintain the honor of their family and parents. In terms of child protection and child care, it has been regulated in Law Number 23 of 2002, Law Number 35 of 2014. In addition, child protection provisions also apply to the civil inheritance system. In the law of adoption in the Netherlands, the provisions of Article 344 sub.f. Burgerlijk Wetboek stated that before adopting a child, the prospective adoptive parents must first become the guardian of the prospective adopted child. This provision can be seen as one of the efforts to protect the interests of prospective adopted children. From the example of arrangements in the United States and in the Netherlands, it appears that the government needs an active role in protecting the interests of children, especially prospective adopted children. The active role of the government is a natural thing and should be implemented in the Indonesian state, because the question of protecting the interests of children and the question of child welfare are related to social welfare which is one of the responsibilities of the state as explicitly recognized in Law Number 11 of 2009 concerning social welfare, especially on the provisions of Article 1 paragraph 1. (Rusli Pandika, 2012)

The interests of individuals regarding the adoption of children in the family through adoption institutions have become part of the family law system in Indonesia. The development of the situation and condition of the community affects the adoption system, where the adoption agency is an element of the law that develops in the community. Over time, there have been many submissions to the rules regarding the process of adopting children, which for the first time were only specifically for the community of Chinese descent groups which had been regulated by the Dutch East Indies government through Staatsblad number 129 of 1917. (Lili Rajidin, 2001). Articles 5 to 15 Staatsblad 1917 number 129 specifically discusses adoption or adoption in the Chinese community, which has since become a positive law (written) regarding adoption arrangements. If a person in the male line from the Chinese community who is married does not have a legal male lineage, either by birth or through adoption, then he and his wife or after the dissolution of the marriage by her, can adopt only a Chinese boy. who are not married and have children, have not been adopted by other parties, are at least 18 years younger than their husbands and 15 years younger than their wives or widows who will adopt them as children. If the adopted person is a blood relative, both legal and out of wedlock, then he must obtain the same inheritance rights from the family because he was appointed to the common ancestor of both parties.

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In terms of the degree of descent, the adoption process can be canceled by law if the process of adopting a daughter and adopting a child is carried out in a way other than through an authentic deed, because the provisions for this appointment actually come from a traditional Chinese belief, that the descendants of sons are believed to be the successors of the family. In the future and who can preserve the ashes of his parents' ancestors. Court decisions are a product of the legal process in child adoption. Legal certainty for parents and adopted children is provided through court decisions in orderly regulation of the legal practice of adopting children, where both in the religious courts for Muslims and the district courts this has developed regularly. Among the Indonesian people, the practice of adopting or adopting children is widely known, both through customary law by the natives, the provisions of Islamic law by Muslims, and through staatsblad number 129 of 197 by the Chinese. The parties involved in the practice of adopting children include the biological parents, the adopting parents, the child as the adopted party, as well as arrangements related to the legal provisions. The party who gives the adopted child is the biological parent, the adoptive parent is the party who adopts the child, and the adopted child is the party who will make the object to be an adopted child. Meanwhile, the governing law is the law that regulates the stages and terms of adoption that applies in a country where the child and his biological parents reside, and which becomes a habit for the local community or customary law.

Inheritance law is a set of statutory regulations that regulate the law of property arising from death, namely regarding the transfer of property left by the deceased and the consequences of the transfer to the people who obtain it, both in their relationship with third parties. Pitlo, (1979) Inheritance law is a set of rules that regulate the method or process of transferring assets from the heir to the heir. Not everyone gets the gift of offspring, even if they do various ways, the last way they take is usually adoption, which means raising a child that originally belonged to someone else to be his, in Arabic called Al-Tabanni. It was found that in practice there are two models of adoption of children, namely first, adopting a child that originally belonged to someone else to be cared for with care and love but without being given the rights of a biological child, only to be treated as his own child for his adoptive parents. The scholars agree that raising children in this way is not prohibited by religion, even if it is carried out with sincere intentions it can be a good thing. Second, adopting a child from someone else's child is then given rights like a biological child, so that the child has the name of the descendant and the lineage of his adoptive parents, can inherit the inheritance, and obtain other rights the same as his own biological child.

Inheritance rights of adopted children with the adoption of children, the status of adopted children will change where children who are not biological children themselves are physically and mentally considered as biological children, meaning that the child gets the same recognition as biological children. The inheritance system in BW Civil Law does not recognize the terms original property or gono-gini property or wealth that can be shared in marriage, because the inheritance of each person in BW civil law, is a single unit which is integrated and intact in its entirety and will pass from the hands of the other person. bequeath to the beneficiary or his heirs. This means that the unequal arrangement based on the type and origin of the inheritance from the heir is not known in the BW civil law. As written in Article 849 BW, the law regulates their inheritance without regard to the nature or origin of the items in the inheritance. The customary inheritance law system provides a distinction between the origin and types of goods left by the testator. If a person dies according to customary law by leaving a certain amount of property, then the first thing to do is determine inheritance, which includes the original inheritance brought by one of the parties when the couple married, but also gono-gini property which is property obtained by the other party. the couple together during their family life together. (Eman Suparman, 2018)

METODE PENELITIAN

This type of research is a normative juridical research, which describes the laws and regulations as a starting point for reviewing the subject matter and is associated with theories, principles, concepts and doctrines of legal science. This study uses a statutory approach, namely to examine the laws and regulations relating to the subject matter discussed in this study, and uses a conceptual approach so that there are similarities in thinking about several concepts in this study. While the case approach is used to determine the judge's considerations in applying the law. Then a systematic interpretation is carried out, so that the legal material has meaning, then it is analyzed to obtain answers to the main problems raised in the study.

RESULTS AND DISCUSSION

The position of inheritance rights between adopted children and biological children in the perspective of material civil law Burgerlijk Wetboek (BW)

Adoption of children can result in the inheritance status of adopted children to their adoptive parents. The inheritance of the adopted child returns to the inheritance law of the adoptive parents. According to legal values, adoptive parents are obliged

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to try not to abandon their adopted child after his death. So in general, in social life, adopted children get a share of the inheritance through a will to support life. (Soepomo, 1986) A will is a way for the owner of the property to express his final desire to distribute his inheritance to his heirs during his life, and it only takes effect after the testator dies. This last request is usually made when the heir is too sick and cannot recover, sometimes even before the heir takes his last breath. Say this last wish, usually in the presence of next of kin and gain the trust of the heirs. The final word about his hope is what in West Java is called *wekasan* or *welingan*, in Minangkabau society it is known as *umanat*, in Aceh it is known as *peuneusan* and in Tapanuli *ngeudeskan*. (Hilman Hadikusumo, 2003)

In big cities, it is often found that a notary makes a will in writing from a notary who is brought in to deliver a final speech in front of two witnesses. Therefore, a testamentary grant is in the form of a will that covers some or all of the heir's wealth, but without prejudice to the absolute rights of other heirs, and can be canceled. This is based on the decision of the Supreme Court Number 62/1962 pn. Tjn, dated October 13, 1962 and based on the decision of the Supreme Court, dated August 23, 1960 Number 225K/SIP/1960, said that a testamentary grant may not harm the heirs of the grantor. A will grant can be made by the testator himself or in a notarial deed, where a special notary is brought in to pay attention to the last words in the presence of two witnesses, in such a way that the will grant takes the form of a notarial deed and is called a will or testament. In the circumstances of the deed, it is possible for the Notary to give advice to the heirs so that the will do not deviate from the regulations that have been set which can make the deeds legally invalid. A will or also called a *tastamen* is a will statement made by a person about what will be done with his property after his death. He could give his wealth to whoever he wanted. Since this is something special and contrary to custom, such a gift must have proof of acceptance. So this gift is manifested in a message for his family. Through a will, a person who previously did not have the right to inherit certain inheritance rights can obtain it based on the information or authority, authorization, or testamentary power of the testator as long as he is still alive.

The granting of this will is recognized under the title of will as regulated in Book II Chapter XII according to the inheritance law of the Civil Code of BW. General requirements regarding wills, the ability of a person to make a will or to obtain the benefits of a will, form of will, inheritance of heirs, granting of wills, cancellation and termination of wills. This matter is emphasized in Article 875 BW which mentions the understanding of the letter of the will, namely: "A will or testament is a deed containing a statement of a person regarding things he wants can happen after he dies and can be revoked". The testament or will according to book II chapter XIII Article 875 of the Civil Code of BW contains the appointment of heirs (*erfstelling*), or will grants (*legaat*). *Erfstelling*, namely the determination of the testament, which aims that upon a specific appointment a person will receive all of his inheritance or part of his wealth by the person who leaves an inheritance from his wealth (Article 954 of the Civil Code). While *legaat* is a person who inherits with a will, appoints a person to receive the inheritance of a number of goods, such as a house or car or movable property belonging to the person who inherits, or to obtain inheritance. the result of all part of his inheritance (Article 957 of the Civil Code). In a will, it is possible for people who are not entitled to inherit or will not receive an inheritance to obtain it during their lifetime from the testimony or power of the testator, giving or giving a will. In society this can happen to wives and/or children who have low ancestry, it can also happen to adopted children and their own children.

Under Western law (BW Civil Code) there is a limit on the granting of wills, namely the size of the estate distributed to heirs known as "*Ligitime Portie*" or "*wettelijkerdeel*" (amount determined by law). This is determined in Article 913-929 of the Civil Code. The law was created to establish a legal portal to avoid and protect the children of the deceased from the tendency of the deceased to benefit others. *Ligitime Portie* (absolute part) is an inheritance or part of an inheritance that must be given to heirs in a straight line, on how to prohibit heirs from giving something in the form of gifts (grants) or wills (Article 913 of the Civil Code). Therefore, the absolute or guaranteed portion by *Ligitime Portie* is a straight line of heirs (often referred to as "*Pancers*"). Straight down, if the heir only leaves his only legal child, his absolute share is half of the inheritance. So that if there is no will, the only child gets all the inheritance, and if there is a will, the only child is guaranteed half of the inheritance. If there are 2 (two) children left, then the absolute share is 2/3 of each child. This means they guarantee that everyone will get 2/3 of their share if there is no will. If 3 (three) or more children are left, the absolute share of each is 3/4. This means that if there is no will then each will get a guarantee of 3/4 of the share. In a straight line (parents, grandfather, etc.), the absolute share is always half, which by law becomes each person's share in the inheritance after death. It should also be noted that children born out of wedlock (adopted children) who have been recognized are absolutely guaranteed, namely half of the share that must be obtained according to the law. A grant or testamentary grant can cover the entire estate if there are no blood relatives in the next row and no illegitimate children are accepted.

If the provisions of the absolute portion above are violated, the heirs guaranteed by the absolute portion can file a lawsuit in court to reduce the gift or will so as not to violate the law. especially the Civil Code. So the rule regarding the absolute part is

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basically limiting the freedom of people to make a will. According to Article 931 of the Civil Code of BW, that in making a will or testament grant, there are three ways: a. an open will; b. Will in handwriting (olographic testament); c. Closed testament (R.G. Kartasapoetra, 1994). Section 932, paragraph 2 of the Civil Code discusses the possibility of preventing an heir from signing the cover or deed of acceptance after the will has been written and signed. If this happens, the notary must record the circumstances and reasons for his absence. Article 933 of the Civil Code states that this olographic testament applies directly proportional to the validity of an open testament made before a notary, and is considered to be made on the day the notary receives the deed. So do not rule out the date written in the will itself. According to Article 934 of the Civil Code, the beneficiary can cancel the testament. Generally, this is carried out by means of a re-application that must be stated in an authentic deed (Notary deed). By re-accepting this olographic testament, the inheritance grant must be assumed as if it were withdrawn (herroepen), this is confirmed by paragraph 2 of Article 934 of the Civil Code. Meanwhile, Article 937 stipulates that if this olographic testament is given to a Notary through that method in a sealed envelope, the Notary has no right to open the seal. The seal can be opened after the beneficiary dies, by handing it over to the Balai Harta Peninggalan (weeskamer) to be opened and completed as through a secret testament (Article 942 of the Civil Code), namely by making an oral procedure at this opening and on condition that a will is found, then the will it must be submitted to a notary. An olographic testament can be submitted to a Notary openly, so it is not confidential. In this way, the deed of acceptance to be kept (deed of van bewaareving) by the Notary is written in his own testament under the writing of the heir which contains the last hope. Then the deed is signed by the Notary, the witnesses and the beneficiary.

A will (openbaar) according to article 938 of the Civil Code stipulates that a will (openbaar) must be submitted before a notary through two witnesses. Furthermore, the person who left the inheritance has fully expressed his hopes to the notary (zakelijk), so the notary must record these statements in clear sentences. There is disagreement about whether information about those who leave bequests should be in writing or through direct practice (gebaren) (Oemarsalim, 1991). Usually the person who leaves the inheritance has a cold so he can't read, then the person concerned makes notes on paper. If the person who leaves the lineage after listening to this reading nods, then this verbal statement will suffice. Article 939 paragraph 2 of the Civil Code explains that if the heir submits his will to a notary, there is a possibility that the witness is not present and the notary will write it down on his behalf. A brief statement of desire before a witness. Then according to paragraph 3 of Article 939 of the Civil Code, the notary's words can only be read out and announced to the heirs, is the word read out really his last will? This announcement and reading as well as questions and answers must be made even though the statement of the heir has previously been stated before the witness. Then the Notary deed is signed by the Notary, the heirs and witnesses. If the beneficiary cannot sign or is unable to attend, the notary must explain in detail. In addition, it must also be explained that in the Notary deed all of the required provisions have been carried out.

Those who are not allowed to be witnesses are as described in Article 944 Paragraph 4 of the Civil Code concerning the making of an open testament, namely: a. Up to the fourth degree of the heirs or persons who receive the will or their relatives; b. Children, grandchildren, and children-in-law or grandchildren-in-law of a Notary; Assistant Notaries concerned. The secret treaty (geheim) stipulates that the heir must write it himself, or someone else can write his final wish. Then, the heirs must sign the writing. After that the writing can be put in a closed envelope, sealed and then given to a Notary (Article 940 and Article 941 of the Civil Code). This closing and sealing can be done before a Notary and four witnesses. In addition, the heir must make a statement before a notary and witnesses that the contents of the cover are his will and that it is written and signed by him, or written by another person and signed by him. The Notary then makes a superscriptie deed as a form of approval for the information. The deed can be written on a letter containing a statement or on a cover. Notaries, heirs and witnesses are required to sign the deed so that it has permanent legal force. The last paragraph of Article 940 of the Civil Code stipulates that the will must be submitted by a notary together with other notarized original documents. Article 941 of the Civil Code describes a situation where the heir cannot speak (mute) but can write. For this, the will must still be written, dated and signed by the beneficiary. Then it is given to the Notary, and above the superscriptie deed which states that the writing given is his will. If the testator dies, then the person who has the obligation to convey it to those concerned is a Notary, this is guided by Article 943 of the Civil Code. What is meant by the notification is related to the testaments. Then guided by Article 935 of the Civil Code, namely the heir is allowed to write his last hope in a letter under the hand, meaning that there should be no interference from a Notary, in this case only recognizes the appointment of people who have the obligation to carry out a testament (executeur testamentair), related to orders. concerning burials as well as the donation of clothes, jewelry and household utensils.

According to Article 913 of the Civil Code, the absolute share or *Ligitieme portie* guarantees straight-line heirs, namely children and their descendants and parents and ancestors and above. Adopted children can inherit from their adopting parents, but in essence it does not harm other existing heirs. Orally adopted children, cannot receive inheritance from the adopter, but can

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obtain a power of attorney (absolute part) that does not deviate from *Ligitieme portie*. Adopted children who are adopted through the District Court can receive inheritance from their adoptive parents with conditions depending on the region, because each region is different in giving inheritance to adopted children. This is emphasized through the opinion of the Notary, which states that adoption of children for Indonesian citizens of Chinese descent still uses *Staatsblad 1917 Number 129*. Because they are still using *Staatsblad 1917 Number 129*, the adopted child has the right to receive inheritance from the adopting parents. Because after being appointed, he has become the biological child of his adoptive parents. In accordance with the adoption law by court order. The status of adopted children is similar to that of biological children. The legal impact on the distribution of inheritance applies similarly to biological children as stated in Article 852 of the Civil Code. According to Article 830 of the Civil Code: "inheritance only takes place because of death". So that the inheritance or inheritance is only opened when the heir has died and the heirs are still alive when the inheritance is open.

Menurut undang-undang ada dua cara untuk memperoleh warisan yaitu:

- a. Dengan *abintestato* (ahli waris menurut hukum) menurut Pasal 832 KUHPerdata BW. Menurut undang-undang, orang yang berhak mewarisi harta warisan adalah kerabat sedarah, baik yang sah maupun yang tidak sah, dan suami atau istri yang paling lama hidup.
- b. Melalui surat wasiat (para ahli waris sebagaimana namanya disebutkan dalam surat wasiat), Pasal 899 KUHPerdata. Dalam hal ini, pemilik harta membuat wasiat dan para ahli waris disebutkan dalam wasiat atau testamen. (Efendi Perangin, 1997)

Constitutional Court Decision No. 46/PUU-VII/2010 related to the provision of children outside of marriage in terms of inheritance, the Constitutional Court (MK) assembly declared Article 43 Paragraph 1 of Law Number 1 of 1974 concerning marriage (Marriage Law) conditionally unconstitutional. In its ruling, the Court stated that Article 43 Paragraph 1 of the Marriage Law contradicts the 1945 Constitution as long as it is interpreted to eliminate relations with men who can be proven through science and technology and or other evidence that they are related by blood as their father. Based on the Constitutional Court's decision, major changes to the civil law system cannot be avoided. In inheritance law, based on the Civil Code, illegitimate children who receive inheritance are illegitimate children who have been recognized and ratified. Since the Constitutional Court's decision, children out of wedlock are recognized as legitimate children and have an inheritance relationship with their biological father. Thus there are several risks that will arise, one of which is related to the land that is the object of inheritance. Usually, inheritance land is used as collateral in bank transactions by the heirs. The existence of the Constitutional Court's decision resulted in claims of children out of wedlock against these guarantees could arise. Apart from that, it is undeniable that there will be many lawsuits to the religious (Islamic) courts and district courts (non-Islamic) from illegitimate children.

The Position of Inheritance of Adopted Children From Adoptive Parents Who Have Divorced

Basically, inheritance is the transfer of all rights and obligations of the deceased (heirs) to their heirs. Therefore, it can give rise to legal problems arising from the succession process prescribed by law (*ab Intestate* or *Intestate Sucession*) or through will succession. Walmart believes that inheritance means replacing heirs with heirs in relation to property law. Inheritance only occurs in the relationship of heirs in the realm of property law. Personal or family legal function of the beneficiary (Ridwan Khairandy, 1999)

Broadly speaking, there are 2 (two) groups of people who deserve to be called heirs, namely those who by law or by law that person has been designated as heirs, who are also called heirs *ab intestato* and those who become heirs because of a will/testament. or also known as *testamentair*. Inheritance according to the law is a form of inheritance in which blood relations are the determinants of the inheritance relationship between the heir and the deceased. (Surini Ahlan and Nurul Elmiyati, 2012)

In addition to blood relations, marital relations are also the dominant factor of inheritance according to law. In general, there are two categories of people who deserve to be called heirs. The first group is those who are legally recognized as heirs, and the second group is those who become heirs due to certain legal actions carried out by the heirs during their lifetime, such as acknowledgment of legal actions of children, legal acts of child adoption, or legal acts of adoption. adoption, and other claims Legal action on a will or will. Article 833 paragraph (1) of the BW Civil Code states that all heirs automatically by law obtain ownership rights over all assets of the deceased (heirs). Article 874 of the Civil Code also states that all property of the deceased legally belongs to all his heirs, and no legal decisions are made by wills alone. *Staatsblad 129:1917* states that the legal consequences of adopting a child are that the child legally acquires the good name of the adoptive father, becomes the child of the marriage of the adoptive parents, and becomes the heir of the adoptive parent. That is, as a result of the appointment, all civil relations that arise from birth, namely between biological parents and children are cut off. Children who are legally adopted through court decisions have the same position as biological children. Give rights to the parties to the inheritance of their parents. The Civil Code of BW stipulates that an heir can inherit the property of several heirs, one of which is because he inherits according

Juridic Analysis of the Provisions of Health Rights on Adapted Children in the Perspective of Civil Material Law (Burgerlijk Wetboek) in Indonesia

to the provisions of the law (ab intestato). According to Surini Ahlan Sjarif and Nurul Elmiyati, inheritance according to law is a form of inheritance where kinship determines the inheritance relationship between the heir and heirs.

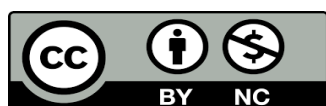
Although kinship is a determining factor, this is not absolutely true, because Staatsblad 129:1917 stipulates that adopted children have the same status as children who have blood relations with adoptive parents. By treating an adopted child as a child of a legal marriage, all civil rights owned by the biological child are also attached to the adopted child, including matters relating to inheritance. Even if the marriage of both parents ends due to divorce, the civil relationship between biological parents and biological children does not end. So the child becomes the heir to every divorced parent. The above provisions also apply to adopted children. The analogy given by Staatsblad 129:1917 is that, like biological children, adopted children also have inheritance rights from both adoptive parents. This situation continues because the relationship of child adoption is stated in Article 15 Staatsblad 129: 1917 that child adoption cannot be abolished by mutual agreement. As long as the formal aspects specified in Staatsblad 129:1917 are fulfilled, the adoption is binding forever. According to this provision, in the event of a divorce from the adoptive parents, the civil relationship between the adopted child and the parents, including inheritance rights, remains. In the event of the death of the father or mother, the adopted child becomes the respective heir of the father or mother.

CONCLUSION

Based on the results of the discussion, it can be concluded that the process of adopting an adopted child can be made by submitting an application to the District Court of the area where the child was adopted to obtain legal certainty regarding the adoption of the child in accordance with the provisions of the applicable law. The right to inherit an adopted child is not regulated in the Civil Code, so specifically for Indonesian citizens, the position of the inheritance rights of an adopted child is the same as that of a legitimate child. Therefore, he has the right to inherit the inheritance of his adoptive parents according to the provisions of the law or inherit according to the inheritance law of Testamentair if he obtains a testament. The provisions of the Staatsblad 129:1917 which stipulates that an adopted child has a civil relationship with his adoptive parents as well as the relationship between his biological parents and his biological child, so that even though both adopting parents are divorced, they do not break the civil relationship with their adopted child who has been adopted. Fixed adopted child. has the right of inheritance from the father and from the mother who has adopted him as a child born from a legal marriage in the event of the death of the father or from the mother, the adopted child becomes the heir of each of the father or mother.

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Professionalization of the Ivorian Press in the Face of the Socio-Educational and Demographic Profile of the Journalist: The Case of the Daily Newspapers Notre Voie, Soir Info, Le Patriote and Fraternité Matin



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ABSTRACT: Generally perceived as the main culprit for the flaws of a declining media system, the Ivorian journalist has rarely been the subject of a socio-educational and demographic study that allows a better understanding of his behavior in the global media ecosystem, faced with the requirements of professionalization. This article attempts, on the basis of a systemic approach, to fill this gap by showing how the socio-educational and demographic profile of the journalist has an impact on the professionalization of the sector, through the case study of four Ivorian dailies: Fraternité Matin, Le Patriote, Notre Voie and Soir Info.

KEYWORDS: Ivorian journalists, socio-educational and demographic profile, media system, professionalization

1. INTRODUCTION

Journalism operates as a system within which act and interact several actors and factors whose role is more or less important. From the source to the customers-consumers (readers, listeners, television viewers, Internet users, etc.) of the information, passing through other actors (journalist, printer, advertiser, etc.), the involvement of everyone seems decisive in the functioning and viability of the global media ecosystem.

Journalism can be defined as a system of relations in the sense that a set of rules preside over the relationship that the journalist maintains with his environment and make probable, therefore foreseeable, a limited number of behaviors on the part of journalists and other actors engaged in relations with him (...). The system of relations characterizes not only the relations between the actors (journalists, sources, readers), but also the relations between the texts and the discourses. (Charon & De Bonville : 2002).

Thus, the difficulties of some or the shortcomings of others can be sources of dysfunction and negatively affect the productivity of the entire media system. The fact remains, however, that of all these links, the journalist seems to be the one whose role remains preponderant. Considered one of the key players in the media chain, he is at the heart of the system. Therefore, the quality of the information produced will largely depend on his abilities and his state of mind, in accordance with the rules of journalistic writing, in respect of the principles of ethics and professional conduct which govern the profession of journalism. In other words, if the journalist does not have the basic training and skills required, does not exercise his profession in adequate and satisfactory working conditions, is not fulfilled and has no career prospects, it will be less inclined to unleash its full potential to provide excellent performance and the information it produces would be of poor quality.

It is this postulate that guides this article in which we study the socio-educational and demographic profile of Ivorian journalists wrongly or rightly taxed for lack of professionalism¹, in a media system considered moribund where the press is in constant

¹ Several reports from the Observatory for Press Freedom, Ethics and Deontology (OLPED), the National Press Authority (ANP) and the High Authority for Audiovisual Communication (HACA) highlight the recurrent violations of the rules of ethics and deontology by journalists. By way of example, in August 2021 and July 2022, the new digital terrestrial television channels NCI and Life TV were arrested by the HACA for broadcasting indecent content, respectively for apology for rape and "attack on the fundamental values of the Republic and the family, on good morals". Consequently, the HACA invited these media to be more professional and responsible in the programming of their broadcasts. At the level of the press, the National Press Authority issued

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decline with a strong decrease regular sales figures for at least ten years. The press will have lost, between 2011 and 2017, 52% of its value and only 22% between 2016 and 2017. The turnover of the press of more than 6 billion FCFA in 2011 rose to 3 billion FCFA in 2017 (Dolumbia, 2018).

Similarly, many studies show the lack of independence of Ivorian journalists accused of fueling conflicts or bias.

3/4 of the journalists, both vassalized and "mercenary", appropriate the speeches of the "politicians-employers" that they reconstruct in a precise caliber to reach the indicated target. The public space is thus transformed into an immense territory of skilfully distilled information which functions like a veritable advertising agency, with its rituals and its stereotyped slogans, its grounds for maneuvers and confrontations, its artificial theatricality (...). It is a paradox to suggest that the plurality of the press fuels the current Ivorian crises. It adds to individual anxiety (in the face of changes in society) a profound collective uncertainty (Blé, 2006).

To portray the lack of professionalism and independence of some Ivorian journalists, Thérout-Bénoni and Bahi (2008) find that more than a reflection of the social, actors and media institutions follow a logic that is part of specific processes, dynamics and issues. Thus the actors of the political field and the journalistic field consider journalistic communication as a strategy of domination. They therefore build the action within a logic of confrontation in which the media are considered as weapons and information as ammunition distributed by their networks. Why then should we expect that the media which, since at least the return to multiparty politics, have played the game of power by enrolling in logics of symbolic violence (Bourdieu, 1997), (...) will suddenly change these practices to become "peace media"?, in other words to exercise their profession with professionalism.

We start from the hypothesis that the numerous shortcomings noted against certain Ivorian journalists, accused of not practicing their profession according to the rules of the art, are partly due to the fact that they are not well trained, do not receive a substantial salary and are not provided with good working conditions by their employers. To verify this hypothesis, we study the case of journalists from the dailies *Notre Voie*, *Soir Info*, *Le Patriote* and *Fraternité Matin*, respectively news outlets close to the Ivorian opposition, independent and close to the ruling party. On the basis of this postulate, we seek to know the socio-educational and demographic profile of the journalists of these different news organizations by asking ourselves the following specific questions :

- What types of training have the journalists of these daily newspapers benefited from ?
- What are their living and working conditions ?
- What is the age, gender and place of residence of each of these media women and men ?
- Do they all benefit from a substantial and regular salary accompanied by an incentive career profile ?

2. THEORETICAL AND METHODOLOGICAL APPROACH

The two main theories that support our argumentative approach are based on the theory of systems and that of the sociology of the journalist defended by Gilles Bastin (2011) and Roger Dickinson (2007). Bastin and Dickinson place the journalist at the center of the information production ecosystem and find that "the work of sociologists attached to grasping particular contexts of journalistic work more than professional or organizational rules applicable everywhere shows all the interest there is in considering the dimension of interaction of the activity of journalists and asking the question of the role of individuals, through their daily activity, in redefining the profession (rather than that of the profession or the employing organizations in defining the activity of individuals" (Bastin, conference, 2011).

For Dickinson (2007: 190) "errors and shortcomings are a reminder that journalists are social actors whose behavior does not always conform to professional codes, normative frameworks, organizational constraints and pressures on sources that sociologists media have identified as powerfully determining. They also draw our attention to one of the fundamental problems of sociology: how social control is defined and maintained in specific social contexts. In short, the status and the socio-educational and demographic characteristics of the journalist (individual) can have an impact on his behavior (production) in the media ecosystem (group).

About system, it should be noted that several authors give more or less complementary definitions. Bertalanffy (1991) defines it "as a complex of interacting elements". For Rosnay (1975), "a system is a set of elements in dynamic interaction, organized

29 warnings and six arrests in respect of editorial staff, for the month of October 2021 alone. Three journalists were also the subject of warnings and 11 others of interpellation. All these facts highlight the lack of professionalism of some Ivorian journalists.

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according to a goal". Morin (1977) considers the system as "an organized global unit of interrelations between elements, actions or individuals". Walliser (1977) defines the system as "a relatively individualizable entity, which detaches itself from its context or its environment while carrying out exchanges with its environment". Le Gallou (1993) considers the system as "a set, forming a coherent and autonomous unit, of real or conceptual objects (material elements, individuals, actions, etc.) organized according to a goal (or a set of goals, objectives, purposes, projects, etc.) by means of a set of relationships (mutual interrelationships, dynamic interactions, etc.), all immersed in an environment".

A constant emerges from these different definitions of the system : the recurrence of the notion of relationship/interdependence between the unit and the whole ; the interdependence of the parts in relation to the whole (Grawitz, 2001).

The journalist, a link in the media system, has very often been perceived as a producer of information and less apprehended as an economic agent, an employee who, beyond satisfying the expectations of the public-consumer of information, remains a social being who must satisfy their needs, from the most basic (health care, food, housing, clothing) to the most elaborate (leisure, travel, marriage, etc.). Thus, the journalist, a key player in the media system and the information production chain, cannot be taken as a negligible portion if we want to understand in depth the issues and problems related to the development of the media. Their living and working conditions as well as their training, in short their origin and socio-educational and demographic profile are factors to be taken into account to understand the content of their production and the dynamics of their profession.

From a methodological point of view, we favored the qualitative approach over the quantitative; the aim being to describe the subject rather than to measure it: it was a question of collecting the impressions, opinions and points of view of thirty (30) journalists from the editorial staff of Notre Voie, Soir Info, Fraternité Matin and Le Patriote on their socio-educational and demographic situations. To achieve this, we mobilized the techniques of documentary research and semi-structured interview. Among the various possible forms of collecting oral information, the sociologist attaches particular importance to the semi-structured interview, also called centered interview (Combessie, 2007) or "qualitative, in-depth interview". It is based on fairly generally formulated and open questions. It offers the possibility of asking new questions if the interviewee raises an aspect that is still unknown. Unlike the questionnaire, the research interview establishes a special relationship between the researcher and the interviewee. It is used to verify hypotheses and to bring out new ones.

3. RESULTS

3.1. A lack of continuous training

If research reveals that all individuals have a level of higher education (BAC + 2 minimum), a prerequisite for better socio-professional integration, they do not all benefit from the continuing education necessary to update their knowledge and to their familiarization with the contemporary challenges of their profession.

Table 1 : The number of journalists receiving continuous training (Soir Info, Fraternité Matin, Le Patriote, Notre Voie)

Media	Continuous training		Total
	Yes	No	
Soir Info	1	4	5
Fraternité Matin	3	7	10
Le Patriote	4	2	6
Notre Voie	3	6	9
Effective	11	19	30
Rate %	37	63	100

Source : Our study

As the table below shows, out of 30 journalists surveyed, 63% did not benefit from continuous training. A fairly high rate likely to have a negative impact on the qualifications and ability of the journalists interviewed to practice their profession in a professional manner as well as on the overall performance of their various companies. Incidentally, this is what Ouattara (2009) seems to assert in a study devoted to continuing education in Côte d'Ivoire.

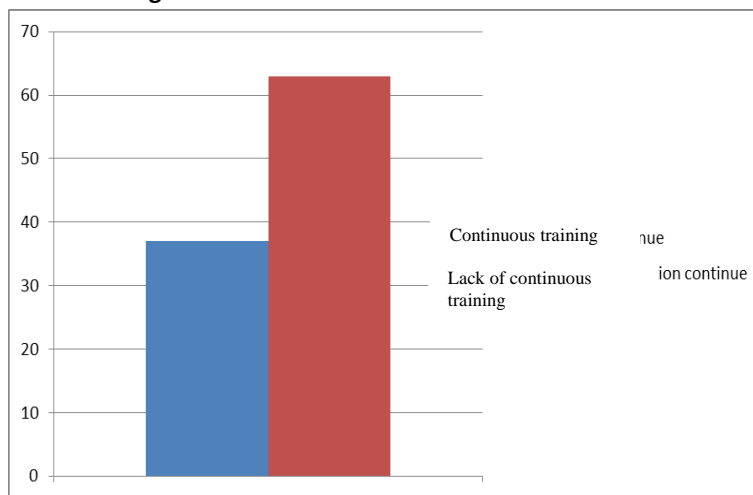
Companies in the chemical industry, agri-food, trade and the transport and communications sector allocate larger budgets to skills development. This translates into a preponderance of the profitability of continuing education in these

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sectors. The estimation of panel data by the fixed effects and by the dynamic panel method of Arellano and Bond, highlights the positive effect of continuous training on the added value with a greater effect of the investments of the previous year. . We therefore support the need to take into account the effects on the medium term in the evaluation of the return on training and to promote any policy which aims to encourage companies to invest in the reinforcement of human capacities.

With the histogram below, we become more aware of the extent of the lack of continuous training in the newsrooms concerned and its potential impact on the skills of journalists.

Figure 1: Histogram on continuous training within the editorial staff

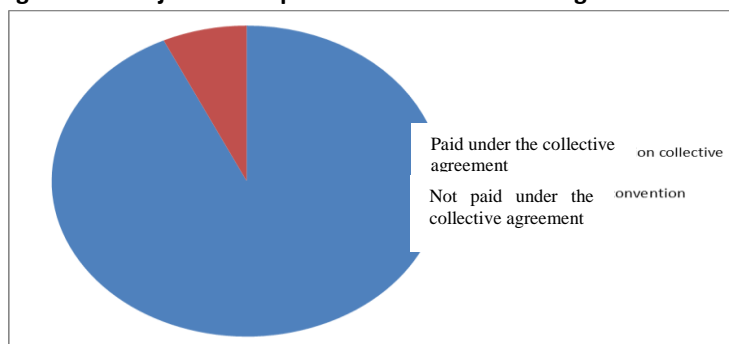


Source : Our study

3.2. Insufficient wages and unsatisfactory working conditions

Moreover, while the majority (93%) of journalists say they are paid under the inter-professional collective agreement, and find their salaries regular (87%), more than half (57%) nevertheless consider them insufficient to live on decently.

Figure 2 : Pie chart representing the rate of journalists paid under the collective agreement



Source : Our study

Table 2 : Decent life with current salary

Media	Decent life with current salary		Total
	Yes	No	
Soir Info	3	2	5
Fraternité Matin	5	5	10
Le Patriote	4	2	6
Notre Voie	1	8	9
Effective	13	17	30
Rate %	43	57	100

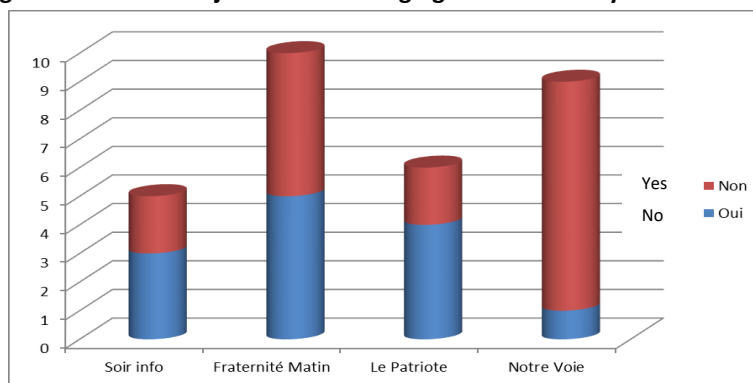
Source : Our study

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At this level, it is clear that there are disparities from one drafting to another. At *Soir Info*, 2 out of 3 journalists say they do not live decently on their salary, while they are 5 against 5 at *Fraternité Matin*. *Le Patriote* has a rate of 50 out of 50 of journalists who claim to live decently on their paychecks. The most alarming picture is that presented by *Notre Voie* with 8 out of 9 journalists (88.88%) who claimed not to live decently on their salaries. This malaise has often shifted to the field of claims marked by work stoppages observed by workers in this sector or suspensions of the publication of titles, as illustrated by the following article from *Alerte Info*.

Agents of "Notre Voie", a daily close to Gbagbo's party, on strike to demand "five months of salary arrears" The staff of the Ivorian daily "Notre Voie", a newspaper close to the party of ex-president Laurent Gbagbo, began a three-day strike on Wednesday to demand "five months of salary arrears", according to employees. "We are claiming five months of salary arrears" and even "more" for certain agents whose "holidays have not been paid", an employee told *Alerte Info*. The monthly payroll being of the order of 15 million FCFA, the management should free up more than 75 million FCFA to satisfy the staff estimated at around sixty people, including around forty journalists, according to an internal source. "If the payments are not made, the newspaper will not appear until Friday", launched an employee reached by telephone. When questioned, the director of publication, Mr. Bamba said that he "knows nothing about it". Several Ivorian newspapers have experienced financial difficulties since the advent of the online press (*Alerte Info*, 2016).

Figure 3 : Comparative histogram of the rate of journalists managing to live decently or not with their salary level



Source : Our study

The relatively modest standard of living of journalists is corroborated, among other things, by the means of transport they use to get to work. Nineteen (63%) out of 30 travel to their various newsrooms using public transport compared to 11 (27%) who have a personal vehicle. If we start from the hypothesis that a high level of salary contributes to the improvement of the living conditions of the worker by providing him with amenities (vehicle, decent housing, leisure, etc.), we can affirm that most of the journalists interviewed do not have a comfortable standard of living.

Table 3: Means of transport used by journalists

Media	Means of transport		Total
	Public transportation	Personal vehicle	
Soir Info	2	3	5
Fraternité Matin	5	5	10
Le Patriote	4	2	6
Notre Voie	8	1	9
Effective	19	11	30
Rate %	63	37	100

Source : Our study

While 100% of journalists (see Table 4) claim to have been declared to the Caisse Nationale de Prévoyance Sociale (CNPS), the employers of almost half (43%) of them do not regularly pay their contributions to the service provider. social ; which jeopardizes their support in case of need.

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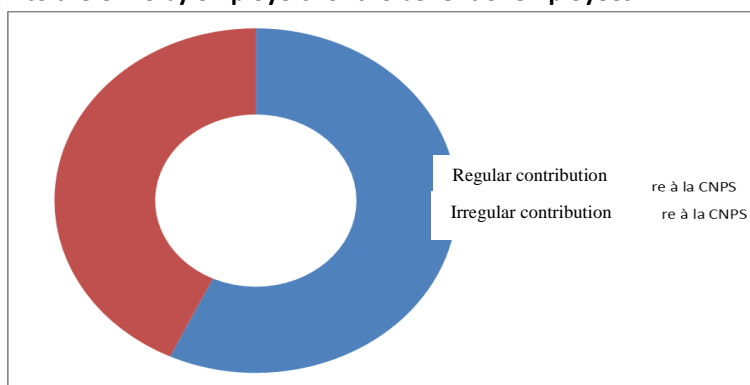
Table 4 : Journalists declared or not to the CNPS and those whose employer regularly or does not contribute to the CNPS

Media	Declared to the CNPS		Total	Employer contribution		Total
	Yes	No		Yes	No	
Soir Info	5	0	5	5	0	5
Fraternité Matin	10	0	10	6	4	10
Le Patriote	6	0	6	4	2	6
Notre Voie	9	0	9	2	7	9
Effective	30	0	30	17	13	30
Rate %	100	0	100	57	43	100

Source : Our study

The graph below shows the extent of default by the employers of many journalists at the CNPS.

Figure 4 : Rate of contribution to the CNPS by employers for the benefit of employees



Source : Our study

Nevertheless, the majority (93%) of the media professionals interviewed claim to benefit from health insurance or a social program within their companies.

Table 5 : Journalists with or without health insurance or a social programme within the four media

Media	Health insurance or social program within the company		Total
	Yes	No	
Soir Info	5	0	5
Fraternité Matin	10	0	10
Le Patriote	5	1	6
Notre Voie	8	1	9
Effective	28	2	30
Rate %	93	7	100

Source : Our study

3.3. Uncertain and unreassuring career prospects

The opinion of journalists on career prospects is tinged with pessimism. If the opinions are divided in the medium term, 14 (47%) against 16 (53%) expecting to remain in the profession within 5 years, the trend is completely reversed when they are asked if they wish to end their career in the journalism. No answer 23 (77%) against 7 (23%). These figures show that this job does not seem attractive and rewarding enough to keep workers there until the end of their career. The reality even varies from one press company to another. Apart from *Fraternité Matin*, where 80% of journalists (see table 6 below) intend to remain in the profession within 5 years, opinions are totally divided in the other newspapers : *Soir Info* has 1 employee (20%) for and 4 (80%) against, *Le Patriote* 2 (33.33%) for and 6 (66.67%) against, same with *Notre Voie* with 3 journalists (33.33%) for and 6 (66.67%) versus.

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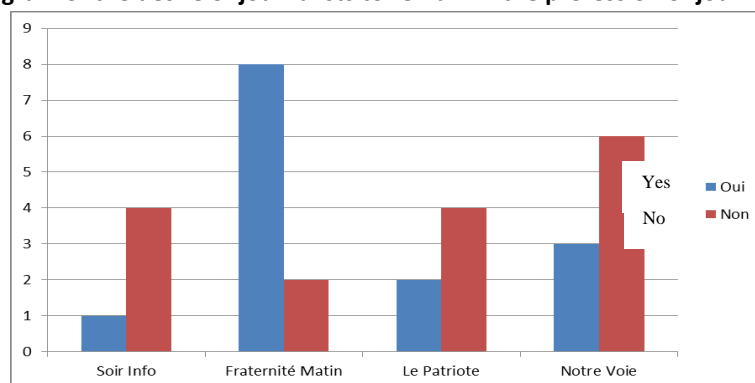
Table 6 : Prospects for working as a journalist in 5 years

Media	Do you plan to work as a journalist in 5 years?		Total
	Yes	No	
Soir Info	1	4	5
Fraternité Matin	8	2	10
Le Patriote	2	4	6
Notre Voie	3	6	9
Effective	14	16	30
Rate %	47	53	100

Source : Our study

The histogram below shows the disparities on the issue, from one news organization to another.

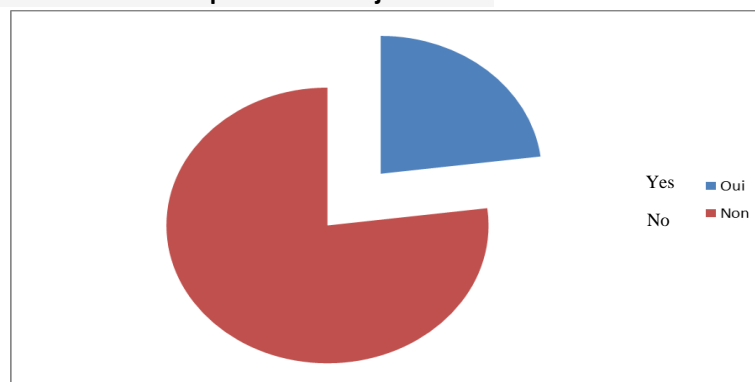
Figure 5 : Comparative histogram of the desire of journalists to remain in the profession of journalism in 5 years



Source : Our study

Graph 6 below, which presents the circular diagram on the end of careers of journalists, shows the high rate of disaffection with this profession.

Figure 6 : Pie chart of journalists' desire to complete career in journalism



Source : Our study

These various figures and illustrations reflect the image of a profession that does not reassure and does not offer sufficient guarantees and security to its workers.

3.4. Discussion

A general phenomenon revealing a sector of activity in danger and the inseparable link between the training, socio-educational and demographic conditions of journalists and their professionalism

If the level of education (BAC + 2 minimum) of most Ivorian journalists entering the profession today seems sufficient, their lack of continuous training as well as the precariousness of their salary and working conditions nevertheless constitute factors of underperformance and limiting their professionalism. But on observation, this phenomenon is more and more general

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(throughout the world) and reveals a profession in danger. To this end, several authors have attempted to show in their writings the link between the socio-educational and demographic profile of journalists and the quality of their production.

Govain (2015) therefore estimates that for the case of Haiti :

The question of the training (initial and continuous) of the journalist must be the first concern of the owners of the press for a better journalistic practice and of the press in Haiti. It is in particular from this moment that the media will be able to deal in a professional manner with the correct collection, sorting, processing, encoding or formatting and dissemination of information from institutions in a crisis situation. It is thanks to the quality of the training of journalists that they will manage to behave well in the face of the crisis and the dictatorial impulses which are often the sources of crises in certain developing countries. We often complain about the quality of the work provided by Haitian journalists and this is the result of several factors, first and foremost the quality of the training offered to them. Other elements also come into play: lack of technical or even technological infrastructure in the media, low remuneration of journalists, lack of search for excellence as a horizon of achievement, etc.

In a similar study conducted by Merah (2016) on online journalists in Algeria, "respondents often express their dissatisfaction with web-journalists in terms of resources and professional practices. They recognize that their knowledge and know-how remain insufficient to take advantage of all the possibilities offered by digital technology". Bahi (2008) notes in a publication on the integration of young people graduates in the Ivorian journalistic field the rise of proletarianization and precariousness due to the growing number of freelancers and fixed-term contracts, which we can think will have "impacts on their professional practices and ultimately on the production of information" (Balbastre 2007: 489 quoted by Aghi, 2008 : 206).

In France, freelancers can be grouped into two categories according to significantly different working conditions: freelancers attached to an editorial office by fixed-term contracts, who are mainly employed by the daily news media (national or regional daily written press , mid-day or evening news from national or regional television, national or local radio news); and freelancers, who most of the time collaborate independently with the magazine press, whether written or audiovisual. Depending on the category of freelancers considered, the impact on the very production of information is different (Balbastre, 2007). Other studies such as the one conducted on the training of French journalists show the impact of working conditions and career profile on the propensity of journalists to exercise their profession professionally.

All of the assets accumulated during the training period (general studies, professional studies, field experience) should constitute a framework conducive to relatively easy entry into the job market before even considering the development of the career itself. -same. However, the precariousness of the status offered at entry, the reality of a hiring job market far removed from a largely imaginary mythical journalism, unattractive salaries create the conditions for a very strong gap between the expectations of these young journalists who are already highly trained and the reality not of the field, but of employment and therefore of the career hopes that they can support (Leteinturier, 2010).

Furthermore, Wittmann (2006: 185) asserts that the third weakness of the Senegalese print media, insufficient professionalism, is partially linked to this financial instability: economic fragility makes it impossible to set up a solid logistical infrastructure (equipment recording, computers, vehicles, etc.) and is also responsible for the very low level of journalists.

Yacine Diouf (2005) is more explicit about the situation of the Senegalese journalist: "Taking on a social standing with others that he does not have, badly paid, the journalist finds himself in a delicate situation which makes him a zigzagging, faced with an economic and social situation full of lack and which exposes him to all temptations".

In fact, the precarious condition of the journalist, mainly that of the press, is only the tree that hides the forest of difficulties that crosses a disaster area. Around the worldwide, the press is in decline, faced with the emergence and rise of the Internet, which has led to a profound upheaval in the mode of production and consumption of information. After the music sector, the press is one of those which have been most directly confronted with the transformations linked to information technologies. The destruction of value, the proliferation of economic players, the appearance of new forms of competition linked to information sites and the emergence of new forms of reading are all major developments that have led to a rebalancing of the sector (Benghozi , P., Gié, B., Michaux, V. & Schneidermann, D., 2015).

If, at the beginning of the 1950s, eight French people out of ten regularly read a daily newspaper, there were only four at the beginning of the 1990s, after a phenomenon of slow erosion and a period of renewal of the means of information (...). In fact, the circulation of daily newspapers, which had peaked at 15 million copies in 1946, is steadily decreasing (...) and crumbles to 9.7 million in 1990 (Delporte, Blandin, Robinet, 2016).

In the United States, according to a study by the Annenberg School of the University of South California, in five years, most American newspapers in paper version will have disappeared. The vision is undoubtedly a little alarmist, but it indicates a trend

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that seems irreversible. Newspapers (paper) are "the industry that is shrinking the most in the United States" in terms of lost jobs (Bussard, 2012).

In Côte d'Ivoire, the picture is no better with the fall of half of the turnover of the press between 2011 and 2017, falling from more than 6 billion FCFA to 3 billion FCFA during this period. "In ten years, from 2011 to 2021, the turnover of the press has fallen by 82%, from 5.4 billion CFA francs in 2011 to less than one billion in 2022" revealed the president of the National Press Authority (ANP), Samba Koné, on Thursday July 21, 2022 on the occasion of the award ceremony for the best press companies in Côte d'Ivoire held in Abidjan (Cyprien, 2022).

4. CONCLUSION

Ultimately, this study on the socio-educational and demographic profile of Ivorian journalists in connection with the professionalization of the sector, through the case of the daily newspapers Fraternité Matin, Le Patriote, Notre Voie and Soir Info, gives us the following main lessons :

- aspirants to the profession of journalism enter the profession with adequate intellectual potential, but unsuitable and unfavorable working conditions are limiting factors to the emergence of this potential
- the lack of continuous training, insufficient salaries and the poor quality of social benefits prevent most journalists from considering the end of their career in the profession
- all these elements together make the Ivorian journalist one of the weak links in the media system and constitute major obstacles to the professionalization of the sector.

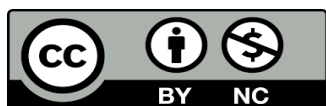
An appropriate response to this problem must however be thought out through an in-depth diagnostic study taking into account all the other actors and factors (printers, publishers, distributors, consumers of the information product, competition from the Internet, etc.) of the Ivorian media ecosystem, with a view to providing a viable and effective global solution, within the framework of a systemic analysis. It is undoubtedly at this price that we could find lasting and satisfactory solutions for all.

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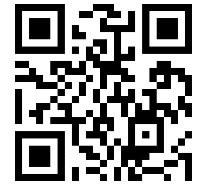
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The Effort of the Trainer in Managing Arrow Training In Pati Regency during the Covid-19 Pandemic



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ABSTRACT: This study aims to determine (1) the constraints of trainers in managing archery training in Pati Regency during the Covid-19 pandemic. (2) The trainer's efforts in managing the archery training of Pati Regency during the Covid-19 pandemic. This research is a mixed method (*mixed methods*). The population in this study were 3 coaches and 16 athletes in Pati Regency. The samples used are 3 coaches and 16 athletes based on *total sampling*. The instruments in this study, namely interviews and questionnaires. Data analysis used descriptive qualitative and quantitative. The results showed that (1) the trainer's obstacle in managing archery training in Pati Regency during the Covid-19 pandemic was adaptation related to the use of available technology to support the training process a form of archery training carried out during the Covid-19 pandemic, the coach used *online* and offline media (face to face). The problem that occurs is the availability of quotas that require a fairly high price to facilitate the need for online training. The quota purchased for internet needs is increasing and many parents are not ready to increase the budget in providing internet networks. (2) The efforts of the trainers in managing the archery training in Pati Regency during the Covid-19 pandemic were quite good. Based on the results, it shows that the indicator of the exercise schedule is the highest at 3.00 in the good category, while the lowest indicator is the exercise program at 2.53.

KEYWORDS: the efforts of the coach, managing the exercise, the Covid-19 pandemic

INTRODUCTION

The worsening of the Covid-19 virus outbreak in Indonesia requires the government to take a stand. Governments around the world are taking various measures to contain and stop the spread of this virus. In Indonesia, the government is doing various ways to avoid Covid-19, starting from social distancing, lockdown, PPKM level 1 to PPKM level 3 which resulted in various activities in Indonesia being hampered such as politics, economy, social, culture (Khoirunurrofik et al., 2022).

The policies carried out by the government in education are carried out online, the government also implements policies regarding physical distancing, namely maintaining distance. This policy causes all activities to be hampered. In daily activities it becomes hampered and becomes not conducive. This includes physical activities such as sports. Sport is a daily activity carried out by humans with the aim of forming a healthy body and spirit (Griban et al., 2020).

Sport is currently proven to improve a person's health and physical fitness (Fletcher et al., 2018). Someone who has a healthy and excellent body fitness can carry out sports activities to the maximum and not get tired easily and have energy reserves that can do other activities (Cheval & Boisgontier, 2021). In Indonesia, every region also feels the impact of this policy, including Pati Regency. With this policy, all sports activities, especially archery, cannot be carried out.

Seeing the situation and the pandemic phenomenon in Pati Regency, which is a red zone, trainers can perform various forms of exercise that can adapt to existing conditions. Based on observations, in doing virtual exercises from home, nutritional assistance, virtual theory exercises and even mental (psychic) exercises. Virtual training must be able to be carried out by trainers in order to maintain the optimal performance of an athlete during the current Covid-19 pandemic.

Routine training was stopped because the Large-Scale Social Restriction (PSBB) policy prohibited crowding activities at the time when Covid-19 was declared a pandemic. Athletes must exercise independently with reduced exercise intensity considering that WHO advises all citizens of the world to maintain immunity and reduce excessive activity so that they are not susceptible to disease, especially Covid-19. Independent training activities make athletes feel bored because their implementation cannot be

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supervised by coaches. Coaches simply provide training programs and doses through a group of social networking applications and evaluate them with the results at a glance the training records documented by athletes during self-training. Coaches still find it difficult because they have to adapt to new situations. The training process must continue to be carried out because athletes have a responsibility to practice and maintain their appearance or performance with the aim of still being able to produce their best performance. In the implementation process, of course, athletes experience various conditions that affect the training process, both psychologically and physiologically. As a coach, it is very important to pay special attention to the talents of an athlete with the aim of achieving their maximum potential. Before the pandemic, coaches provided very routine and high-intensity training aimed at supporting the performance of a good athlete. In the current pandemic, coaches are very constrained in providing training in terms of physical, technical, and mental exercises which are carried out regularly with a moderate volume of exercise.

In addition to coaches, athletes also admit that they are not familiar with managing training programs during the current pandemic, not only that they also do not have high motivation, the technology used is also not too adequate, so the planned training program cannot be carried out optimally. When doing direct training, a coach only does exercises just to maintain the athlete's performance without considering the training objectives to be achieved. Therefore, a trainer must play an active role in conditions like this so that the program they run can be carried out according to the desired target.

Coaching really needs to be done during training which is an important stage in achieving sports achievements (Nikander et al., 2022); (Aldapit & Suharjana, 2019); (Hosek & Man, 2021). During the Covid-19 pandemic, many sports clubs did not pay much attention to this, the sports coaching system in Indonesia is talent scouting. So to achieve a high level of achievement, a good training system is needed during the current pandemic. coaching in schools, clubs, and communities that aim to achieve a desired achievement.

METHOD

This research uses mixed research methods (*mixed methods*). (Schoonenboom et al., 2018) states that the combined research method (*mixed methods*) is a research method that combines or combines quantitative methods with qualitative methods to be used together in a research activity, in order to obtain more comprehensive, reliable, objective data, and valid. The mixed method used in this study is a concurrent *mixed method*, which is a study that combines quantitative data and qualitative data at one time. The data collection technique in this study used an instrument in the form of a closed questionnaire through a *google form*. The population in this study are 3 trainers and 16 athletes in Pati Regency. The sampling technique is total sampling, meaning that the entire population is taken as a sample. Instruments or tools used in the form of interviews and closed questionnaires. A closed questionnaire is a questionnaire that is presented in such a way that the respondent only needs to put a checklist (✓) in the appropriate column or place, with a direct questionnaire using a multilevel scale. The detailed questionnaire instrument can be described in the research instrument grid which can be seen in Table 1:

Table 1. Questionnaire Grid

Variable	Indicator	Item Number	
		Favorable	Unfavorable
Trainer's Efforts in Managing Pati Regency Archery Training	Training schedule	1, 2	3, 4
	Exercise program	7, 8, 9, 10, 11, 13, 14	5, 6, 12
	Facilities and infrastructure	15, 16, 17, 18, 19, 20	21, 22
	Athlete	23, 24, 26	25, 27
	Performance	29, 30	28, 31, 32
Amount		32	

The instruments in this study have been validated by expert lecturers. There are two data analysis techniques in this study, namely quantitative and qualitative. Quantitative data analysis technique uses arithmetic mean. The steps are as follows: (1) Summing up the answer scores of each respondent. (2) The number of respondents' scores divided by the number of question items. (3) Summing up the average score of each respondent. (4) The average number of scores divided by the number of samples. The interval table based on the arithmetic mean is presented in table 2 as follows:

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Table 2. Norms Based on Arithmetic Means

No.	interval	Criteria
1	3.26-4.00	Very good
2	2.51-3.25	Well
3	1.76-2.50	Not enough
4	1.75-1.00	Very less

Activities in qualitative data analysis are carried out interactively and take place continuously until complete, so that the data is saturated. Activities in data analysis, namely *data reduction*, *data display*, and *conclusion drawing/verification*. This research uses two types of technique triangulation and source triangulation. Both are used together with the aim that the resulting data can be trusted. In triangulation, the researcher combines the data from observations and interviews. In triangulation of sources, researchers combine data from various sources including research subjects, namely coaches and athletes.

RESULTS

Constraints of coaches in managing athletic training in Pati Regency Archery during the Covid-19 pandemic

Based on the results of interviews with archery coaches at the Pati Training Archery Club, it was stated that athletics was still being carried out during the Covid-19 pandemic (P1/1/5/2022), but its implementation was not optimal (P2/3/5/2022). Based on the results of the study, the form of athletic training carried out during the Covid-19 pandemic, coaches used online and offline media (face to face). The online media used are Whatsapp, Zoom Meeting, Google Meet, Google Classroom, Youtube. Offline exercise is also done if possible with strict health rules or protocols. Exercise is carried out by checking body temperature, always wearing a mask or face shield, washing hands before and after exercise or using a hand sanitizer, maintaining distance or minimizing direct contact, maintaining cleanliness and reducing exercise duration. Coaches are also quite difficult in managing training schedules because they have to be adjusted to the changes that occur during the pandemic. The exercise program also cannot run optimally. The online training system (on the network) is a training system without face to face directly between the trainer and the trainees but is carried out online using the internet network (Rabbani et al., 2022); (Sebastian et al., 2022). The implementation of archery training, especially online training during the Covid-19 pandemic, encountered several obstacles. The problem that occurs is the availability of quotas which require a high enough price to facilitate online training needs. The quota purchased for internet needs has soared and many parents are not ready to increase their budget in providing internet networks. This is also a very important issue for trainers and trainees when archery training is carried out.

Coach's Efforts in Managing Archery Training at the Pati Regency Archery Club during the Covid-19 Pandemic

The coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic were known by using a questionnaire totaling 32 items, and divided into 5 indicators, namely training schedules, training programs, facilities and infrastructure, athletes, and achievements. The results of the analysis of the coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic are explained as follows:

Table 3. Results of the Coach's Efforts in Managing Archery Training at the Pati Regency Archery Club during the Covid-19 Pandemic

Respondent	Arithmetic Mean	Information
Trainer	2.53	Well
Athlete	2.33	Not enough

Based on Table 3 above, shows that the coach's efforts in managing athletic training at the Pati Regency Archery club during the Covid-19 pandemic were based on the coach's assessment of 2.53 in the good category, while based on the athlete's assessment of 2.33 in the poor category. Based on these results, it shows that the coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic have been quite good.

Training Schedule Indicator

The results of the analysis of the coach's efforts in managing archery training at the Pati Regency Archery club during the Covid-19 pandemic based on the training schedule indicators are explained as follows:

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Table 4. Results based on Training Schedule Indicators

Respondent	Arithmetic Mean	Information
Trainer	3.00	Well
Athlete	2.53	Well

Based on Table 4 above, shows that the coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic based on the training schedule indicator for the coach's assessment of 3.00 in the good category, while based on the athlete's assessment of 2.53 in the good category. Based on these results, it shows that the coach's efforts in managing athletic training at the Pati Regency Archery Club during the Covid-19 pandemic based on the training schedule indicators are good.

Exercise Program Indicator

The results of the analysis of the coach's efforts in managing athletic training at the Pati Regency Archery club during the Covid-19 pandemic based on the training program indicators are explained as follows:

Table 5. Results based on Exercise Program Indicators

Respondent	Arithmetic Mean	Information
Trainer	2.53	Well
Athlete	2.41	Not enough

Based on Table. 6 above, shows that the coach's efforts in managing athletic training at the Pati Regency Archery club during the Covid-19 pandemic were based on the training program indicators for the coach's assessment of 2.53 in the good category, while based on the athlete's assessment of 2.41 in the poor category. Based on these results, it shows that the coach's efforts in managing athletic training at the Pati Regency Archery Club during the Covid-19 pandemic based on the training program indicators are quite good.

Facilities and Infrastructure Indicators

The results of the analysis of the coach's efforts in managing archery training at the Pati Regency Archery club during the Covid-19 pandemic based on facilities and infrastructure indicators are explained as follows:

Table 6. Results based on Facilities and Infrastructure Indicators

Respondent	Arithmetic Mean	Information
Trainer	2.54	Well
Athlete	2.30	Not enough

Based on Table. 7 above, shows that the coach's efforts in managing athletic training at the Pati Regency Archery club during the Covid-19 pandemic were based on the training program indicators for the coach's assessment of 2.54 in the good category, while based on the athlete's assessment of 2.30 in the less category. Based on these results, it shows that the coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic based on facilities and infrastructure indicators are quite good.

Athlete Indicator

The results of the analysis of the coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic based on athlete indicators are explained as follows:

Table 7. Results by Athlete Indicator

Respondent	Arithmetic Mean	Information
Trainer	2.53	Well
Athlete	2.26	Not enough

Based on Table 7 above, shows that the coach's efforts in managing archery training at the Pati Regency Archery club during the Covid-19 pandemic based on the training program indicators for the coach's assessment of 2.53 in the good category, while based

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on the athlete's assessment of 2.26 in the poor category. Based on these results, it shows that the coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic based on athlete indicators are quite good.

Performance Indicator

The results of the analysis of the coach's efforts in managing archery training at the Pati Regency Archery Club during the Covid-19 pandemic based on achievement indicators are explained as follows:

Table 8. Results based on Achievement Indicators

Respondent	Arithmetic Mean	Information
Trainer	2.60	Well
Performance	2.13	Not enough

Based on Table 8 above, shows that the coach's efforts in managing athletic training at the Pati Regency Archery club during the Covid-19 pandemic were based on the training program indicators for the coach's assessment of 2.60 in the good category, while based on the performance assessment of 2.13 in the poor category. Based on these results, it shows that the coach's efforts in managing athletic training at the Pati Regency Archery Club during the Covid-19 pandemic based on performance indicators are quite good.

Researchers also conducted interviews with athletes for triangulation data, based on the results of interviews with athletes stating that with changes in the training schedule that often fluctuates, athletes feel uncomfortable during exercise. This is because the athlete is still a student, so the training schedule must be adjusted to the school schedule and other activities. The training process must continue to be carried out because athletes have a responsibility to practice and maintain their appearance or performance with the aim of still being able to produce their best performance. In the implementation process, of course, athletes experience various conditions that affect the training process, both psychologically and physiologically.

DISCUSSION

Trainers' Obstacles in Managing Archery Training in Pati Regency during the Covid-19 Pandemic

Every exercise is carried out there will be athletes who do not attend the training. This is because the club urges its athletes not to go to training when the body is not feeling well or sick. The coach stated that parents have high concerns when their children take part in training, there are even athletes who are prohibited from participating in training during the Covid-19 pandemic.

Based on the results of the study, the form of archery training carried out during the Covid-19 pandemic was the trainer using *online* and *offline* media (face to face). The *online* media used are *Whatsapp*, *Zoom Meeting*, *Google Meet*, *Google Classroom*, *Youtube*. *Offline* exercises are also carried out if possible with health rules or protocols. Exercise is carried out by checking body temperature, always wearing a mask or *face shield*, washing hands before and after exercise or using a *hand sanitizer*, maintaining distance or minimizing direct contact, maintaining cleanliness and reducing exercise duration.

These various *platforms* can be used to support knowledge transfer supported by various discussion techniques and others. *Online* learning is effective for carrying out learning even though educators and trained children are in different places (Ferri et al., 2020); (Churiyah et al., 2020); (Suryaman et al., 2020). The variety of *platforms* and available resources help support the training process during the Covid-19 pandemic. Online training is a new way in the training process that utilizes electronic devices, especially the internet, in delivering training (Noor et al., 2020); (Elfaki et al., 2019). Online training, completely dependent on internet network access (Sadeghi, 2019).

This is in accordance with the Minister of Education and Culture of the Republic of Indonesia regarding Circular Letter Number 4 of 2020 concerning the Implementation of Education Policies in the Emergency Period for the Spread of Corona Virus Disease (Covid-19). Circular Letter Number 3 of 2020 on Education Units and Number 36962/MPK.A/HK/2020 concerning the Implementation of Education in the *Coronavirus Disease* (Covid-19) Emergency Period, learning activities are carried out online in the context of preventing the spread of *coronavirus disease* (COVID-19) (Minister of Education, 2020).

The implementation of archery training, especially online training during the Covid-19 pandemic, experienced several obstacles. The problem that occurs is the availability of quotas that require a fairly high price to facilitate the need for online training. The quota purchased for internet needs has soared and many parents are not ready to increase the budget in providing internet networks. This is also a very important problem for coaches and trainees when archery training is carried out.

The impact of the Covid-19 pandemic has forced all training activities to be adjusted. The government has banned face-to-face activities for a certain period of time, because it has the potential to transmit the virus (Lou et al., 2022); (Ali, 2020). Likewise, archery training activities, must make a lot of restrictions and adjustments. Apart from the delay in major events in the world of

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sport, WHO prepares steps or protocols that must be adhered to when holding a mass meeting, (Keshkar et al., 2021); (Ludvigsen & Parnell, 2021). (Ebrahim et al., 2020) identifies the steps that must be carried out, namely: this disease en masse, implementing *physical distancing* to reduce direct contact, travel restrictions, including the reduction of flights and public transportation as well as route restrictions without reducing essential services, quarantine at home. Of course this has an impact on sports activities that usually involve many people. Whether it's match activities or training activities in sports clubs.

Entering the *New Normal period*, a number of activities can already be carried out with rules or health protocols that must be obeyed by people who will carry out activities. The importance of following the health protocol rules that must be implemented is to reduce the spread of the Covid 19 virus (Maemunah, 2021). Always wearing a mask when outside the home, diligently washing hands and maintaining distance, are health protocols that must be obeyed by everyone who does activities outside the home. The government is preparing scenarios for the recovery of economic activities, schools and other activities (Yulistiana et al., 2022); (Hasanah et al., 2022).

Coach's Efforts in Managing Pati Regency Archery Training during the Covid-19 Pandemic

Based on the results of the analysis, it was shown that the coach's efforts in managing archery training in Pati Regency during the Covid-19 pandemic were quite good. The main task in training is to explore, compile, and develop the concept of practicing to train by combining practical experience and scientific approaches, so that the training process can take place precisely, quickly, effectively, and efficiently. A coach is a professional whose job is to help athletes achieve high performance (Purcell et al., 2019). The coach (*coach*) is someone who is in charge of helping athletes to improve perfection. The perfection of an athlete involves 4 (four) dimensions, namely: physical aspects, healthy and fit, skilled, and biomotor (Burhanuddin et al., 2021). Spiritual aspects concerning personality, motivation, self-confidence, discipline, independence and honesty. Social aspects include cohesiveness, tolerance, obeying the rules, and respecting others. The religious aspect includes piety, winning or losing because of the pleasure of Allah SWT.

Adaptation ability refers to the characteristics in building the environment (Pinder & Renshaw, 2019). Adaptive individuals will anticipate problems and develop alternative solutions for various possibilities in assessing and responding to a changing environment (Boylan & Turner, 2017). According to (Smith & Webster, 2018) increasing adaptability can lead individuals to sell innovative ideas effectively through self-confidence. In other words, self-perception of adaptability will lead individuals to act in innovative ways so as to motivate themselves to succeed in justifying the resulting innovations for others. Adaptability will increase exposure to various tasks, experiences and to other people around which will later increase the ability of individuals in situations where individuals have to develop new strategies and skills.

Based on the results, it shows that the coach's efforts in managing archery training in Pati Regency during the Covid-19 pandemic based on the training schedule indicators are quite good. Paying attention to the existing sports coaching system and pathways, the centralization of sports coaching must be carried out in a fundamental, systematic, efficient, and integrated manner starting from an early age, and leading to one goal. Sports coaching is inseparable from a structured system.

Based on the results, it shows that the trainer's efforts in managing archery training in Pati Regency during the Covid-19 pandemic based on the training program indicators are quite good. Exercise is basically a load (motor stimulation) on the body so that it causes the body's response in the form of response and adaptation. Response is the body's immediate response during the training process which is temporary. Adaptation is the body's response to training loads that occur in a relatively long period of time and are relatively permanent (Paquette et al., 2020). Training is a process of systematically preparing the athlete's organism to achieve maximum performance quality by being given regular, directed, increasing and repeated physical and mental loads (Doewes et al., 2020); (Wijaya et al., 2020). The competition is the culmination of the process of training in sports, with the hope that athletes can perform optimally. To get optimal performance, an athlete cannot be separated from the training process.

Exercise is a type of physical activity that requires planning, is structured, and carried out repeatedly with the intention of improving or maintaining one or more components of physical fitness (Wolf et al., 2021). The training environment also has a direct or indirect effect on the success or achievement of athletes. The training environment as "direct or indirect, internal or external to the team/athlete, situational, social, sporting or physical conditions that affect coaching process, coaching performance and results" (Wergin et al., 2018).

Based on the results, it shows that the trainer's efforts in managing archery training in Pati Regency during the Covid-19 pandemic based on facilities and infrastructure indicators are quite good. Sports facilities and infrastructure are very fundamental in the implementation of sports, without adequate facilities, it is impossible for athletes to channel their talents in training to the fullest. Sports coaching needs to be supported by improving sports facilities and infrastructure and competent human resources.

The availability of proper and adequate sports infrastructure and facilities, periodic tests and measurements of the physical and psychological health conditions of athletes cannot but be carried out and held to support achievement. This, of course, requires a

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large budget and cannot be imposed on only one or two parties. Therefore, in the development of sports achievements, it is necessary to have good and synergistic collaboration and cooperation between related parties, both athletes, coaches, coaches, sports branch managers, KONI and the Regional Government or other parties who want or are willing and able to help (support) in the development of sports achievement.

The results show that the coach's efforts in managing archery training in Pati Regency during the Covid-19 pandemic based on athlete indicators are quite good. Athlete must have special talents, strong motivation, and a desire to work hard, all of which are characteristics of a successful athlete. To achieve maximum performance, starting with the selection of athletes, the selection must prioritize several variables that are carried out carefully and precisely. Some of the variables in the selection of athletes include interest, potential (talent), body posture, and biomotor components.

A good personality must be possessed by an athlete because, it can be used as a determinant of achievement for sports and can be used for every individual to help according to certain types of sports. Sports psychology, especially the emotional mentality of good athletes is also an increasingly decisive contributor in the process of coaching and improving athlete performance. The development and preparation of an athlete's mental control is very much needed to support his appearance when competing. Finding specific individuals and encouraging them to pursue their talents to the fullest is a challenge. Athletes must implement in order to be successful in developing their abilities to a higher level.

Based on the results, it shows that the coach's efforts in managing achievement training during the Covid-19 pandemic based on performance indicators are quite good. Sports achievements cannot be obtained easily and instantly. To achieve achievement in sports requires maximum effort from various parties involved and a long time. Efforts to achieve optimal performance are influenced by the quality of training, while the quality of training is determined by various supporting factors, including: the ability and personality of the coach, facilities and equipment, research results, competitions and athletes' abilities which include talent and motivation, as well as the fulfillment of nutrition and style athlete's life.

CONCLUSION

Based on the results of data analysis and discussion, it can be concluded that (1) the trainer's obstacle in managing archery training in Pati Regency during the Covid-19 pandemic is adaptation related to the use of available technology to support the training process. The form of archery training carried out during the Covid-19 pandemic, the coach used *online* and offline media (face to face). The problem that occurs is the availability of quotas that require a fairly high price to facilitate the need for online training. The quota purchased for internet needs has soared and many parents are not ready to increase the budget in providing internet networks. (2) The efforts of the trainers in managing the archery training of Pati Regency during the Covid-19 pandemic were quite good. Based on the results, it shows that the indicator of the exercise schedule is the highest at 3.00 in the good category, while the lowest indicator is the exercise program at 2.53.

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Exploring the Factors that Affect Employee Motivation during COVID-19 Pandemic: An Empirical Study from Indonesia



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ABSTRACT. The COVID-19 pandemic has created working condition that is totally new to working population globally, including Indonesia. Social distancing policies have forced employee to work from home where work-life and family-life domains become blur and may increase level of stress due to various reasons. Employees that need to work in the office may be fear of infection if the working environment is perceived not safe. Other factors, such as leadership style, may complicate the issues faced by the employees. Previous studies on how COVID-19 pandemic affects employee motivation are still limited. This study answers the limited research on employee motivation during COVID-19 pandemic and attempts to minimize the gap by investigating the relationship and impact of four independent variables (safe working environment, special benefit, perceived work-life balance, and transformational leadership) on employee motivation during COVID-19 pandemic. Online questionnaire survey method was employed to collect data from 325 active working employees mainly across Java Island. Multiple regression using SPSS version 25 was applied to analyze the data. Results show that all four variables have positive relationship with employee motivation. However, only three variables (safe working environment, special benefits, and transformational leadership) have significant impact on employee motivation.

KEYWORDS: COVID-19, employee motivation, safe working environment, special benefits, work-life balance, transformational leadership

INTRODUCTION

The outbreak of novel coronavirus (SARS-CoV-2) that hit the world in early 2020 has forced many companies to adopt remote working or famously addressed as work-from-home (WFH). Working at home is different compared to working in the office where problems can be discussed and resolved immediately with work colleagues or superior. Working remotely means an employee must have sufficient knowledge to solve the problem encountered without the help of others and yet the expected performance is the same with working in the office when all facilities are available. Working from home may blur the boundaries between work life and family life. Therefore, working at home may induced stress level and demotivated employees.

In the current competitive market, employee motivation has become a critical success factor for an organization to achieve its objectives. Motivation can be distinguished into intrinsic motivation and extrinsic motivation. Deci (1972) defined intrinsic motivation as inherent motivation reside in a person where an activity is performed for the sake of enjoyment with no reward expectation, and extrinsic motivation is defined as motivation to perform an activity because it will lead to external rewards such as status, recognition, or passing grades. Deci (1972) argues that monetary rewards will decrease intrinsic motivation because it will make people dependent on monetary materials. Working professionals are motivated by different factors, whether it is intrinsic motivation where self-satisfaction in completing a task is enough while other may need an extrinsic motivation to complete a task. During COVID-19 pandemic, fear of infection has forced many companies to adopt work from home policies to adhere social distancing, this has created new working environment where collaboration between employees is now done online instead of offline prior to pandemic. This new working arrangement can be stressful when the employees are not equipped with sufficient knowledge to resolve problem by themselves or using online media to collect data or collaboration which have higher level of difficulty compared to collecting data or collaborating in person when all employees are working in the office premises. Therefore, it is important to study which factors motivate employees amidst current COVID-19 pandemic. There may be many factors that affecting employee motivation during COVID-19 pandemic, however, for this study, we limited the motivation factors

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to four variables only that we considered the most relevant variables (safe working environment, special benefits, perceived work life balance and transformational leadership).

Prior to COVID-19 pandemic, definition of safe working environment is limited to certain industries and related to work accident or to prevent employees from physical accident in the workplace which can be managed through proper training to operate the machines in the factories, tools in the construction site or put safety sign in the dangerous location, among other things. Since COVID-19 pandemic affects working population globally, the definition of safe working environment has changed tremendously and affect working population in different ways due to fear of infection. Safety is an important factor to employee motivation and performance (Wolor et al., 2020) during COVID-19 pandemic. Therefore, it is imperative for organizations to ensure their employees feel safe by implementing strict health protocol suggested by World Health Organization (WHO). Munir et al. (2021) found that working environment has substantial impact on employee motivation. During pandemic, a safe working environment will motivate employee to perform well despite the threat of infection.

Rewards are linked to performance where rewards motivate employees to excel. In normal business condition, intrinsic rewards such as encouragement or appreciation (Baqir et al., 2020) may be enough to motivate employees to excel. However, during pandemic condition, encouragement or appreciation may not be enough to boost employee motivation because fear of infection will change employee mindset. Employee may become reluctant to work in the office and choose to work from home instead due to fear of infection, however, not all have the luxury to work from home especially those who work in the essential industries. Work from home may also incur additional expense for data communication to connect online for meetings. Therefore, extrinsic rewards may be more relevant to boost employee motivation during pandemic, i.e., additional transportation allowance will allow employees to choose their own comfortable transportation rather than public transportation, additional allowance for internet expense may ease the burden of employees who work from home. However, little are known whether these extrinsic rewards are effective to boost employee motivation, thus, this will be the focus of the current study.

Work life balance has become an important topic and has been studied since decades ago (Guest, 2002; Felstead et al., 2002; Byrne, 2005) where work life balance is perceived to be achieved when employees are allowed to manage their works from their own home. Work from home has become more prevalent now amidst COVID-19 global pandemic that started in early 2020. Byrne (2005) argues that work life balance is important and could be benefited the employer because when perceived work life balance is achieved, an employee will become more motivated, productive, and less stressful. Felstead et al. (2002) suggest that work from home is not for everybody but limited to individual working in the public sector, large establishments, and working environment where the individuals are responsible for their own result. However, COVID-19 pandemic that hit the world since early 2020 has made work from home available for almost every individual except those individuals that work in the essential industries such as food, utilities, hospitals etc.

Work from home will require certain ICT skill and steady internet connection to connect online with coworkers and third parties for meetings and collaboration. Lack of skill in using online application and unstable internet connection will lead to emotional exhaustion and stress due to meetings take longer than in-person meeting. Consequently, work domain and family life domain boundaries will become significantly blurred and is likely to increase tension if work from home is prolonged amidst COVID-19 pandemic (Kusairi et al., 2021). Contrary, work from home will be advantage for those that equipped with ICT skill and stable internet connection where there is enough time to juggle between work life and family life. However, equipped with ICT skill may not be enough as research reveals that women were affected the most during COVID-19 pandemic where they were buried with heavy workloads at home due to lockdowns (Kusairi et al., 2021) caused physical and emotional exhaustion that may lead to decreasing of motivation. The current research will study perceived work life balance during COVID-19 pandemic and how it affects employee motivation.

COVID-19 pandemic has created a new phenomenon that is novel for all working population, however, leaders are expected to play important roles to ease the pain of their subordinates in coping with this new normal. Thus, having an understanding and supportive managers or leaders has become critical factor to achieve perceived work life balance especially in the current pandemic condition. Perceived work life balance become even more important for both physical and mental health because of the fear of infection pressure caused by pandemic. According to Kim et al. (2021), transformational leadership is effective in facilitating performance and mitigating tensions of employees during organizational change in normal business condition. However, in the current pandemic condition, further studies are required focusing on the impact of transformational leadership in motivating employees and facilitating performance.

The four dimensions of transformational leadership are (1) idealized influence where leaders influenced their followers using their charisma to emphasize the importance of purpose, commitment, and decision result from ethical perspective; (2) inspirational motivation where leaders inspire their followers by clearly communicating the vision and future goals and provide reasonable

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meaning on the current task; (3) intellectual stimulation where leaders empower, encourage and stimulate the intellectual of their followers; (4) individualized consideration where leaders act as coach or mentor for their followers (Fauzi et al., 2021). This study will investigate the relationship between transformational leadership during COVID-19 pandemic and employee motivation.

To further understand the factors that affect employee motivation, we summarize our research objectives as (1) to investigate the motivation factors of working employees during COVID-19 pandemic and (2) to study which factors (safe working environment, special benefits, perceived work life balance or transformational leadership) that influence the most on employees working motivation during COVID-19 pandemic. We developed the following research questions using four independent variables and one dependent variable to achieve our research objectives (1) to what extent does the safe working environment influence employee motivation during COVID-19 pandemic, (2) to what extent does the special benefits influence employee motivation during COVID-19 pandemic, (3) to what extent does the perceived work life balance influence employee motivation during COVID-19 pandemic, and (4) to what extent does the transformational leadership influence employee motivation during COVID-19 pandemic.

LITERATURE REVIEW

Employee motivation during COVID-19 pandemic become more prevalent since the adoption of work from home due to social distancing policies. Working remotely can become a big challenge for those that are not equipped with certain technology knowledge. Dividing time between works and taken care of the family can become challenging also especially for those that have demanding leaders that want immediate results with certain high standards.

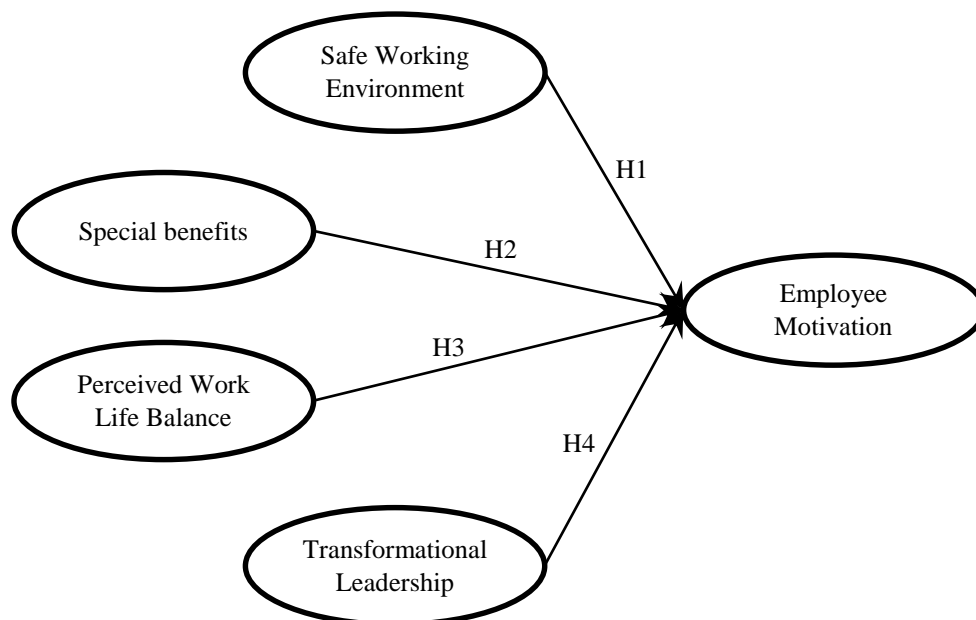


Figure 1. Research Model

To understand the factors that have impact on employee motivation, this study proposes a research model to assess the impact of safe working environment, special benefits, perceived work life balance and transformational leadership towards employee motivation during COVID-19 pandemic condition. The proposed research model is shown in Figure 1 and the theoretical logic for each hypothesis is discussed in the next section.

This study integrates various theoretical perspective generated from literature review to identify the main variables of the research model and establish relationships between them. The main variables in this study are safe working environment; special benefits; perceived work life balance; transformational leadership; and employee motivation.

1.1. Employee motivation

The term motivation originated from the Latin word *movere*, which means to move (Ramlall, 2004). Motivation is what drives a person to act voluntarily in achieving goal. Motivation as defined by Ramlall (2004) is the willingness to apply high levels of effort in pursuit of an organizational goals if the effort is able to satisfy an individual need. The factors that motivate an employee to voluntarily act are depends on the outcome that an employee will receive at the end. A favorable outcome such as reward and appreciation will motivate an employee to exert more efforts compared to unfavorable outcome. According to Khuong and Hoang

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(2015), employee motivation is considered the most important determinants in achieving success and prosperity of an organization in the current dynamic and fierce market competition.

The literature review unveils the existence of many approaches associated with motivation concepts, categorized in accordance with specific criteria. For the purpose of the current study, motivation will be divided into intrinsic and extrinsic motivation. Hennessey et al. (2014), defined intrinsic motivation as the motivation to accomplish something for the sake of one's enjoyment while extrinsic motivation refers to the drive to accomplish something in order to achieve specific external goal or meet imposed external constraint. Intrinsic motivation usually relates the individual to the task where the task comes from within the individual self. The pleasure of completing the task will become the reward for the individual. Extrinsic motivation can be influenced by many factors, including expected reward and recognition, expected evaluation, competition, and external controls over task engagement (Hennessey et al., 2014). The current study will investigate which factors motivate employee more during COVID-19 pandemic whether it is safe working environment, special benefits, perceived work life balance or transformational leadership which are discussed next.

1.2. *Safe working environment*

Literature review reveals that safe working environment studies during COVID-19 pandemic are limited to essential workers, such as construction industry (Pamidimukkala & Kermanshachi, 2021; Araya, 2021; Gan & Koh, 2020), hospitality industry (Hu et al., 2021; Zanni et al., 2021), etc. While in the healthcare industry, the focus is on the workers' health and well-being (Delgado et al., 2020; Foster et al., 2020; Bourgeault et al., 2020). Pamidimukkala and Kermanshachi (2021) studied the challenges faced by construction industry during COVID-19 pandemic to provide safe working environment and practices at the construction site that involved many entities and size working together. As COVID-19 pandemic created a new normal, little are known on the definition of safe working environment. Research by Dennerlein et al. (2020) on the safety management system related to safety, health, and well-being of essential workers during COVID-19 pandemic revealed that essential workers live in fear of infection due to contact with general public that may increase the level of stress. Although essential workers face higher risk of infections because of their interaction with general public, the highly contagious COVID-19 virus may also cause fear in the working population such as white-collar employees. The main concern of employees working in the office is the fear of infection and spread it to their families. The fear of infection may increase the stress level of workers that are required to work in the office and eventually affected their mental health. Therefore, it is imperative for an organization to provide working environment that is perceived safe by its employees.

Munir et al. (2021) suggest that conducive and comfortable working environment is a critical factor to improve and maintain employee morale, increase commitment and productivity. Nakpodia (2011) uncovers a conducive working environment has significant relationship with employees' motivation where all needs to carry out their works are fulfilled. Siswanto et al. (2021) suggest that employees' motivation is affected by the following factors, such as pleasant working environment, rewards for best performance, and fair treatment from the management. During pandemic, pleasant working environment is including safety, cleanliness, and comfortable where employees can perform their works without fear of infection of the virus. In the COVID-19 pandemic setting, a safe working environment will increase employee motivation to work in the office. Thus, we hypothesize:

H1: Safe working environment has positive relationship with employee motivation during COVID-19 pandemic

1.3. *Special benefits*

Siswanto et al. (2021) suggest positive relationship between rewards and motivation. Therefore, rewards are critical factor to motivate employees to perform beyond their original expectation. Rewards are categorized into extrinsic and intrinsic where extrinsic rewards are basically tangible benefits such as pay promotion, holiday abroad, impressive titles and bonuses while intrinsic rewards such as trust, recognition, job satisfaction, empowerment, social status, personal development, etc. are related to employees' personal satisfaction (Baqir et al., 2020).

Alam et al. (2020) introduced broader term called worker welfare that comprising different benefits, facilities and services provided to workers by the employer to boost and motivate their employees. All these benefits provided by the employers are to motivate their employee to perform better. During pandemic, employees that commute to the office using public transportation are afraid of infection on the road from their residential home to office and vice versa. Contrary, employees work from home have concerns on ICT infrastructure at their residential home and may incur higher expense on data communication. As COVID-19 pandemic is a new phenomenon, little are known on which welfare or benefits will boost employees' motivation amidst fear of infection. In the current study, we will investigate whether special benefits provided by the employers, such as transportation allowance to allow employees commute comfortably to office and back home and data communication allowance for employee that work from home will boost employee motivation. Thus, we hypothesize:

H2: Special benefits have positive relationship with employee motivation during COVID-19 pandemic

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1.4. *Perceived work life balance*

COVID-19 has become global pandemic since early 2020 and has forced many companies around the globe to adopt work from home for their employees to stop the spreading of the virus and comply with the regulations of social-distancing policies imposed by many governments around the globe. The concept of work from home or flexible working arrangement or remote working is not a new phenomenon and has been introduced by many companies to improve work life balance of their employees long before the COVID-19 pandemic. However, COVID-19 crisis has put remote working or work from home become a new phenomenon due to its extensity (Oksanen et al., 2021).

Work life balance can be defined as employees' perception of having adequate time to meet their commitments at work and at home or perceived balance between work and non-work activities (Guest, 2002), harmonious division of time and attention between work and personal life (Oksanen et al., 2021), harmony and role conflict minimization between work and personal life domains (Caringal-Go et al., 2021). During work from home, work-life domain and personal-life domain may be interrupted and spillover from one domain to the other where private life may be interrupted by work tasks or online meetings after office hours and work tasks or online meetings in the daytime may be interrupted by family errands or duties (Oksanen et al., 2021). The borders of work-life domain and personal-life domain must be managed carefully to avoid negative spillover and to achieve expected work life balance. In fact, work life balance has become more prevalent during COVID-19 pandemic because most people were forced to spend their time at home juggling between work and family where sometimes work-life and private-life could no longer be separated clearly. While many researchers have studied work life balance (Oksanen et al., 2021; Bauwens et al., 2020; Caringal-Go et al., 2021) but the studies were not directed to employee motivation. Caringal-Go et al. (2021) studied work life balance while telecommuting or remote working, Oksanen et al. (2021) studied the COVID-19 crisis and its impact to work life balance where the border of work-life and personal-life become a thin line, and Bauwens et al. (2020) studied the impact of work-related information and communication technology (ICT) use after hours to work life balance of teachers. We opined that work from home arrangement during COVID-19 pandemic may increase employee's motivation when perceived work life balance is achieved, thus the current study will investigate the relationship between work life balance and employee motivation with the following hypothesis:

H3: Perceived work life balance has positive relationship with employee motivation during COVID-19 pandemic

1.5. *Transformational leadership*

The global pandemic crisis has created unprecedented challenges in many factors that affecting human life from students to employees. In a situation of VUCA (volatility, uncertainty, complexity, and ambiguity) like this, a standout leadership style will make a difference. Leadership can be described as a process that comprises of several factors, one of these could be the ability to influence an organized group towards accomplishing its goals (Hughes, Ginnett, & Curphy, 2019). There are several leadership styles namely, transactional, laissez-faire, and transformational leadership. Deichmann and Stam (2015) defined transactional leadership as a leadership style where the leader clearly expressed the expectation to the followers on the exchange relationship. In this type of leadership, the leader will clearly communicate the expectation including reward for achieved goals agreed upon. Relationship between the leaders and the followers are formal in the transactional leadership and based on the agreed upon objectives set. Transactional leadership will be suitable in a normal setting environment and not pandemic condition. Laissez-faire leadership is described as a passive leadership style where leaders ignore followers' needs and lack of responses to followers' performance and variety of potential stimuli in a variety of circumstances (Hinkin & Schriesheim, 2008). Therefore, laissez-faire leadership will be applicable in an environment where the followers have high capability to work independently and do not need further guidance from their leaders. However, Agotnes et al. (2021) argues that laissez-faire leadership may cause the followers to become frustrated, stress, more vulnerable to experience negative social interaction in the absence of support from the leaders at a particular time. Thus, we opined that laissez-faire leadership style may not be suitable to motivate employee during pandemic time.

Transforming leadership was initially introduced by Burns (1978) as a process where leaders and followers raise one another to a higher level of morale and motivation. Bass (1995) defined transformational leaders as those who motivate their followers to do more than what they originally expected to do and raise the awareness of important matters, and Yammarino (1993) explained that Bernard M. Bass extended the concept of transformational leadership in 1985, by adding three dimensions – inspirational leadership, individualized consideration, and intellectual stimulation – and described that transformational leadership drives employees to work devotedly in accomplishing the organizational goal. Subsequently, Bass and Riggio (2006) summarized the four dimensions of transformational leadership (1) *Idealized Influence (II)*, it refers to the leaders who serve as role models for their followers. Usually, this type of leadership's behavior demonstrating high standards of ethical and moral conduct. Idealized Influence which also refers as charisma is the idealized behavior of the leaders that attract the followers through an emotional

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bond (Fauzi et al., 2021). Cetin and Kinik (2015) suggest that idealized behavior of a transformational leaders motivate their followers to emulate them. (2) *Inspirational Motivation (IM)*, it refers to the leaders who motivate and inspire their followers by involving the followers in envisioning the challenging and appealing future states and clearly communicating the expectations for the followers to meet. In Inspirational Motivation, transformational leaders inspire and motivate their followers by spreading a sense of belief and giving challenges in pursuing company's goals and objectives (Fauzi et al., 2021). (3) *Intellectual Stimulation (IS)*, it refers to the leaders who encourage their followers to be innovative, creative, and thinking outside of the box in solving problem. In Intellectual Stimulation, transformational leaders motivate their followers by stimulating their intellectual to increase their interest in problem-solving, challenge their followers to think outside of box (Fauzi, et al., 2021), and motivate their followers to find other alternative for problem solving by assessing all possible solutions (Cetin & Kinik, 2015). (4) *Individualized Consideration (IC)*, it refers to the leaders who are attentive to their followers needs for achievement and growth by acting as a coach or mentor. In Individualized Consideration, transformational leaders treat each of their followers differently with their personalized attention which will make their followers feel appreciated and recognized, and each follower will be given an individual goal and encouraged to achieve the goal (Fauzi et al., 2021). A supportive climate is established by the transformational leader where individual differences are respected (Cetin & Kinik, 2015).

During COVID-19 pandemic where most employees are forced to work remotely from their own home while at the same time attending to their family needs can be challenging. We opined that transformational leadership style that understand the individual needs of their followers become more prevalent in this situation. Thus, we hypothesize:

H4: Transformational leadership has positive relationship with employee motivation during COVID-19 pandemic.

RESEARCH METHODOLOGY

This current study used a correlational study in a non-contrived settings and individual employee that is currently has occupation as the unit of analysis. A cross-sectional study method was applied where data was collected at one point in time in duration of five days in normal environment (Sekaran & Bougie, 2016). Specific questionnaire was designed to measure the hypotheses of five variables described in the Research Model depicted in Figure 1. Each variable was operationalized by developing definition, dimension and indicators that was used to design the questionnaire or item measurement (Table 1). Multiple regression analysis using SPSS version 25 was applied to test the survey result and helped to identify error in response, outlier, and measure the data result with some statistical data for analysis.

The study population were employees with working location mainly in Java Island. We were using non-probability convenience sampling method with a sampling size of 325 respondents as suggested by Memon et al. (2020) where sampling size must be between 30 to 500 for behavioral study based on Roscoe's (1975) guideline which has been a common choice for the last few decades. A five-point Likert scale that ranged from 1 "strong disagree" to 5 "strongly agree" was used as a measurement for the questionnaires that will be conducted through online survey. To ensure the quality of responses, we distributed the questionnaire to white-collar employees and used "currently active working" as filter for the respondent to continue answering the questionnaire.

Table 1. Item Measurement

Variable	Dimension	Item Measurement
Safe working environment (SWE)		
SWE 1		I feel safe and comfortable at work because the company I work for strictly enforces government regulations regarding health protocols in the work environment.
SWE 2		I feel safe and comfortable at work because the company I work for has a task force for handling the COVID-19 pandemic.
SWE 3		I feel safe and comfortable at work because the company I work for ensures safe workplace arrangements for employees such as installing partitions and maintaining distance between employees.
SWE 4		I feel safe and comfortable at work because the company where I work does air and workspace cleaning regularly and periodically.

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Variable	Dimension	Item Measurement
SWE 5		I feel safe and comfortable because the company where I work provides masks, face shields, gloves, and PPE (personal protective equipment) for those who need it.
Special benefit (SB)		
SB 1		Companies should pay more attention to their employees by providing vitamins/supplements for their employees.
SB 2		The company must provide work-at-home operational allowances (internet quota, telephone credit).
SB 3		The company provides transportation allowances so that employees do not need to use mass public transportation.
SB 4		The company provides/pays for the cost of regular antigen/PCR swab tests.
SB 5		The company provides healthy and delicious catering at work, so the employees don't have to go out of the office into the crowd.
Perceived work-life balance (PWLb)		
PWLb 1		I feel more efficient working from home because I can avoid traffic jams on the road.
PWLb 2		By working from home, I can avoid unnecessary conflicts.
PWLb 3		By working from home, I have the flexibility to do various activities.
PWLb 4		I can separate work time and family time.
PWLb 5		Working from home gives me the freedom to organize and complete my own work.
Transformational Leadership		
TL 1	Idealized Influence (II)	My supervisor makes me feel comfortable working with him.
TL 2		My supervisor has good credibility and can be trusted.
TL 3		My supervisor has expertise, knowledge, and personality with high ethical and moral standards.
TL 4	Inspirational Motivation (IM)	My supervisor supports and trusts me in my work.
TL 5		My supervisor has a clear vision and uses simple and easy-to-understand language in giving job instructions.
TL 6		My supervisor pays attention and appreciates my performance sincerely
TL 7	Intellectual Simulation (IS)	My supervisor always encourages me to be innovative and creative.
TL 8		My supervisor always guides and encourages me to think critically in solving problems
TL 9		My supervisor helps me by using new methods for new work problems.
TL 10	Individualized Consideration (IC)	My supervisor pays close attention to each of his subordinates according to their respective conditions and needs.
TL 11		My supervisor prioritizes two-way communication in directing, teaching, and guiding me to ensure the best tutoring results.
TL 12		My supervisor gives challenging assignments, but always provides support and direction, so I learn a lot and can finish the job well.

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Variable	Dimension	Item Measurement
Employee Motivation (EM)		
EM 1		I am motivated at work because my supervisor gives full trust.
EM 2		Competitive compensation provided by the company to employees will increase work motivation.
EM 3		Rewards given by superiors to employees will increase work motivation.
EM 4		A pleasant and respectful work environment can increase employee motivation.
EM 5		The competency development program provided by the Company will increase employee motivation.

RESULTS AND DISCUSSION

From 334 respondents received in the survey, we kept 325 respondents based on currently active working selection criteria. The sample profiles are shown in Table 2. The respondents were 56.3% of female and 47.3% of male. Sixty-one-point five percent (61.5%) of respondents were millennials (age of 21-40) with 51.7% respondents have been working more than 10 years and 71% respondents' education were undergraduate (S1). Eighty-seven (87%) of respondents are working in Greater Jakarta area.

Table 2. Sample Profiles

Variable	Percentage
Gender	
Female	56.3%
Male	43.7%
Age	
Millennials (21-40 years)	61.5%
Gen X (41-56 years)	36.6%
Baby Boomers (above 56 years)	1.8%
Education	
Undergraduate (S1)	77.2%
Graduate (S2)	21.5%
Post-graduate (S3)	1.2%
Year of service	
Less than 3 years	16.3%
3 - 10 years	32.0%
More than 10 years	51.7%
Working location	
Jakarta	57.5%
Greater Jakarta	29.5%
West Java	7.7%
Central Java	1.2%
East Java	0.3%
Others	3.7%
Working Arrangement	
Fully work from home	17.2%
Fully work in the office	43.7%
Hybrid (50% - 50%)	39.1%

We conducted classical assumption test to ensure our regression analysis is valid. First, we tested data normality using regression standardized residual histogram which showed a bell-shaped histogram of standardized residuals and Q plot, where the data

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spreads around the diagonal line and follows the direction of the diagonal line. Based on the result we can conclude that the regression model meets the assumption of normality (Santoso & Tjiptono, 2002). Second, a multi-collinearity check was also tested, and the results of variance inflation factor (VIF) were below the threshold value of 10 and collinearity tolerance > 0.10 which showed no correlation between independent variables (Gujarati, 2003). The results of VIF and collinearity tolerance are shown in Table 3. Last, heteroscedasticity test using the scatterplot method, concluded that there are no heteroscedasticity symptoms or problems in the regression model (Priyatno, 2012).

Table 3

Variables	Collinearity Tolerance	VIF
Safe working environment	.815	1.227
Special benefits	.898	1.113
Perceived work-life balance	.970	1.030
Transformational leadership	.833	1.200

Data validity test using Pearson correlation that correlated between each score item with total score obtained from the respondents' answers to the questionnaire showed all items were valid. In addition, reliability test was evaluated by assessing the internal consistency of the items representing each variable using Cronbach's Alpha with the threshold of 0.70 (Nunnally, 1978). All variables showed Cronbach's Alpha value more than 0.70 which showed that they are reliable to be used in the study. The results are shown in Table 4.

Table 4. Construct Measurement, Validity, and Reliability

Constructs	Mean	Standard Deviation	Pearson correlation	Cronbach's Alpha
Safe working Environment (SWE)				0.854
SWE 1	4.2708	0.83550	0.775	
SWE 2	4.0862	0.90878	0.821	
SWE 3	4.1385	0.85485	0.849	
SWE 4	4.1415	0.83053	0.793	
SWE 5	3.8492	0.97438	0.748	
Special Benefit (SB)				0.814
SB 1	4.1938	0.83294	0.642	
SB 2	4.0985	0.91092	0.746	
SB 3	3.8400	0.99951	0.841	
SB 4	4.1846	0.91780	0.727	
SB 5	3.7169	1.13578	0.820	
Perceived work-life balance (PWL B)				0.861
PWL B 1	3.6400	1.09556	0.826	
PWL B 2	3.3231	1.13186	0.793	
PWL B 3	3.6523	1.09954	0.850	
PWL B 4	3.7785	1.02447	0.665	
PWL B 5	3.7354	1.00499	0.875	
Transformational Leadership (TL)				0.973
TL 1	3.8738	0.88162	0.860	
TL 2	3.9846	0.83319	0.868	

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Constructs	Mean	Standard Deviation	Pearson correlation	Cronbach's Alpha
TL 3	3.9662	0.84002	0.900	
TL 4	4.1169	0.74028	0.821	
TL 5	3.9046	0.87143	0.877	
TL 6	3.9477	0.84640	0.892	
TL 7	3.8215	0.93566	0.870	
TL 8	3.8554	0.92996	0.892	
TL 9	3.7815	0.88102	0.868	
TL 10	3.8154	0.90765	0.898	
TL 11	3.8677	0.89116	0.910	
TL 12	3.8092	0.93981	0.907	
Employee Motivation (EM)				0.819
EM 1	3.9908	0.82210	0.860	
EM 2	4.2154	0.75955	0.868	
EM 3	4.3292	0.71529	0.900	
EM 4	4.5231	0.58022	0.821	
EM 5	4.3077	0.66488	0.877	

Using multi regression analysis, the R square for model summary showed that our independent variables influenced 40.6% to the dependent variables. However, the four variables of safe working environment, special benefits, perceived work-life balance, and transformational leadership together are positively influencing employee motivation ($p < 0.05$). Results are shown in Table 5. Based on hypothesis test result, safe working environment ($\beta=0.092$, $p < 0.05$), special benefits ($\beta=0.091$, $p < 0.05$), and transformational leadership ($\beta=0.155$, $p < 0.05$) showed positive and significant influence on employee motivation during COVID-19 pandemic, thus H1, H2 and H4 are supported. Perceived work life balance ($\beta=0.049$, $p > 0.05$) is positively influence employee motivation during COVID-19 pandemic but not significant, hence H3 is still supported (Figure 2).

Table 5. Result of The Structural Model

Hypotheses	β	t-value	p-value
H1: Safe working environment \rightarrow employee motivation	0.092	2.490	.013
H2: Special benefit \rightarrow employee motivation	0.091	2.682	.008
H3: Perceived work-life balance \rightarrow employee motivation	0.049	1.784	.075
H4: Transformational leadership \rightarrow employee motivation	0.155	11.208	.000

Note: β : positive, t-value: positive

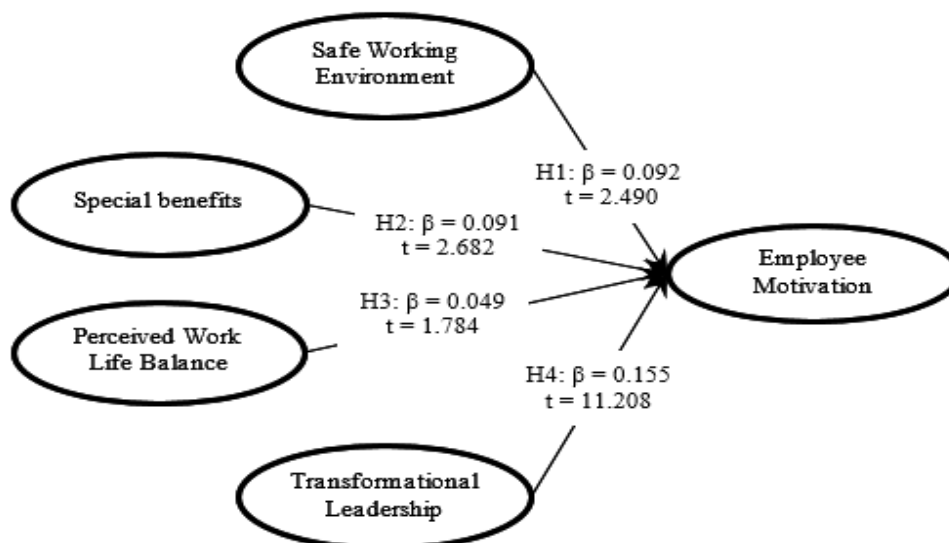


Figure 2. Structural model with results

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Since the COVID-19 pandemic hit the world in early 2020 that affected working population around the globe, limited research is conducted to investigate the employees' motivation because the fear of infection, among other factors, may affect the motivation of employees to physically come to work in the office, thus the current study answers the limited research on employees' motivation during pandemic time. In the current study, we investigated whether and how safe working environment, special benefits, perceived work life balance and transformational leadership influence employees' motivation during COVID-19 pandemic. The results demonstrate that safe working environment, special benefits, and transformational leadership have significant and positive relationship with employees' motivation during COVID-19 pandemic. However, to our surprise, perceived work life balance does not have significant impact on employees' motivation during COVID-19 pandemic.

Munir et al. (2020) found that work environment has a substantial impact on employee motivation in pandemic time. Nakpodia (2011) discovered that a good working environment has significant relationship with employee motivation. The findings are supported by the current study results, since most of our respondents felt comfortable and secure in their current working environment because the company practices strict health protocol imposed by the Government. Working environment that is perceived safe by the employees become important matters during the pandemic time, because it will increase employee motivation to physically come to office to work. Safety working environment during COVID-19 pandemic is more on the psychological side, an organization that adhere the strict protocol such as sitting arrangement that follow social distancing policies, regular cleaning of office ventilation system and office space, among others, will provide safety feeling to the employees, that in return will increase their motivation. This finding is consistent with study by Pamidimukkala and Kermanshachi (2021) where ensuring a safe distance, providing sanitizers, and washing stations will keep employees safe and improve productivity, while Araya (2021) suggests working in shift to address the fear of infection between workers in the construction projects.

In a normal business condition, intrinsic rewards such as encouragement or appreciation from the leaders and extrinsic reward such as salary and benefit, may be enough to motivate the employee to excel, however, during pandemic condition, special benefits such as additional allowance for transportation and internet data, vitamin, and supplements, and providing PCR swab test to those who are in need were proven to positively influencing employee motivation during COVID-19 pandemic as it will ease the burden caused by the pandemic.

Wolor et al. (2020) argues that work from home arrangement during pandemic will increase employees' motivation because the employees feel secure working from their own home and perceived work life balance is achieved. Following Wolor et al. (2020) argument, we hypothesized work from home arrangement during COVID-19 pandemic will increase employee's motivation when perceived work life balance is achieved which in line with Byrne (2005), however, our findings show perceived work life balance does not have significant relationship with employee motivation during COVID-19 pandemic. Employees are forced to work from home due to social distancing policies, this may create additional problem when employees are not equipped with ICT skill and stable internet connection to connect with co-workers or third parties for meetings and collaborations. Although 61.5% of our respondents are millennials which is considered tech-savvy, but unstable internet connection will cause longer meetings or working hours and less personal hours. Also, women were buried with heavy workloads at home during COVID-19 pandemic lockdowns (Kusairi et al., 2021) caused perceived work life balance is not achieved. This correlate with our finding because 56.3% of our respondents is female employees. The result may also be affected by the fact that only 17.2% of our respondents are working from home and 39.1% have hybrid working arrangement (50% work from home and 50% work in the office).

Previous studies on transformational leadership were focusing on transformational leadership in relation to students' entrepreneurial behavior (Fauzi et al., 2021); commitment to change on restaurant employees' quality of work life during a crisis (Kim et al., 2021); and academic leadership behavior (Cetin & Kinik, 2015) while the current study focused on the relationship between transformational leadership and employees motivation and discovered that transformational leadership has significantly and positively influence employees motivation during COVID-19 pandemic. Clear communication, giving trust, continuous support, and encouragement to employees, are some of the many that leaders can support during this time of pandemic. Employees need to feel a comfortable relationship with the leader when working from home. This finding is consistent with study by Deichmann and Stam (2015) in organization-focused idea who found that transformational leadership increase the commitment of the employees to the ideation program.

CONCLUSION AND RECOMMENDATION

Overall, the results of the study show safe working environment, special benefits, perceived work-life balance, and transformational leadership have positive relationship with employee motivation during COVID-19 pandemic, where transformational leadership is the most influencing factor to employee motivation. Safe working environment, special benefits,

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and transformational leadership have significant impact to employee motivation, but not perceived work-life balance, because most of the respondents does not work from home during the period of survey.

Theoretically, this study contributes in three ways: firstly, this study is amongst the few limited studies to examine the constructs that affect employee motivation during COVID-19 pandemic, thus, the current study contributes to the literature by confirming that three constructs – safe working environment, special benefits, and transformational leadership – significantly and positively influence employee motivation during COVID-19 pandemic. Secondly, the current study contributes to the literature by confirming the definition of safe working environment during COVID-19 pandemic. The definition of safe working environment during COVID-19 pandemic is extended to include the psychological side. Thirdly, the current study contributes to the literature by confirming the insignificant relationship between perceived work-life balance and employee motivation during work-from-home arrangement.

However, the current study also has its limitations. First, we employed cross-sectional study through online survey that was opened for five days only and targeted working population mainly in Java Island where generalization cannot be developed to confirm the significant relationship between safe working environment, special benefits, and transformational relationship with employees' motivation. Therefore, it is suggested for future research to apply longitudinal study method and expand to working population outside Java Island to examine whether the generalization can be established. Second, this study cannot generalize the finding of insignificant relationship between perceived work-life balance and employee motivation because only 17.2% of total respondents has work-from-home arrangement. Further studies are encouraged to investigate employees with 100% work-from-home arrangement during pandemic, whether perceived work-life balance is achieved and how it affects employees' motivation, to examine whether generalization can be established. Finally, the constructs of the current study only have influence of 40.6% over employee motivation, therefore, it will be interesting to investigate the remaining constructs that represent 59.4%, whether these constructs have significant impact on employee motivation.

The results presented in the current study indicate the importance of safe working environment, special benefits, and transformational leadership in motivating employees during pandemic time. Therefore, we recommend that organization should adhere to safety protocol during pandemic such as promoting social distancing in the workplace; providing special benefits such as internet data plan or special transportation allowance for the employees to commute safely and comfortably. The other important thing is leadership style that influences the most to employee motivation. Organization needs to have more transformational leaders who communicate well, give trust, continuously encourage and understand the condition faced by the employees during pandemic, and offer supports when needed.

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How is the Lifestyle of Gastritis Patients?

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ABSTRACT: Lifestyle is showing how people live, how to spend money, and how to allocate time. The purpose of this study is to describe the lifestyle of gastritis patients in Banjar Pemijian Sangeh, Abiansemal District, Badung Regency in 2021. This research is a descriptive study with a quantitative design. The approach used is approach cross sectional. The sampling method in this study is Probability Sampling with simple Random Sampling. The research was conducted in February-April 2021 in Banjar Pemijian Sangeh with a total sample of 39 respondents. The results of this study in terms of the characteristics of the respondents, it was found that the average age of those suffering from gastritis from 16-55 years was 26.59 years, with 17 respondents (43.6%) of undergraduate education, and the majority working as private employees as many as 16 people (41.4%). Based on the results of the lifestyle research on gastritis patients who have good eating and drinking habits as many as 31 people (79.50%), and 9 people (23.10%) have sufficient smoking behavior, and good physical activity respondents at the age of 16 -25 years as many as 31 people (79.50), and respondents with a good stress level with 79.50% were 31 people. For gastritis patients, it is hoped that a healthy and good lifestyle can prevent the onset of gastritis.

KEYWORDS: Lifestyle, gastritis

I. INTRODUCTION

In modern times, there has been a shift in the understanding of epidemiology, which used to be more towards infectious diseases, health problems with a very broad scope. This situation occurs because of the transition of disease patterns that occur in the community, shifts in lifestyle, socio-economic improvement of the community and the wider reach of the community [1,2].

Non-Communicable Diseases (NCD) in public health can actually be classified as one of the main NCD groups that have the same risk factors or (Common Underlying Risk Factor). These risk factors include cigarette consumption, unbalanced diet, foods containing addictive substances, lack of exercise and environmental conditions that are not conducive to health. Gastritis is an inflammation of the gastric mucosa, histologically it can be divided into two main categories, namely non-atrophic and atrophic. Gastritis is often found among the general public and even in the world [3-5].

Lifestyle is characterized by individual behavior patterns that will have an impact on individual health, especially an unhealthy lifestyle. The incidence of gastritis in Indonesia is still quite high with a prevalence of 40.8%. Gastritis is one of the digestive tract diseases that often occurs and is most often found in health facilities because the diagnosis is often only based on clinical symptoms, not histopathological examination. Gastritis is often considered a trivial thing, but gastritis is the beginning of a disease that can interfere with a person's quality of life [6-8].

The WHO health research agency conducted a review of several countries in the world and got the results of the percentage rates of gastritis in the world, including the UK 22%, China 31%, Japan 14.5%, Canada 35% and France 29.5%. The incidence of gastritis in Southeast Asia is about 583,635 of the total population each year. According to the percentage of gastritis incidence in Indonesia according to WHO is 40.8% and the incidence of gastritis in several areas in Indonesia is quite high with an incidence rate of 274,396 cases out of 238,452,952 inhabitants. Based on Indonesia's health profile in 2016, gastritis is one of the 10 most common diseases in hospitalized patients in Indonesia with a total of 30,154 cases (4.9%) [6].

According to the Bali Health Profile in 2017, the incidence of gastritis sufferers was ranked 6th out of 10 most disease patterns in patients at the Puskesmas with a total of 19,076 cases. In the Badung area, the incidence of gastritis sufferers reached 941 cases. According to data at the Abiansemal Health Center, the number of gastritis patients in Banjar Pemijian Sangeh was 65 cases.

The impact of the high incidence of gastritis can lead to a decrease in one's work productivity and increased costs for the treatment of gastritis. If left untreated, acute gastritis patients will cause gastric ulcers and bleeding in the stomach, and can

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continue to cause chronic gastritis [9,10].

Controlling gastritis can be done through changing a person's lifestyle efficiently side by side with the use of drugs that have been prescribed. Medical care includes lifestyle modifications to help maintain and improve people's health and well-being. Lifestyle is a way of life or lifestyle that reflects the attitudes and values of a person or group of people expressed mainly in activities, interests and opinions. Lifestyle changes for gastritis patients include eating habits through avoiding high spicy foods, fatty diets, high salt diets, diets high in red meat and preserved meats, with a stressful diet rich in antioxidants such as vitamin C. In addition, avoid smoking, limit alcohol intake, over-the-counter NSAID use, and controlling life stressors. Proper control, prevention and early treatment of infection primarily through proper personal hygiene, food and water sanitation and safe waste disposal [11–13].

Patients are encouraged to get enough sleep, going to bed and getting up at the same time each day. Proper care is an important part of medical care. Most chronic gastritis patients show poor knowledge about the risk factors and complications of chronic gastritis, so they pay minimal attention to its treatment. Poor treatment can affect treatment and reduce the patient's quality of life [10,11].

Therefore, a person's role is very important in encouraging a healthy lifestyle, should focus on teaching patients about gastritis, pathophysiology, identifying risk factors, treatment and treatment plans including modification of unhealthy lifestyles and promoting healthy lifestyles including physical and psychological [14]. From the description of the background above, the researchers are interested in examining the Lifestyle Description of Gastritis Patients.

II. METHOD AND MATERIAL

This research is a descriptive study with a quantitative design. The approach used is a cross sectional approach. This study aims to determine the lifestyle of gastritis patients in Banjar Pemijian Sangeh, Abiansema District, Badung Regency in 2021. The sampling method in this study was the Probability Sampling technique with Simple Random Sampling. This research was conducted in February-April 2021 in Banjar Pemijian Sangeh with a total sample of 39 respondents. The measuring instrument used by the researcher in this research is a questionnaire designed by the researcher himself which has been tested for validation and reliability. The data analysis technique used in this study is descriptive statistical analysis. Presentation of this data in tabular form. With this analysis, it will be known the tendency of research findings to fall into the low, medium or high categories. Answers from respondents to the questionnaire will be scored. The data analysis carried out is univariate analysis.

III. RESULT AND DISCUSSION

Table 1. Frequency distribution of respondent characteristics

Respondent characteristics	n	%
Gender		
Male	18	46.2
Female	21	53.8
Total	39	100
Age		
< 25 year	31	79.5
26-35 year	4	10.2
36-45 year	1	2.6
> 46 year	3	7.7
Total	39	100
Education		
Senior high school	8	20.5
College	31	79.5
Total	39	100
Employees		
Student	10	25.5
Housewife	1	2.6
Private	24	61.5
Civil servant	4	10.3
Total	39	100

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Table 1 shows that the frequency distribution based on the majority age group aged 16-25 years is 31 people (79.50%), female sex is 21 people (53.8%), college education is 31 people (79.5%) and occupation as private employees as many as 24 people (61.5%).

Table 2. Frequency distribution of eating and drinking habits in gastritis patients based on respondent age

Age	Eating and drinking habits						Total	%
	Good		Enough		Less			
	n	%	n	%	n	%		
< 25 year	31	79.5	0	0.00	0	0.00	31	79.5
26-35 year	4	10.2	0	0.00	0	0.00	4	10.2
36-45 year	1	2.6	0	0.00	0	0.00	1	2.6
> 46 year	3	7.1	0	0.00	0	0.00	3	7.1
Total	39	100	0	0.00	0	0.00	39	100

Table 2 shows that the majority of gastritis patients aged <25 years with good eating and drinking habits with a percentage of 79.50% as many as 31 respondents.

Table 3. Frequency distribution of physical activity in gastritis patients based on respondent age

Age	Physical activity						Total	%
	Good		Enough		Less			
	n	%	n	%	n	%		
< 25 year	31	79.5	0	0.00	0	0.00	31	79.5
26-35 year	4	10.2	0	0.00	0	0.00	4	10.2
36-45 year	1	2.6	0	0.00	0	0.00	1	2.6
> 46 year	3	7.1	0	0.00	0	0.00	3	7.1
Total	39	100	0	0.00	0	0.00	39	100

Table 3 shows that the majority of gastritis patients aged <25 years with good physical activity with a percentage of 79.50% as many as 31 respondents.

Table 4. Frequency distribution of stress level in gastritis patients based on respondent age

Age	Stress level						Total	%
	Good		Enough		Less			
	n	%	n	%	n	%		
< 25 year	31	79.5	0	0.00	0	0.00	31	79.5
26-35 year	4	10.2	0	0.00	0	0.00	4	10.2
36-45 year	1	2.6	0	0.00	0	0.00	1	2.6
> 46 year	3	7.1	0	0.00	0	0.00	3	7.1
Total	39	100	0	0.00	0	0.00	39	100

Table 4 shows that the majority of gastritis patients aged <25 years with good stress level with a percentage of 79.50% as many as 31 respondents.

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VI. DISCUSSION

The results of this study revealed that at the age of 16-55 years there was an increased risk of gastritis. Gastritis sufferers can occur at all ages, namely teenagers, adults, and the elderly. However, gastritis often appears in adolescents and adults aged 16 years or older. This is due to lifestyle changes in gastritis sufferers such as eating and drinking habits, smoking behavior, physical activity and stress levels that can trigger gastritis to appear. The results of this study found that the majority of the age group of gastric sufferers were 16-25 years with 31 people (79.50%). The results of this study are in line with research which found that the characteristics of gastritis sufferers were mostly aged 17-36 years. The results of research also found the results of some patients with gastritis aged 15-30 years (75.4%). Research conducted by Tussakinah et al. found that productive age >16 years have a great chance of developing gastritis, where at productive age there are many pressures and excessive tasks at that age which can affect eating patterns and are less selective in choosing Foods that can trigger gastritis [7].

The results showed that gastritis patients with higher education levels had good results. This study found the results that most of the gastritis sufferers with college as many as 31 people (79.5%). These results indicate that higher education is more likely to experience gastritis. In contrast to research conducted by Tussakinah et al. found most of the incidence of gastritis occurred in elementary and high school education (62.2%) [7].

Based on the results of this study, it was found that most of the jobs as private employees were 24 people (61.5%). The results of this study are in line with research which shows that most of the respondents who suffer from gastritis have jobs as private employees as many as 64 people (52.5%). A work environment in which an active activity is carried out by a person will get more rewards [15].

Based on the results of research that has been conducted in Banjar Pemijian Sangeh shows that most of the respondents aged 16-25 years with good eating and drinking habits with a percentage of 79.50% as many as 31 people. The results of this study are in line with research which shows that most of those aged 17-36 years with good eating and drinking habits can also suffer from gastritis. Diet is a persistent habit of consuming food based on the type of food ingredient and its frequency [16].

The results of this study indicate that most of the respondents aged 16-25 years with good smoking behavior with a percentage of 59.0% as many as 23 people. The results of this study are in line with research which showed that patients with good smoking behavior could suffer from gastritis [7]. Cigarettes are very influential in the digestive tract which can weaken the esophageal valve, alter the natural conditions in the stomach and lower the pH of the duodenum [17].

Based on the results of the study, the subjects showed most of the patients aged 16-25 years with good physical activity with a percentage of 79.50% as many as 31 people. The results of this study are in line with research which shows that patients who have good physical activity can have gastritis. Good activity can cause patients to delay eating which can cause patients to experience gastritis [18].

Based on the results of this study, it was found that most of the patients aged 16-25 years with good stress levels with a percentage of 79.50% were 31 people. The results of this study are in line with research which showed that the incidence of gastritis was higher in patients who had good stress levels. Prolonged stress is one of the triggering factors that has an impact on increasing stomach acid production [19].

V. CONCLUSIONS

Based on the results of the study, it can be concluded that the lifestyle in gastritis patients in Banjar Pemijian Sangeh showed that most of the respondents with good eating and drinking habits (79.50%) 31 people, according to smoking behavior most of the respondents with good smoking behavior (59.0%) 23 people, according to physical activity showed most respondents with good physical activity (79.50%) 31 people, according to stress level showed most of them with good stress level (79.50%) 31 people.

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CONFLICT OF INTEREST

The author declared that don't have conflict of interest

ETHICAL CLEARANCE

This research has received ethical approval from the Research Ethics Committee, Denpasar Health Polytechnic No.LB.02.03/FA/KEPK/0125/2021.

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Analyses of an Effective Leadership Strategy in Early Childhood Education in Developing Countries: From a Recipient to an Actor



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ABSTRACT: In the analysis of this paper the authors investigate a leadership model that can facilitate effectiveness in the early childhood education (ECE) in developing regions, including Africa. Leadership components that indicate multilevel collaboration among stakeholders appear to hold huge advantages ensuring the success of the early years education. Distributed leadership emerged in literature as a leadership model that is increasingly becoming popular in the 21st century as a means to engage, motivate and empower stakeholders in education to share roles in leadership in concert with the school head to ensure the development of the ECE. The attention drawn to distributed leadership is because it seems to enable a movement from the traditional ways where leadership resides in an individual acting as a lone school leader to a practice that allows teachers, parents and even children to actively participate in decision making and influencing positive changes at school. Such a leadership pattern is also preferable as it seems to be flexible in its application to reflect context.

KEYWORDS: distributed leadership, early childhood education, school, participant empowerment, developing countries.

INTRODUCTION

A distributed leadership (Harris, 2008; Halttunen, 2016) model has effect to stimulate engagement, motivation, participation and empowerment among school administrators, teachers, parents and children in early childhood education (ECE) in developing countries (DCs). ECE is getting an increasing recognition as a basis for primary education for children in parts of Africa (Mwamwenda, 2014). The entry age for children into this form of education varies across countries within the continent. A cross country assessment conducted by Mwamwenda (2014) about the entry qualification particularly in Africa indicates that children within the age range of 2-6 years are eligible to start ECE, prior to primary education. As such, the field of distributed leadership in the 21st century draws attention to the efforts in education to ensure the implementation of a leadership pattern that can motivate all stakeholders to commit to a shared vision in ECE. The concept of 'shared vision' appears emphatic within the discourse of DL and suggests the collective efforts of all concerned towards achieving a common goal in school. It is a feature that is connected to a new leadership direction which has clearly appeared in the works of Harris (2008), Goksoy (2015), Halttunen (2016), Dampson, Havor & Laryea (2018) and McGuinness & Taysum (2020) as 'distributed leadership' (DL).

Distributed leadership is gaining more and more popularity as a leadership style within the realm of educational administration and management in different contexts including DCs and it is about effective use of school resources to enhance the school. This leadership style is the focus of this paper and its examination herein is in terms of how effective it is in developing ECE in DCs. Over the years, school leadership has always assumed a top down approach (Harris, 2008) as against an 'all hands on the deck' procedure. Such an approach illustrates a situation in which one person occupies the position of leader as a school administrator or head, initiates, takes major decisions about the school and tries to inspire others – in the kind of a leader and follower relationship - to implement such decision, sometimes unchallenged. It is a leadership practice that is seemingly authoritarian, vesting huge power in an individual in the school. With the development of the ECE, such a boss-like and hierarchical structure in school leadership practices appears to be uninviting not guaranteeing the engagement of the diverse people in school in

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collaborative work to ensure school improvement and positive outcomes in the children. Muijs & Harris (2007) stated that the school head does not have all the knowledge about school leadership.

That is because, in the view of Camburn, Rowan & Taylor (2003), elementary schools are not led by a single school administrator, but by a group of people. Allowing different people to participate in leadership makes the work easy. Also, it creates opportunities for those given the chance to take part in leadership to exchange ideas in ways that might benefit children and the school in general. According to (Dampson, Havor & Laryea (2018), educators in ECE are likely to face issues of absenteeism, exclusion, marginalization, disengagement, dropout, dissatisfaction and teamwork (Dampson, Havor & Laryea (2018) that involves all stakeholders as necessary to surmount these challenges at school. The organizational environment in a school is too complicated for an individual or team to handle independently (O'Connor & Day, 2007). Impliedly, a supportive and interdependent work among school personnel who are participating in leadership are critical to easing workload and pressure that may occur in ECE.

Recent literatures, for example Spillane (2005), Harris (2008) and Heikka, Waniganayake & Hujala (2012) in the field of educational management are concentrating on patterns of leadership that promote shared responsibility and authority among the different people in ECE. However, according to Halttunen (2016), the first significant change in leadership arrangements occurred in the 1980s in the United States of America (USA) at the time school heads were providing educational services for children in day care centres. Later on, in the 1990s small day care centres merged with the large ones to mark the beginning of multi-unit organizations in day care (Vartiainen, Kokko & Hakonen, 2004). The merger in organizational units led to increased effects on leadership. Both head of the school and other staff members co-construct and share responsibilities in a distributed kind of leadership (Shamir, 2007; Halttunen, 2016) perhaps as a means to enhance the experiences children get in early years education (EYE).

Drawing from the US situation, interests in distributed leadership by educators has witnessed some increase and this appears to highlight its importance as a means to demonstrate qualities of a good leader and/or as a new and better alternative to traditional leadership patterns in ECE within DCs (Smith, 2017; cf. McGuinness & Taysum (2020). Shava and Tlou (2018) argued that DL was conceived as a framework for analysing school leadership in different contexts. Such analyses is in terms of the roles members of school play, the relationship they exercise among themselves in the course of executing assigned tasks in leadership and the effect of that on teacher professionalism and children's performances at school.

THE NOTION OF DISTRIBUTED LEADERSHIP IN ECE

A significant amount of literature on distributed leadership concentrates mostly on school-based leadership (Heikka, Waniganayake & Hujala, 2012). Such analyses about DL from the perspective of what the school leader does are documented in Camburn et al. (2003), MacBeath (2005), Firestone & Martinez (2007), Leithwood, Mascall, Strauss, Sacks, Memon & Yashkina (2007) and Spillane, Camburn & Pareja (2007). Defining distributed leadership within the context of early childhood education tends to be problematic. Literature on distributed leadership assumedly focuses more on how it operates in primary and secondary schools and less in early childhood education. In some sense that might be attributed to the thinking that the ECE, as pre-primary education, is relatively new and perhaps has yet to take firm roots in educational cultures across DCs. Understanding DL in that sense thus becomes somewhat challenging. The understanding of it can be achieved from the point of view of the way it is being applied in school in general. A consensus about the precise meaning of distributed leadership is difficult to achieve. Investigations about the concept are still on-going in the realm of education. Authors, researchers and educators conceptualise the idea based on the outcome of their inquiries and observations.

Different nuances therefore feature in the attempts to find a general definition of the concept. In his article entitled *the new work of educational leaders* Gronn (2002) terms it as distributed leadership. Gastil (1997) and Woods (2004) see it as being a democratic form of leadership. Pearce (2004) makes attempt to simplify the term as shared leadership. According to Wallace (2002), it is an approach of leadership that is collaborative. MacBeath, Oduro & Waterhouse (2014) stated that distributed leadership shares similar meanings with dispersed, shared, collaborative and democratic leadership. On the other hand, Day, Harris, Hadfield, Tolley & Beresford (2000) prefer to use it interchangeably with shared leadership, democratic and the likes. The concept might be defined within the context of the ECE as a collaborative method of leadership that guarantees shared vision among participants towards enhancing the education of preschoolers. Along this line, distributed leadership is used in this paper synonymously with shared vision, participation, collaboration and democracy. While authors make efforts to provide definition of the term in different forms, the following meanings can be deciphered from their viewpoints about DL: interaction, interdependence of individuals and devolution of power at school. As mentioned earlier distributed leadership enables interdependent interactions among the school head, teachers, parents and children in the school.

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Understandably, distributed leadership does not make everybody in school a leader, to lead or to make the team bossless. Writing the topic: *distributed leadership: according to the evidence*, Harris (2008) posit that since leadership to a certain level is distributed, many people within the school would have the opportunity to contribute to facilitate, orchestrate and support the decision to change and improve the school. It means that all forms of leadership might be distributed at some points, but power sharing is the hallmark of a distributed kind of leadership. Within the frame of the DL, a considerable number of the people in school might not stay at the periphery of school effectiveness efforts, but contribute by actively participating at the centre in discussions and sharing ideas and seeing that such ideas make a difference in school improvement and effectiveness. Contributing to the issue, Shava & Tlou (2018) expressed the view that this method implicitly changes, challenges or ignores the traditional leadership strategy which projects an individual as a hero leader in schools in DCs.

Also, it is antithetical to the laissez faire model that permits nonchalance among members performing leadership roles in school. School leadership regarding ECE goes beyond exercising individualistic knowledge, skills (Baloğlu, 2011) authority and power. It is a leveling of hierarchical power where both positional leaders (e.g. school heads, principals, supervisors etc) and teachers can teach together in the same environment.

Distributed leadership is a 'catch-all term' embracing relevant features of other methods of school leadership such as democratic leadership, transactional leadership, instructional leadership (Harris & Chapman, 2002; Leithwood, Day, Sammons, Harris & Hopkins,

2006a; Hargreaves & Fink, 2006), thus promote engagement and empowerment. It shifts away in practice from each of the other leadership models mentioned above as it emphasizes teamwork among the participants to ensure school effectiveness.

DISTRIBUTED LEADERSHIP AS AN EFFECTIVE LEADERSHIP PROCEDURE IN ECE

DL holds advantages in many ways in ECE. Not only the school head, but all participants in ECE e.g. teachers, support staff and parents, hold some power to enact selfmanagement (Clarkin-Phillips, 2009; Spillane, Halverson & Diamond, 2004) within the distributed leadership practice. Children's outcomes might improve due to positive effects of distributed leadership on staff motivation and performance (Hughes, Berryman & Sheen, 2014) as the leadership procedure offers opportunity for them to contribute to school improvement initiatives. Also, staff members at school have a degree of agency, control and autonomy (Woods et al., 2004) within the distributed leadership structure and they are given the capacity within the institution to take initiatives independently (Woods & Gronn, 2009).

The concept of school effectiveness in relation to ECE connects instructional leadership (IL) (Mayrowetz, 2008) which is about activities in leadership that impact the way pupils learn (Hallinger, 2003). School administrators who work within this structure provide opportunity for innovation among teachers. As such the teacher enjoys certain level of power to transform classroom instruction. By giving a firm application of that in the early childhood setting, it means distributing roles to support and transform pedagogical tasks and processes (Heikka et al., 2012). Distributed leadership implicitly does not only link instructional leadership, it motivates IL. Better instructional leadership occurs as an effect of distributed leadership because the teacher and learner interact in a manner where both of them have the chance to build trustworthy partnerships to co-create knowledge and criticise teaching and learning.

Knowledge and learning in the early childhood education environment thrives through a distribution of roles in the organization (Ebbeck & Waniganayake, 2003). That is because distributed leadership favours organizational position that is based on collaboration and cooperation in a group instead of the one that demonstrates a 'leader' and 'follower' model (Gronn, 2000, 2002a; Timperley, 2005; Mayrowetz, 2008; Woods & Gronn, 2009). Leadership is leveled rather than being vertical and vested in an individual. Such a leadership practice does not imply absence of a lead/principal leader or makes those in central leadership position redundant. It only requires hard work on the person holding the central leader position and cooperation from others to ensure effective supervision and coordination of the activities of other members in a distributed leadership (Harris, 2008).

Operating leadership in this pattern in the early childhood setting is likely to give teachers agency to act, even in emergencies because they could apply personal discretion to address issues. Members do not have to wait for directions as it is the usual practice in a traditional leadership model; they use their discretions justifiably to act to address children's needs. For this to happen it suggests that there is an existence of a strong relationship built on trust, confidence, professionalism and expertise among participants to handle situations. In a related work to distributed leadership, Dinham (2005b, p.343) stated that where exceptional educational outcomes occur, the leadership – school head, other school management staff and teachers, influenced children's outcomes through: A central focus on pupils and their learning; teacher learning, responsibility, trust; external awareness,

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engagement; bias towards innovation, action; pupil support, common purpose and collaboration; personal qualities and relationships; vision, expectations, culture of success.

With such an organizational climate and condition created, both teachers and children take control of what they are learning and how they are learning it. Hulpia, Devos & Rosseel (2009) conducted a study on the in which they investigated the connection between DL and teacher commitment to the organization. Their research revealed that teachers showed more commitment to work when school leaders were accessible and encouraging them to participate in decision making. In regards to the learners, Sillins &

Mulford (2002) pointed that children's outcomes are likely to improve when leadership is distributed among members of the school community and when teachers feel they are being empowered to address issues they consider to be vital in the school (Shava & Tlou, 2018). Day, Sammons, Hopkins, Harris, Leithwood, Gu., Penlington, Methton & Kingston (2007) share a similar perspective with Sillins & Mulford.

DL helps to change the didactic practices and ensures the teachers take ownership of their teaching and professional learning, children provide feedbacks of their experiences at school and criticize teacher work, parents make contributions and are motivated to partner with teachers to enhance learning for children, and also there are opportunities for mutual support at school. This situation is in some ways akin to democratic practices in school because it signifies respect for the worth of the individuals and his or her opinions, representation in leadership, participation of all in decision making. According to Woods (2004, pp.441), it is the 'additional dynamics which is the product of conjoint activity - where people work together in such a way that they pool their initiatives and expertise' the result is a product, or energy which is greater than the sum of their individual action. Shava & Tlou (2018) shares a similar view on the issue as Woods (2004).

It is implicit that leadership models that support a top down flow of ideas are not workable, or are impotent to produce the desired results in ECE. Rather than just staying at the receiving end, others can also contribute initiatives to enhance leadership to benefit ECE. When distributed leadership is effective in the early years environment, individual teachers in the school become more accountable and responsible for their instructional functions and performances and the school executives structure take responsibility for their leadership roles. In the opinion of Tian, Risku, & Collin (2016) there is also a positive impact on children's experiences at school as they are likely to self-determine to fulfill learning goals. DL members learn from one another and where there are problems, the solutions are easily possible and diverse unlike what occurs in an individualistic leadership practice.

BARRIERS OF DISTRIBUTED LEADERSHIP IN ECE IN DCs

Distributed leadership as a school leadership strategy is still evolving (Heikka, Waniganayake & Hujala, 2012) in DCs. Discussions and active research regarding this leadership style in early childhood education are only coming to the fore recently in literature (Ebbeck & Waniganayake, 2003; Muijs, Aubrey, Harris & Briggs, 2004; Rodd, 2006; Aubrey, 2007; Fasoli, Scrivens & Woodrow, 2007) to influence leadership practices in ECE in the developing societies. Consequently, there is an assumed misconception among school administrators, teachers, parents and children about the subject in the context. Such misconceptions seem to emanate from a lack of clear approach to define DL (Shava & Tlou, 2018) and its role in ECE within DC. There is a belief among researchers and educators that the concept applies more in theory than in practice (Harris, 2008; Shava & Tlou, 2018). As such, distributing leadership throughout the school community in the early childhood setting tends to be quite challenging. It is likely some educators in DCs are used to traditional leadership structures where authority flows from the top to the bottom and it is problematic to them to adjust to the DL as the top down method of leading is perhaps a reflection of the larger leadership practices in local communities in the context. More so, provisions in national education policies do not seem to support DL. This might reduce the chances of making DL a legitimate leadership practice in ECE in the context.

Many school heads would rather prefer to hold onto power than to distribute it to subordinates so as to preserve their authority (Shava & Tlou, 2018) in the DCs. For instance, buttressing this further from the point of view of the autocratic factors that inhibit DL in the African context, Grant (2006) stated that African school leaders are more likely to apply authoritarian practices linked to ethnicity, gender biases and culture. Such sense of insecurity would create tensions in the school heads and some headmasters/mistresses can become suspicious that sharing leadership responsibilities and roles with teachers is capable of creating situations for teachers to see their inefficiencies, to overthrow them, hold them in contempt or make them become redundant heads (Sund & Lines, 2017). Understandably, it raises concerns about issues of respect, loyalty and patriotism among participants in DL. Also, the solo leader would resist any leadership practice or idea that would change the status quo as that can deskill him or her in favour of the subordinates.

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Also, opponents of distributed leadership express fear that distributing leadership is a risky venture as doing so might result in distributing incompetence (Timperley, 2005). Participants in the distributed leadership structure might lack the skills and knowledge to practice especially when the goals of the school are not properly communicated and coordinated (Mayrowetz, 2008). Members of the distributed leadership including teachers and parents might misunderstand the practice as asking them to take the destinies of the children and the school in their hands. More so, there are seemingly no clear cut policy provisions, particularly within developing societies, either at the national or school level to ensure devolution of leadership in the early years education. This suggests that policymakers are vague about conceptualizing DL in policy and how such a policy provision on distributed leadership can affect ECE in developing countries.

Teachers might feel worried about the expectations placed on them by the headmaster/mistress, and even colleagues, when they are assigned leadership roles (Shava & Tlou, 2018). Others would feel overstressed to be made to perform active roles in leadership as their pedagogical functions in early years already presents a huge task to them (Mayrowetz, 2008). The concern of parents and school heads seems to be more about effective teaching and helping children to produce positive outcomes in learning than on leadership. As a result parents might sometimes exhibit indifference to leadership practices issues at school and how leadership activities impact children's education.

Requiring teachers to engage in shared decision making in addition to their traditional roles of teaching at school saps their energies, consumes their time and disturbs their comfort. Structural and cultural barriers exist within schools, including the early childhood ones, and that could pose a challenge for some teachers to demonstrate leadership (Shava & Tlou, 2018). For instance, some young teachers could find it difficult to express their views especially when such opinions are opposed to those held by the veteran teachers or dominant others within the early years community. Some teachers are likely to be socially withdrawn and averse to team work. So, distributing leadership might disadvantage their inclination to solitary activity and an infringement on their right to privacy. Given these circumstances, the notion of distributing leadership can be a mere rhetoric in ECE. In emergency situations, particularly the current COVID-19 pandemic, social distancing is advised and that is a limitation to the concept of collaboration in DL. Leadership practices, such as the authoritarian type, that encourage solo roles in school leadership might become more dominant in practice than the distributed leadership as means to help curb the spread of the disease.

When DL works as a distributed property (Harris, 2008) bottlenecks are likely to occur in administrative duties. Leadership that allows authority to reside in one person in a top down manner tends to facilitate a quicker administrative functioning among members of the organization. Apart from that, early years education reflects an environment where the concern is more about play, good health and effective learning involving children; not essentially leadership. Discussions about DL are not very important to them except for the adults who work there. Although DL is being advanced as a good leadership model, Harris, Leithwood, Day, Sammon & Hopkins (2007) and Shava & Tlou (2018, p. 284) pointed that 'a lot depends on the quality of distributing leadership as well as on the method and purpose of its distribution' within the ECE setting.

DISTRIBUTED LEADERSHIP: IMPLICATIONS FOR PRACTICE IN THE ECE IN DCs

Early childhood education reflects a setting where education is provided for children in day cares. Implicitly, leadership has to devolve roles in such a way that empowers teachers and parents to work cooperatively so as to generate positive outcomes in learning among the children in the developing regions (Sammon & Hopkins, 2007; Harris, 2008; Shava & Tlou, 2018). Firstly, the people who perform key roles in the ECE have to critically analyse the research and policy on distributed leadership to be able to understand its implication in practice. Secondly, the educators need to develop a mechanism that encourages mutual support among participants of DL.

As the school as an organization becomes collaborative and participative, it allows for the mobilisation of expertise across the different levels where leadership occurs to change or avoid authoritarian practices (Harris, 2012) – a characteristic of leadership styles that invests authority in one person. Headmasters/mistresses are no longer expected to perform leadership roles and management of the school on their own (Botha & Triegaardt, 2015) but to share roles so that the subordinates can also make inputs to enhance decision-making to improve early child care education in DCs. Also, teachers are no longer expected to concentrate their resources only on teaching, but also to serve as partners with the head masters/mistresses in school leadership. Parents are not to stay aloof and allow the work of educating their children only in the hands of school personnel. Pieces of advice, suggestions and criticisms from parents are necessary to further expand collaboration in distributed leadership to benefit the children. Efforts from different sources serve as a pragmatic tool where leaders distribute the workloads (Tiana et al, 2016) of leadership and instruction that are likely to arise from children's needs at school.

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Such an 'all hands on deck' practice plays a significant role in predicting teacher devotion to help develop the whole school (Hulpia, Devos & Van Keer, 2010). The school has to provide the rationale based within the institution and insist on the rights, freedom and agency of all connected to the school to take part in decision making (Woods, 2005; Williams, 2011), create a democratic environment for and commit to the situation where all role players can speak truth to power. Furthermore, it proposes a collective harnessing of human and financial resources available to be able to deal with the problems linked to the practice of DL in ECE. The central purpose of the collaborative effort, in the words of Williams (2011) is to provide opportunities for developing leadership in ways that will empower all educators to evolve, enhance and broaden knowledge and skills in a focused and intensive manner required for building teaching and learning communities for a diverse learner population in the early years school.

What that means is that collaboration has to enable the role players to engage in a collective practice of sharing and solving problems. In societies where DL tends to be a novel concept of leadership in ECE, the stakeholders there require certain amount of patience and perseverance allowing the role players substantial time and space to learn from possible errors, make amends to reflect purpose and context.

CONCLUSION

Distributed leadership appears as a preferred approach for an effective early childhood education. The undertaking of distributed leadership in ECE encourages, engages and empowers those involved in this leadership structure to collaborate in decision making aimed at professional development, school development and production of positive outcomes in the children. In an educational environment that has a diverse population as the ECE, distributed leadership shifts the burden of administering and managing school resources from a solo leader by sharing leadership roles and authority among key stakeholders in a bid to optimise performance in the education of children, growth of the school and career progress of the educators. It is a leadership perspective that motivates the various stakeholders to make huge commitment in and take responsibility to develop the education of children in the early years settings. DL is understandably not a one-fit-all leadership strategy that can apply in all contexts. Since the concept is still evolving, caution is required in its implementation, taking into consideration the socio-cultural context surrounding the ECE and perspective of those theorizing this leadership model for schools. It is advisable to set goals and specify functions of the role players as standard for operating DL as a school leadership method within context.

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Determinants of Health Facilities Influencing Utilization of Free Maternity Services Among Women of Reproductive Age 15-49 Years Attending Health Facilities in Homa-Bay County



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ABSTRACT: Free maternity services is the offering of medical and obstetric care to pregnant women without any financial cost. Complications related to pregnancy were a major reproductive health problem that lead to disability and increased maternal deaths. Free maternity was introduced in Kenya in 2013 with a focus of achieving 100% utilization of the service and reducing high mortality rate. Homa-Bay County had a low percentage of 54% deliveries taking place in health facilities within the county. The main objective of this study was to establish Determinants of Health facilities Influencing Utilization of Free Maternity Services among Women of Reproductive Age 15-49 Years Attending Health Facilities in Homa-Bay County. Descriptive cross-sectional study design was applied to establish the main objective of this study. A probability and non-probability sampling techniques was used to select 420 respondents. The study utilized quantitative and qualitative methods of data collection. Data analysis was conducted with aid of Statistical Package for Social Scientists (SPSS) version 23. Analysis methods used were; factor analysis and regression analyses methods for quantitative data to determine the relationship and associations among the variables. Qualitative data was analyzed through content analysis by conducting thematic analysis. A total of 396 that was 94% response rate established 54% (213/396) mothers were interviewed and were aged between 20 years and 29years. Results showed that; age of the mothers was insignificant in utilization of free maternity services. Further analysis using logistics regression revealed that the respondents who agreed with the need for a well-equipped health facility with good sanitation system were 63% (OR 0.37, p = 0.03) more likely to reuse FMS. Distance was insignificant in utilization as long as the facility was well-equipped and adequately staffed as 57% (228/396). This study concluded that there was significant association between staff respect, and honesty of the staff with utilization of free maternity service. This study recommended that the County Government of Homa-Bay should increase awareness to women of reproductive age at the community level about FMS through Community health promotion officers in order to improve FMS uptake in Homa-Bay County.

KEY WORDS: Determinants, Homa bay County, Kenya, Maternity services, Reproductive age.

INTRODUCTION

1.1 Introduction

Free maternity services is the offering of medical and obstetric care to pregnant women without any financial cost. Maternity services starts from onset of pregnancy till delivery and include maternal and child health clinic, delivery and postnatal care till six weeks after delivery. The nature and administration of free maternity services has influence on utilization of maternal care. There is disparity in utilization of this health service. According to Washington DC, (2011), health disparity is the differences that exists between one group relative to another in terms of burden of illness, injury, disability, mortality or utilization of health services such as maternal health services. Maternal and childbirth mortality is one of the indicators of health status of any given population globally. It is of interest that most maternal deaths can be prevented, given proper medical attention surveillance and interventions. Using maternal health facility care services is an effective approach in reducing maternal morbidity and mortality in poor women health status (Gage, 2003; WHO, 2017).

Free maternity programme was introduced to all publicly funded health facilities on 1st June 2013. The programme provided free healthcare services, giving pregnant women access to comprehensive maternity care though with some exceptions. This programme was expected would lead to increased access to maternity services at all levels of the Kenya public health

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system. In addition, the programme would release the much-needed finances that can be directly used to improve and expand maternal and new-born services, and thus impact on related outcomes, leading to the attainment of MDG 3, MDG 4 and MDG 5. Under the SDG 2016 - 2030, UHC is also a new target, which provides an overall framework for the implementation of a broad and ambitious agenda in all countries (NHIF, 2018).

The Ministry of Health's Free Maternity Service (FMS) was transferred in April 2017 to the NHIF under the brand name 'Linda Mama: *Boresha Jamii*'. Phase 1 was launched in April 2017 starting with the faith-based and private sectors; from July 2017, under Phase 2, the public sector was added. From March 2018, Linda Mama introduced Phase 3 to include antenatal care (ANC) and post-natal care (PNC). For all Linda Mama services, benefits were 'portable' such as mothers do not need to receive services from the same provider/site. It was estimated that 502 'low cost' private and faith-based facilities were contracted while approximately 4,000 public sector facilities nationally were reported to be accredited as part of the scheme (NHIF, 2018)

NHIF accreditation to offer *Linda Mama* Services was simple for public health facilities and entailed a written request by the County Director of Health to the NHIF branch office, listing the public health facilities to be included. For private providers, they must be registered with the NHIF and comply with various norms and standards. (Appleford *et al.*, 2018)

Table 1. 1: Linda Mama Tariffs

Facility level	Normal delivery	Caesarean section	ANC (per visit)	PNC (per visit)
Level 2 and 3 (private health centres, dispensaries)	Ksh 3,500	N/A	1 st visit = Ksh 1,000 2 nd - 4 th visits = Ksh 500	1 st - 4 th visits = Ksh 250
Level 2 and 3 (public health centres, dispensaries)	Ksh 2,500	N/A	1 st visit = Ksh 600 2 nd - 4 th visits = Ksh 300	1 st - 4 th visits = Ksh 250
Level 4 (private hospitals)	Ksh 6,000	Ksh 17,000	1 st visit = Ksh 1,000 2 nd - 4 th visits = Ksh 500	1 st - 4 th visits = Ksh 250
Level 4 and 5 (public hospitals)	Ksh 5,000	Ksh 5,000	1 st visit = Ksh 600 2 nd - 4 th visits = Ksh 300	1 st - 4 th visits = Ksh 250

The table 1.1 above shows the reimbursement rates for free maternity services in health facilities in Kenya.

Maternal health is a global issue which oversees the prospects of people in life depending on the wellbeing of mothers and women. Many women have died out of pregnancy related causes and this has led to efforts of governments and various institutions taking up initiatives to reduce maternal mortality rates (WHO, 2017). Worldwide more women of reproductive age and children of less than five years die each year from pregnancy complicated related issues and poor services delivery and antenatal care. Globally maternal mortality varies significantly across countries and this makes it unevenly distributed. Approximately 80% of maternal deaths globally are caused by hemorrhage, sepsis, unsafe induced abortion, hypertensive disorder of pregnancy and obstructed labor (WHO, 2005; WHO, 2017). Over 500,000 women die from pregnancy and child birth each year while approximately 1,600 women die every day due to pregnancy related complications (WHO, 2017).

Developing countries contributes to 99% of maternal deaths, with sub-Sahara Africa having the highest ratio 689 per 100000 live births (World Bank, 1994). Due to this high rate maternal, mortality as become focal point of international priority for women right, with estimate of over 585 000 women dying each year from pregnancy related issues. Proper utilization of maternal services may help reduce the figures to up to 50%, as this allows doctors and midwives to manage potential health problems throughout the course of pregnancy (UNICEF, 2017).

Women living in sub-Sahara Africa, have a higher risk of dying than in developed countries (UNFPA, 2015). In Africa most countries took initiative of removing user fee so as to achieve goal 4 and 5 of Millennium Development Goals. That is to reduce child mortality and improve maternal health respectively. In Burundi free maternal services was introduced were for rural districts in 2006, in the same year, Burkina Faso on 80% subsidy for delivery were launched (Witter *et al.*, 2016). Many other countries also introduced user free services (Meessen *et al.*, 2011). According to (GoE., 2010), Ethiopia is one of the sub-Saharan country experiencing high mortality rate of up to 676 deaths per 100,000 live births. About 400,000 suffer long term disabilities due to complications during pregnancy period and lack of utilization of maternity services, despite availability of free maternity services in the country. It was

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found that most of deliveries were assisted by relatives or unskilled personnel. High levels of maternal mortality and morbidity can be prevented in developing countries through the use of skilled birth attendants and resources required for effective implementation of standard maternal health services (Kenneth O, 2014).

Kenya is one of the ten countries comprising 58 percent of global maternal deaths in most areas the services do not exist and where they do exist they are underutilized (WHO, 2017). In Kenya, 39% of women deliver outside hospital facility despite of action taken by the government of Kenya in June, 1, 2013 to address maternal problem by initiating free maternal services in all public hospitals. This could be due to poor referral and linkage system and the quality of the free maternity service as perceived among women on utilization of health facilities, MOH (2015).

Utilization of maternal services in developing countries to be constrained due to various culture and demographic factors. Most women also die due to poor health at conception that is antenatal care delivery and up to postnatal care which are very crucial to both the mother and the child APHRC (2009). Most women were unable to at access these services due to the cost that was being applied at the facilities in any given services. With introduction of free maternity we find that women of child bearing age are not only eligible to delivery service but also entitled to continuous eligibility (KNBS & ICF-International, 2015).

Over the last decade the Maternal Mortality Ratio (MMR) has statistically remained almost the same despite dropping from 590 in the 90s to 488 in 2008/09, and now the latest 362 per 100,000 live births in 2014. While the decline in national average MMR appears impressive, the regional disparities show gaping inequalities. Between 5,000 and 7,000 women die every year due to complications during pregnancy or related to childbirth. In Kenya (2014), 15 out of 47 counties accounted for 98.7 % of the total maternal. The national MMR estimate obscures disparities between counties, with the MMR ranging from 187 deaths per 100,000 live births in Elgeyo Marakwet County to 3,795 deaths per 100,000 live births in Mandera County (UNFPA, 2015). The high MMR in selected counties is a reflection of major supply and demand gaps and challenges in health service coverage, which result in continued disparities among counties, between urban and rural residents, and among different population groups. Coverage and utilization indicators show some more needs to be done to address inequities and to reach universal health care. The 2013 Service Availability and Readiness Assessment Mapping Report established that services defined within the Kenya Essential Package for Health availability status stands at 41%, with only 7% of facilities being able to offer all the services (MOH, 2015).

Problem statement

In Homa-Bay County skilled delivery was at 54% with a maternal mortality rate of 583/100000 (DHIS, 2019). This county was classified among the 15 high burden counties in terms of maternal mortality in Kenya (UNFPA, 2015). Many lives were lost as a result of underutilization of free maternity services. Treatment delays, misdiagnosis, ineffective management and lack of preventive measures for hemorrhage led to more than 90% of preventable maternal morbidity and mortality (Eileen *et al.*, 2019). Homa-bay County had 309 health facilities whereby; all public health facilities were expected to be providing free maternal services and 80% of private health facilities within the county are also providing free maternal services. Skilled deliveries were 44,270 against a target of 141,737 from June to December 2018 which points the underutilization of free maternity services and high maternal and neonatal mortalities, with 46% of births conducted outside the health facilities in Homa-Bay County (DHIS, 2019).

Broad/ Main Objective

To establish Determinants of Health Facilities Capacity Influencing Utilization of Free Maternity Services among Women of Reproductive age 15-49 Years Attending Health Facilities in Homa Bay County

Specific Objectives

1. To identify accessibility determinants of health facility and linkage influencing Utilization of Free Maternity Services among Women of Reproductive age 15-49 Years Attending Health Facilities in Homa Bay County.
2. To establish availability of physical infrastructure determinants influencing Utilization of Free Maternity Services among Women of Reproductive age 15-49 Years Attending Health Facilities in Homa Bay County.
3. To determine availability of medical equipment and supplies influencing Utilization of Free Maternity Services among Women of Reproductive age 15-49 Years Attending Health Facilities in Homa Bay County.
4. To establish privacy and confidentiality determinants influencing Utilization of Free Maternity Services among Women of Reproductive age 15-49 Years Attending Health Facilities in Homa Bay County.

Health facility capacity determinants of utilization of free maternity services

Healthcare financing is considered as a means of improving the accessibility and affordability of healthcare, quality of life and sustaining economic growth in a country. Craigwell *et al.*, (2012), identified that effectiveness of government expenditure on

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health care in the Caribbean identified health expenditure having a significant positive effect on health status and it was reported to reduce maternal mortality rates. Unavailable, inaccessible, unaffordable or poor quality care was primarily accountable for high maternal deaths. Financing households to improve their healthcare service seeking can also improve health of the community and in so doing reduce maternal mortality rates. According to Abekah-Nkrumah *et al.*, (2011), improved access to micro-finance by women, combined with education may enhance maternal health service uptake and hence reduce cases of maternal and infant deaths.

Kenyan public health facilities have long suffered from insufficient infrastructure and equipment (Mokua, 2014). Increasing the budget line for health care is absolutely essential in order to strengthen health systems and ensure there is sufficient infrastructure, equipment, and staff to implement universal free maternal health care effectively (Nicole, 2013). Recent survey data found that only 36% of public health facilities offering delivery services had all the basic delivery room infrastructure and equipment needed; rural areas and lower level facilities were particularly unequipped (Tororei, 2012). Shortage of supplies is cited as one of the challenges of free maternity services utilization. The shortage of supplies was occasioned by underfunding of the free maternity policy (Ride, 2012). The shortage of supplies can adversely undermine the implementation of the policy. Health workers perceived the drastic decline in service utilization after seven months of exemption to be a consequence of the shortages in additional drugs and other supplies (Burnham *et al.*, 2004).

Drugs supply shortages, especially particular types of drugs may be either negatively or positively related to demand for medical care. According to Mwabu *et al.*, (1993), when the drugs are available, the demand increases. On the other hand, increase in income was also found out to affect demand for medical care positively, with a shift from informal health care to formal healthcare where majority of these end up at private or mission health facilities. User fees and distance reduce demand for healthcare though insignificantly.

Community participation is core component in Primary Health Care as it involves community to attain a sustainable and effective health programs with maternity and child health being one of the elements of PHC. CHWs improve access to and increase utilization of PHC, reduce cost of care, improve quality of care and reduce health disparities. They achieve this goals by serving as bridge between clients in need and needed health care and human services. In North India neonatal mortality rate reduced by 25% after 2 years of introducing CHWs and trained in newborn care, identification and special care of at risk infants and referral to health facilities when appropriate, (Prasad and Mureleedhoran, 2010). In Guatemala, the infant mortality rate declined with 85% when an immediate evidence based treatment of infants began in the community with accompanied referral to a nearby hospital (Wangalwa *et al.*, 2012)

Behavioral Model on Health care service utilization

Behavioral model majorly focuses on non-cognitive factors motivating or leading to health-seeking (Phillips *et al.*, 1998). The process of health care service utilization is put into a contextual situation, such as in the context of socioeconomic aspects. The model was proposed by Anderson, (1968) and used in the works of Pokhrel and Sauerborn, (2004). The model has three aspects which include: predisposing factors (such as age, sex occupation, education); enabling factors (such as income, household materials); and need factors (such as perception of illness and service indicators). Pokhrel and Sauerborn, (2004) states that this behavioral model is based on determinants that affect decision-making and take into account economic circumstance, distances to travel, level of education, individual satisfaction based on previous services utilized and perceived quality of services. Other factors such as cultural, social, organizational, environmental, geographic and economic aspects that appear to affect peoples' health and at times are seen as the prerogative of the studies, Prosser (2007). Decisions regarding healthcare utilization should consider individual level, household level and health systems level characteristics (Pokhrel and Sauerborn, 2004).

According to Solomon, (2005), prompts for health seeking and health service use are determined by social, cultural, political and economic factors as seen by the individual and as defined by the community. Free maternal health care services utilization by pregnant women involve a kind of analysis of health care use, leading to recognition of the importance of the social determinants of health.

Pathway Theories on utilization of free maternity services

These are theories that seek to explain various steps taken by people in relation to their health and the determinants or factors that affect these pathways and lead to actual service use of health care services. According to Mackian *et al.*, (2004) psychological theory considers motivating forces by focusing on the idea of decision-making in seeking for health or utilizing of a particular health care service say Antenatal care or hospital delivery through perceptions and evaluating the cost-benefit of actions in relation to these services. Kroeger, (1983) states that explanatory theory is aligned on the labelling of particular signs and

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symptoms of an illness and the interpretation of these in a decision-making process based upon experience. According to Olenja (2003), utilization of healthcare services such as free maternity services can be concluded to be linked to household behaviors. Other studies align these theories to a resolution of the problem through recommended and accepted remedies and treatment (Oberlander and Elverdan, 2000; Olenja, 2003).

Conceptual framework model

The conceptual framework model was used to guide the entire development of this the study. Figure 2.1. is conceptual framework that elaborates maternal knowledge and experience as regard utilization of free maternity, sociodemographic factors, parity, cognitive support, perceived good care; service providers experience such as work environment, level of qualification/designation, workload, motivation, remuneration and health facility readiness and capacity determinants such as infrastructure, medical equipment/supplies, accessibility, referral and linkage system are the independent variables for this study. The dependent variable for this study was utilization of free maternity services by mothers within health facilities in Homa-Bay County.

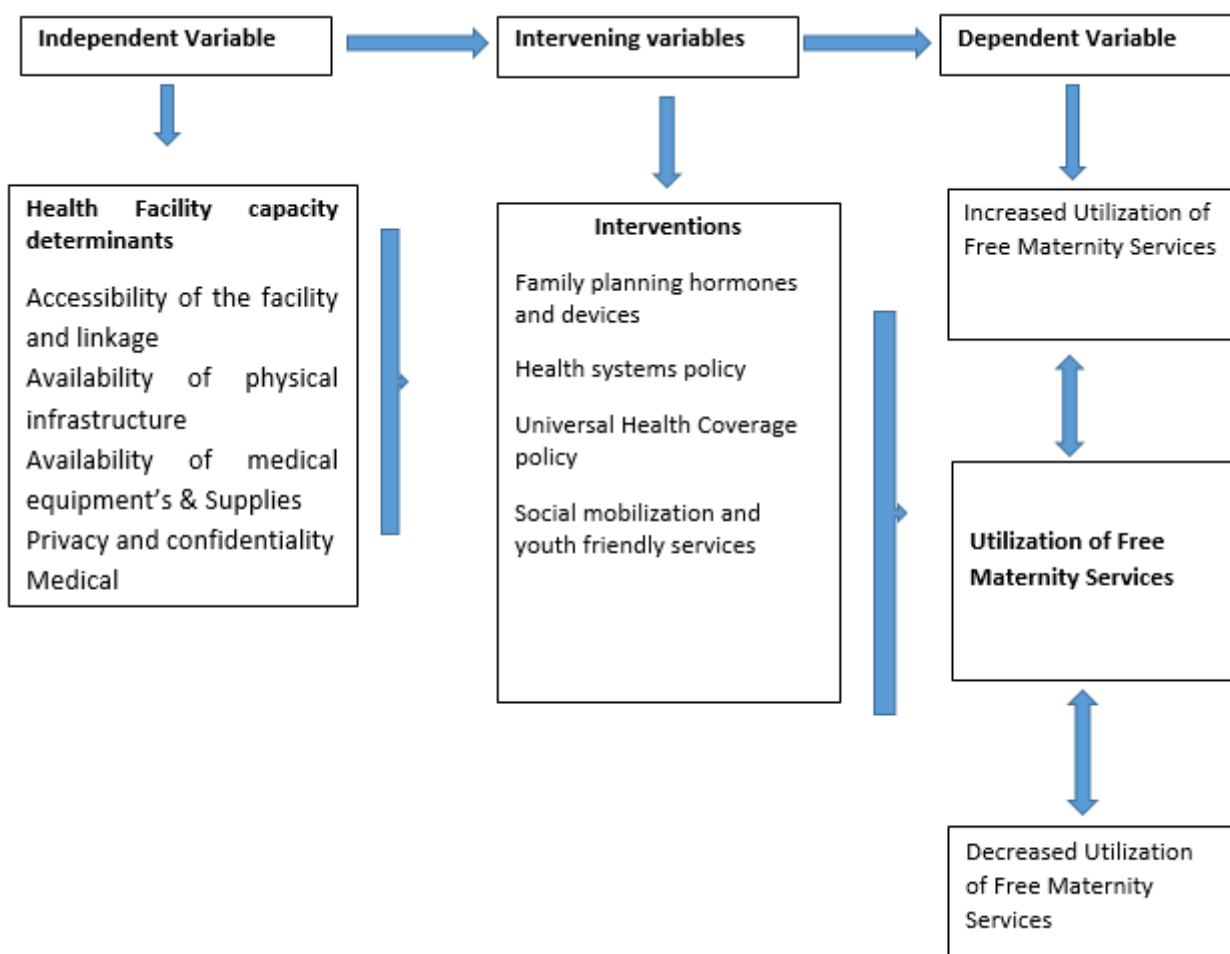


Figure 2.1. Conceptual framework model. Source: (Researcher, 2021)

METHODOLOGY

Introduction

This chapter three described the methodology that was used in this study to establish the determinants that influence utilization of free maternity services in health facilities. It describes study design, study area, study population, sampling techniques, sample size determination, data collection tools, data collection process, pre testing ,validity and reliability, data analysis and ethical considerations.

Study area

The research study was conducted in Homa-Bay County which is one of the 47 counties in Kenya which borders Migori to the western side, Kisii to the southern, Kisumu to the East and Lake Victoria on the East. Homa-Bay County covers an area of 3,154.7

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square Km with a total population of 1,131,950 (GoK, 2019). Lake Victoria is a major source of livelihood for Homa-Bay County residents with poverty rate at 44.1, urbanization at 14.3 and literacy rate is at 73.3. The County has 8 sub counties, 40 wards with 309 health facilities and an annual skilled delivery target of 141,737. There is one level five hospital at the County headquarter with 8 sub county hospitals and the rest of the facilities are level II and III health facilities.

Study design

This study employed a descriptive study design which was cross-sectional in nature using structured and semi structured questionnaire for quantitative data collection and interview guides for qualitative data collection to determine determinants that were influencing utilization of free maternity services among women of reproductive age 15-49 years attending health facilities in Homa-Bay County.

Target Population

This study population included all women of reproductive age between 15-49 years, who were residents of Homa-Bay County who consented for the study. Homa-Bay County had 592,367 females as per population (GoK, 2019).

Study Population

The target population of the study was mothers of reproductive age between 15-49 years who were attending maternity services at various health facilities in Homa-Bay County. Homa-Bay County had an average annual skilled delivery target of 141,737 and the monthly skilled delivery target was 11,812 which translates to approximately 400 daily skilled deliveries on average.

Sample size determination

The sample size was determined using formula, (Fishers *et.al*, 1998), re-cited by (Mugenda Mugenda, 2003) for study population greater than 10000. Homa-Bay County had an average annual skilled delivery target of 141,737 and the monthly skilled delivery target was 11,812 which was above 10,000 populations.

$$n = \frac{Z^2 pq}{d^2}$$

Where: n= the desired sample size (if target population is greater than 10000); Z=standard normal deviate corresponding to 95% confidence level (1.96); p=estimated proportion of target population of mothers attending delivery and PNC services = 0.54 (derived from 54% of skilled delivery of Homa-Bay County as per KDHS, 2014); q=1-p hence (1-0.54) =0.46 and d = the margin of error based on 95% confidence level = (0.05) as shown below.

$$n = \frac{1.96^2 \times 0.54 \times 0.46}{0.05^2} = \frac{0.095425344}{0.0025} = 382 \text{ mothers}$$

Therefore,

There was a 10% adjustment upward of 382 participants to cater for those who could decline to participate and incompletely filled questionnaires thus the total number of issued questionnaires to maternal mothers were 420.

Sampling Procedure

The study was conducted in 12 health facilities in Homa-Bay County whereby; 4 health facilities were identified using simple random sampling method for selecting health centers involved in this study representing the 8 Sub-Counties of Homa-Bay County. Using purposive sampling all of the 8 Sub-County Hospitals in Homa-Bay County were involved in this study, a total 12 health facilities were included in this study. A total of 420 mothers attending postnatal clinics were involved in this study. Respondents for quantitative data collection was done using structured and semi-structured questionnaires. These questionnaires were proportionately allocated according to the volume of each of the 12 health facilities in Homa-Bay County. The respondents from every facility was identified and selected using convenient sampling method whereby first come first interviewed basis till when the required sample size for the specific facility was achieved. In qualitative research, purposive sampling was used to identify 4 focus group discussion session participants from the identified four health facilities. The participants were mothers who did not participate in the quantitative data collection process and each session comprised of between 7-13 participants/ discussants led by; researcher leading questioning and research assistant taking notes. Eight Key Informant Interviews (KII) were conducted whereby; the each Sub-County Hospital in-charge (MOH) was purposively identified and involved in the interview and the process was led by researcher and research assistant was taking notes of the interview.

Data collection tools

A structured and semi-structured questionnaire were used to collect quantitative data, Focused Group Discussion guide was used to collect qualitative data from mothers of reproductive age who did not participate in quantitative data collection and a key

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informant interview guide was used to collect qualitative data from Sub-County health facility in-charges who had key important information regarding this study.

Validity

To ensure validity of the questionnaires, research supervisors went through the data collection tools to ensure errors were eliminated. The researcher also went through the questionnaires to assess if the questions capture the expected aspects of the study. The questions were also checked to ensure there was no ambiguity.

Reliability

Reliability was ensured by computing the Cronbach's Alpha reliability index of the data used, the most popular numerical coefficient of reliability (showing how closely related a set of items are as a group), based on the reliability of a test relative to other tests with the same number of items, and measuring the same construct of interest, was used in this study.

Table 3. 1: Cronbach's Alpha Case Processing Summary

		N	%
Cases	Valid	396	94.3
	Excluded ^a	24	5.7
	Total	420	100.0

a. List wise deletion based on all variables in the procedure.

Source: Researcher, 2022

The rule of thumb, as suggested by George and Mallery (2003), classified Cronbach's alpha coefficient values as: >0.8=Excellent; >0.7=Good; >0.6=Acceptable; >0.5=fair; >0.4=Poor and <0.3=Unacceptable. In the interpretation of the reliability results, it was observed that the closer Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale. It was imperative to calculate and report Cronbach's alpha coefficient for internal consistency reliability for the sub scales used in the study.

Table 3. 2: Cronbach's Reliability Index

Cronbach's Alpha	Cronbach's Alpha Based on N of Items	Standardized Items
.660	.748	5

Source: Researcher, 2022

From Table 3.2, the Cronbach's Alpha reliability index, based on five variables, was 0.66. This value, according to George and Mallery (2003), indicated the reliability of the data used in this study was acceptable.

3.10. Data collection process

Data was collected at the health facility as the unit of analysis; the first step was reported to the health facility in-charge for permission after which proceeded to MCH/FP clinic for further permission. After that the researcher was stationed at an office for confidentiality and privacy purposes within the reception for identification and interview of specific respondents. This quantitative data collection process was conducted through face-to-face interview and filling in the questionnaire. This was done after the consent was sought and granted by the respondent by the respondent. Qualitative data was collected from respondents by conducting four different Focus Group Discussions (FGDs) of each comprising a group of between 7-13 mothers of reproductive age who did not participate in qualitative data collection process. This process was led by the researcher leading the session and asking and moderating the session with the help of interview guide as the research assistant was writing notes of discussions. Another set of qualitative data that was collected was Key Informant Interviews (KII); this was conducted by interviewing the 8 health facility in-charges who were Medical officers of Health (MoH). The interview process was led researcher while the research assistant was writing notes of the interview as the process was guided by KII Guide.

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3.11. Data analysis and presentation

Data that had been collected was cleaned through physical assessment for inconsistencies, then manually coded on the questionnaires, and then entered into Statistical Package for Social Sciences (SPSS) version 23 spread sheet for analysis. The quantitative data was analyzed using descriptive statistical analysis methods which included count, percent, frequency and were tested using the measures of central tendency such as mean, mode and median as statistical tests. Inferential statistical analysis methods including correlations and regressions were also used for further analysis for deeper meanings of the findings and the Chi-square and Odds Ratio statistical tests of the analysis were used to establish the relationships and associations among variables. Qualitative data was analyzed thematically after cleaning and transcriptions the findings were arranged thematically according to responses from individual respondents and sessions. The key findings of qualitative research were used to reinforce the findings of the quantitative research. The findings of this study were presented in the form of tables, figures and narrative form for ease of understanding by the reader.

RESULTS

Introduction

The findings of this study were processed by applying descriptive statistics, factor analysis and inferential statistics. The findings were presented according to demographic information of the respondents and Determinants of Health facilities Influencing Utilization of Free Maternity Services among Women of Reproductive Age 15-49 Years Attending Health Facilities in Homa-Bay County. The response rate of this study was at 94% (396) of the respondents for qualitative research.

Demographics

This section presents data on socio-demographic characteristics of the study respondents as presented in Table 2.

Table 2. Shows respondents' demographics

	N=396	n	%
Clients Age Category			
	less Than 20yrs	60	15.2
	20-24yrs	104	26.3
	25-29yrs	109	27.5
	30-34yrs	82	20.7
	35+yrs	41	10.4
What is your source of income?			
	Farming	99	25
	Business	147	37.1
	Employment	52	13.1
	Others	98	24.7
Level of Education			
	No formal Education	10	2.5
	Primary Level	171	43.2
	Secondary Level	143	36.1
	Tertiary Level	72	18.2
Distance to the nearest Facility			
	Less than 30 Minute	66	16.7
	30-1hr walk	102	25.8
	1hr+ walk	228	57.6
Willing to reuse FMS in future			
	Yes	320	80.8
	No	36	9.1
	Undecided/do not know	40	10.1
How did you hear of free maternity service			
	Health talk at hospitals/health facility	258	65.2
	Radio	62	15.7

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Television (Tv)	15	3.8
Community Health Worker	61	15.4
Total	396	100

Source: (Researcher, 2022)

This study established that a total of 396 mothers were interviewed of whom 27.5% (109/396) of the respondents were women between 19-29 years of age. About 43.2% (171/396) of the respondents had attained primary level of education at while 36.1% (143/396) of them had secondary level of education and this study also revealed that 2.5% (10%) of them had no formal education. This study identified that 37.1% (147/396) of the respondents were engaged in business as their major source of income while (13.1% (53/396) of them were engaged in employment as their main source of income.

Concerning knowledge on free maternity services this study established 65.2% (258/396) of the respondents had heard about free maternity services from health talks at facilities/ hospitals. A total of 48.7% (193/396) of respondents received free maternal services when they visited health facility while some 37.6% (149/396) of them paid for some maternal services. This study also determined that (57.6% (228/396) of the mothers walked more than one hour to reach the nearest health facility. A total of 80% (320/396) of the respondents were still willing to reuse the facility while 10% (40/396) of them were still undecided.

5 Health facilities capacity determinants influencing utilization of free maternity services

This section presents the findings of objective three which were obtained after conducting facility assessments for the twelve facilities identified within Homabay County. Factor analysis was also conducted to show the relationships among the variables by concentrating those inter-related variables into fewer factors. The findings were as follows;

Table 3. Facility capacity assessment results

	Characteristics	Yes	%	No	%
Availability of referral System	Ambulance	6	50.0	6	50.0
	Telephone	3	25.0	9	75.0
	Emergency Hotline	1	8.3	11	91.7
Medical supply	Gloves	11	91.7	1	8.3
	Linen	11	91.7	1	8.3
	Cotton wool	11	91.7	1	8.3
	Oxytocin	10	83.3	2	16.7
	Magnesium Sulphate Injection	9	75.0	3	25.0
	Ampicillin Powder for Injection	7	58.3	5	41.7
	Gentamycin Injection	10	83.3	2	16.7
	Metronidazole Injection	11	91.7	1	8.3
Maternity equipment	Maternity Furniture	9	75.0	3	25.0
	Sharing bed	4	33.3	8	66.7
	Baby Cot	5	41.7	7	58.3
Essential newborn commodities	Nursery	12	100.0	0	0.0
	Resuscitaire	6	50.0	6	50.0
	Incubators	3	25.0	9	75.0
	Heat source	12	100.0	0	0.0
	Disposable Code ties	12	100.0	0	0.0
	Towel/blanket	3	25.0	9	75.0
	Oxygen	5	41.7	7	58.3
	Delivery Pack	11	91.7	1	8.3
	Operating Theater	5	41.7	7	58.3

Source: (Researcher, 2022)

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Half the facilities had a functional ambulance with only a quarter having a functional phone. Medical supply was on average available in 80% of the facilities and most of the supplies with Ampicillin Powder for Injection (58.3%) and Magnesium Sulphate Injection (75%) being the least supplied medical supplies. Nine out of the twelve facilities had adequate maternity furniture. About a third of the facilities had clients sharing bed with only five facilities having a baby cot.

Some of the inadequately available essential newborn commodities included Incubators (25%), Towel/blanket (25%), Oxygen (41.7%), Operating Theater (41.7%) and Resuscitaire (50%).

Factor Analysis

Factor analysis due to Principal Component Analysis (PCA) was used to analyze health facility and health care delivery as factors influencing the use of free maternity care services. Factor analysis shows the relationships among the variables by concentrating those inter-related variables into fewer factors. PCA is a mathematical procedure that transforms a number of (possibly) correlated variables into a (smaller) number of uncorrelated variables known as principal components.

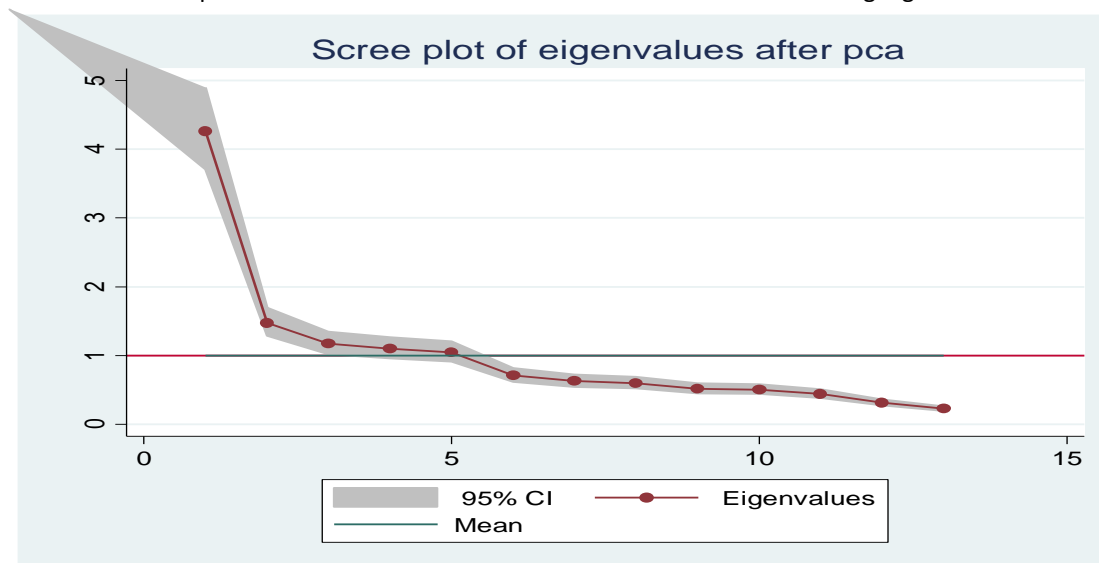
Table 4: Principal Component Analysis Table

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	4.264	2.787	0.328	0.328
Factor2	1.477	0.304	0.114	0.442
Factor3	1.173	0.074	0.090	0.532
Factor4	1.099	0.050	0.085	0.616
Factor5	1.049	0.338	0.081	0.697
Factor6	0.711	0.084	0.055	0.752
Factor7	0.627	0.028	0.048	0.800
Factor8	0.599	0.080	0.046	0.846
Factor9	0.519	0.013	0.040	0.886
Factor10	0.505	0.064	0.039	0.925
Factor11	0.441	0.129	0.034	0.959
Factor12	0.312	0.087	0.024	0.983
Factor13	0.225	.	0.017	1.000

$X^2 = 1557.14$ $df = 78$ $p\text{-value} = 0.0000$

Source :(Researcher, 2022)

Health Facility PCA obtained a total of 13 components and only 5 components were significant to Kaiser-Meyer-Olkin (KMO) Criterion of Eigen values greater than one (Table 4). KMO is an index used to examine the appropriateness of factor analysis. The total variance of these 5 components was 70%; the first component explaining 33%, the second component 11%, the third component 9% the fourth component 9% while the fifth 8% of the total variance .Table 4. highlights the results.



Source: (Researcher, 2022)

Figure 1: Scree plot pictorially presents the five loading components (health facility factors)

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Using factor loadings greater than 0.5 and cross-loading (loadings with negative value) less than -0.4 to explain the relationship between the covariates and factors, the first extracted factor that explains the highest variation revealed that the clients preferred clean environment including drinking water, bathing facility, toilet facility and hand washing facility. The second factor confirmed that they were concerned with staff suitability, availability of clean drinking water and the confidentiality level at the facility. The third factor adequacy in staffing, service rooms and equipment suitability. The fourth factor illustrated the effect accessibility in terms of distance to the facility and registration into the Linda mama service. Finally, the last factor revealed confidentiality and staff strike as related concerns. Figure highlights the results.

Table 5. Factor Analysis table

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Uniqueness
The number of health staff in the health facility is <u>adequate</u> .	0.2289	0.0411	0.7921	-0.0113	0.0863	0.3109
The health staff in the health facility are <u>well suited</u> to treat women's health problems	0.0619	0.7597	0.3047	-0.0615	-0.1014	0.3121
The waiting rooms, examination rooms and other rooms of the health facility are <u>adequate</u> for women's health problems.	0.3311	0.1780	0.6014	-0.3610	-0.0870	0.3591
The provision of clean drinking water for women in the facility is <u>adequate</u> .	0.5492	0.6804	0.0194	0.1286	-0.0309	0.2175
Hand washing facilities for women in the facility are <u>adequate</u> .	0.7768	0.3443	0.1201	0.0107	0.0829	0.2566
Bathing facilities for women in the facility are <u>adequate</u> .	0.7975	0.1269	0.0334	0.1188	0.2230	0.2830
		-			-	
Toilets for women in the facility are <u>adequate</u> .	0.7331	0.0921	0.3332	0.1268	0.0679	0.3224
The overall environment of the health facility is <u>very clean</u> .	0.5645	0.4302	0.1913	0.0848	0.2066	0.4098
The equipment in the health facility is <u>well suited</u> for detecting women's health problems.	-	0.0399	0.3114	0.6648	0.2880	0.2636
			-			
The distance from your home to the health facility is <u>very far</u> .	0.0750	0.1939	0.0247	0.8099	-0.2303	0.2472
Registration for Linda mama Service is tedious	0.2274	-0.1554	0.0792	0.7085	0.2707	0.3426
Confidentiality is very important in free maternity provision	0.2062	0.6167	0.0070	0.1161	0.4773	0.3359
		-				
Health workers strike affect free maternity	0.1117	0.0083	0.1141	-0.0650	0.8578	0.2343

Source: (Researcher, 2022)

From the above factor analysis, well-equipped health facility with good sanitation system, competent health staff with good sanitation facility, adequate staff and well equipped health facility, distance to the facility and registration for *Linda Mama* service and health workers strikes emerged as a combined factors which are significant in positively influencing the utilization of free maternity services. Table 5 highlights the results

Table 6. Principal Component Analysis Table

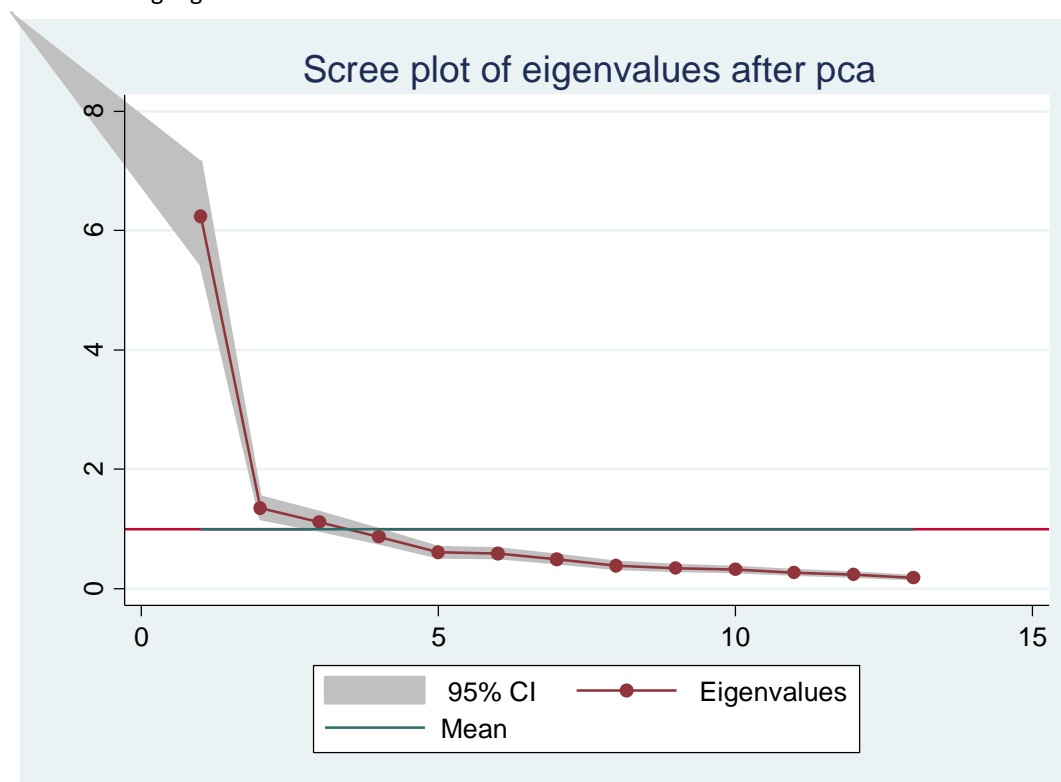
Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	6.242	4.895	0.480	0.480
Factor2	1.347	0.229	0.104	0.584
Factor3	1.118	0.249	0.086	0.670
Factor4	0.869	0.264	0.067	0.737
Factor5	0.605	0.019	0.047	0.783
Factor6	0.587	0.097	0.045	0.828
Factor7	0.490	0.103	0.038	0.866
Factor8	0.387	0.040	0.030	0.896

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Factor9	0.347	0.030	0.027	0.922
Factor10	0.317	0.045	0.024	0.947
Factor11	0.272	0.035	0.021	0.968
Factor12	0.237	0.053	0.018	0.986
Factor13	0.184	.	0.014	1.000
$\chi^2 = 2831.53$ df= 78 p-value= 0.0000				

Source: (Researcher, 2022)

Health Care Delivery PCA obtained a total of 13 components and only 3 components were significant to Kaiser-Meyer-Olkin (KMO) Criterion of Eigen values greater than one (Table 5). KMO is an index used to examine the appropriateness of factor analysis. The total variance of these 3 components 66.7%; the first component explaining 48%, the second component 10.2%, the third component 8.5%. Table 6 highlights the results.



Source: (Researcher, 2022)

Figure 2: Scree plot pictorially presents the five loading components (health facility factors)

Using factor loadings greater than 0.5 and cross-loading (loadings with negative value) less than -0.4 to explain the relationship between the covariates and factors, the first extracted factor that explains the highest variation revealed that the clients were concerned with availability of the required drugs and how the health care workers treated them during service provision. The second factor confirmed that they were pleased with the procedure and time taken when examining the expectant mother if done well. While the last factor though concerned with the humiliating procedures admitted that the drugs were easily obtained and danger signs were well explained the patient. Figure 2 highlights the results

Table 7. Factor analysis table

Variable	Factor1	Factor2	Factor3	Uniqueness
The health staff in the health facility examines pregnant and postpartum women well.	0.133	0.845	0.138	0.250
The health staff in the health facility is very capable of finding out what is wrong with the patients.	0.298	0.814	0.140	0.229

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The health staff in the health facility prescribe the drugs that are needed.	0.747	0.309	0.173	0.316
The drugs supplied by this health facility are good.	0.674	0.481	0.082	0.307
Patients can obtain drugs from this health facility easily.	0.239	0.365	0.720	0.292
The health facility provided very much privacy during vaginal examination and delivery.	0.492	0.449	0.303	0.465
You felt very much of unnecessary and humiliating procedures during antenatal and delivery care.	0.091	0.002	0.905	0.173
The information of danger signs of delivery and postpartum provided by health staff is adequate.	0.266	0.412	0.568	0.437
The health staff in the health centre are very open with the patients.	0.798	0.150	0.069	0.336
The health staff in the health facility are very compassionate towards the patients.	0.808	0.097	0.201	0.297
The health staff are respectful towards the patients	0.711	0.324	0.043	0.387
The time that the health staff devote to their patients is adequate.	0.309	0.611	0.118	0.517
The health staff in the health facility are very honest.	0.762	0.186	0.310	0.288

Source: (Researcher, 2022)

From the above factor analysis, good supplies, respectful and diligent healthcare staff emerged as a combined factor which is significant in positively influencing the utilization of free maternity services. Table 7 highlights the findings.

Table 8. Regression analysis

	Factor	Odds Ratio	Std. Err.	z	P-value	[95% CI]
F_1_1CAT	Completely Disagree	Ref				
	Disagree	0.92	0.31	-0.23	0.82	(0.48 1.8)
	Agree	0.37	0.17	-2.17	0.03	(0.15 0.91)
	Completely Agree	1.53	0.92	0.7	0.48	(0.47 4.99)
	Do not know	1.48	0.91	0.63	0.53	(0.44 4.94)
F_1_2CAT	Completely Disagree	Ref				
	Disagree	0.61	0.22	-1.39	0.16	(0.31 1.22)
	Completely Agree	0.41	0.21	-1.78	0.08	(0.15 1.09)
	Do not know	0.43	0.29	-1.23	0.22	(0.11 1.64)
F_1_3CAT	Completely Disagree	Ref				
	Disagree	0.96	0.32	-0.14	0.89	(0.49 1.85)
	Agree	1.50	0.50	1.22	0.22	(0.78 2.88)
	Do not know	1.42	0.65	0.77	0.44	(0.58 3.5)
F_1_4CAT	Completely Disagree	Ref				
	Agree	0.78	0.24	-0.81	0.42	(0.43 1.42)
	Completely Agree	0.84	0.28	-0.52	0.60	(0.44 1.60)
	Do not know	0.79	0.33	-0.56	0.57	(0.34 1.81)
F_1_5CAT	Completely Disagree	Ref				
	Disagree	1.28	1.28	0.25	0.81	(0.18 9.06)
	Agree	1.71	1.50	0.61	0.54	(0.31 9.52)
	Completely Agree	0.71	0.63	-0.38	0.70	(0.12 4.06)
	Do not know	0.51	0.66	-0.52	0.60	(0.04 6.5)
F_2_1CAT	Completely Disagree	Ref				
	Completely Agree	1.39	0.67	0.68	0.50	(0.54 3.55)

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	Do not know	2.83	1.83	1.61	0.11	(0.80 10.02)
F_2_2CAT	Completely Disagree	Ref				
	Completely Agree	0.99	0.65	-0.01	0.99	(0.28 3.55)
	Do not know	0.50	0.22	-1.55	0.12	(0.21 1.20)
F_2_3CAT	Completely Disagree	Ref				
	Disagree	2.52	0.90	2.57	0.01	(1.25 5.09)
	Agree	1.23	0.45	0.57	0.57	(0.60 2.50)
	Do not know	1.55	0.82	0.83	0.41	(0.55 4.36)
	_cons	0.91	0.82	-0.1	0.92	(0.15 5.36)

Source: (Researcher, 2022)

Further analysis using logistics regression revealed that the respondents who agreed with the need for a well-equipped health facility with good sanitation system were 63% (OR 0.37, $p = 0.03$) more likely to reuse FMS than those who completely disagreed. While those who completely agreed and those did not know need for a well-equipped health facility with good sanitation system were 1.53, 1.48 times respectively likely to take up FMS than those who completely disagreed. The respondents who completely agreed to the need of competent staff with good sanitation facility were 41% (OR 0.41, $p=0.08$) more likely to uptake FMS than those who completely disagreed.

Those who disagreed with receiving quality service and supplies but being exposed perceived humiliating procedures were 2.52 times likely to uptake FMS than those who completely disagreed. Table 8 highlights the results.

DISCUSSIONS

Introduction

This chapter presents the discussions on the findings of this study and is organized as per the Determinants of Health facilities Influencing Utilization of Free Maternity Services among Women of Reproductive Age 15-49 Years Attending Health Facilities in Homa-Bay County.

Health facilities capacity determinants in FMS utilization

Availability of adequate toilets was a significant factor which influenced maternal mothers' utilization of free maternity services. Analysis using logistics regression revealed that the respondents who agreed with the need for a well-equipped health facility with good sanitation system were 63% (OR 0.37, $p = 0.03$) more likely to reuse FMS than those who completely disagreed. The direction of influence of the variable was positive and this concurs with study carried out by Nicole *et al.*, (2013) who found that increasing the budget line for health care is absolutely essential in order to strengthen health systems and ensure there is sufficient infrastructure, equipment, and staff to implement universal free maternal health care effectively this also was similar with the study done by Tororei, (2012) who found that only 36% of public health facilities offering delivery services had all the basic delivery room infrastructure and equipment needed; rural areas and lower level facilities were particularly unequipped. The study also revealed that 75% (9/12) health facilities are successfully implementing Free Maternity Services while quite a number of health facilities have challenges with printers, computers and electricity which are key components in the registration process. Mothers also perceived registration for Linda Mama Service as tedious since teenage mothers who were younger than 18 years did not have the requisite documents for registration. Some facilities were charging some small fees especially for non-pharmaceuticals such as syringes, needles and gloves used during delivery process while most facilities were able to give free service to mothers.

Distance to the health facility was not considered by the participants for utilization since (57.6% (228/396) of the mothers walked more than one hour to reach the nearest health facility. A total of 80% (320/396) of the respondents were still willing to reuse the facility regardless of the distance. The major factor considered by most mothers were overall well-equipped health facility with good sanitation system, competent, adequate, respectful and diligent healthcare staff. Registration process for *Linda Mama* service and good supplies also emerged as a combined factors that would determine utilization of FMS. This revealed the utilization determinant is as a result of complex amalgamation of service related factors each contributing to the final decision on utilization.

Using factor analysis followed by logistic regression the mothers were concerned about sanitation and quality of service with those who knew the need for well-equipped facility having higher odds of reusing FMS. This is a clear pointer that women have dignity

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and perceived quality of service that if not met they are likely not to take up service even if offered free. However some of them persevered to take up the services despite exposure to what they perceived as humiliating. This can be explained by the either education level and or economic level of some of the mothers which subjected them to a level of vulnerability. The study also revealed that mothers' utilization of free maternity services challenges were registration for *Linda mama* services, stock outs of drugs, availability of handwashing facility and bathing facilities. Stock outs of drugs, availability of handwashing facility and bathing facilities also revealed positive association with mothers' utilization of free maternity services in Homa-Bay County this was concurring with study done by Mwabu *et al.*, (1993), who found that ,when the drugs are available, the demand increases. On the other hand, increase in income was also found out to affect demand for medical care positively, with a shift from informal health care to formal healthcare where majority of these end up at private or mission health facilities. User fees and distance to the health facility did not affect the demand for free maternity services significantly since some 37.6% (149/396) mothers still paid for some maternal services with the knowledge that the service should be offered free.

CONCLUSION

This study concluded that utilization determinant was as a result of complex amalgamation of service related factors each contributing to the final decision on utilization. The study also concluded that, privacy during vaginal examinations strongly influenced re-use of free maternity services while staff capability of finding women problems, staff prescription of needed drugs, humiliation of maternal mothers during deliveries, information on danger signs, staff openness, and staff compassion fairly influenced utilization of free maternity. Finally, it concluded that there was significant association between staff respect, and honesty of the staff with utilization of free maternity service.

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Democracy and Underdevelopment in Coastal Communities in Akwa Ibom State Since 1999



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ABSTRACT: Democracy in Nigeria and of course in Akwa Ibom State has created lopsided development and thereby widened the gap of inequality in the State. Democracy is a political and constitutional arrangement in which the values of economic development and social welfare of the citizens can grow and be sustained. In spite of the great potentials in agricultural, mineral and human resources in the state, development has remained uneven. The coastal communities like other rural areas in the mainland, are grossly underdeveloped, despite harbouring the wealth of the state, particularly, petroleum oil and gas. The coastal areas of the state are replete with poor or absence of basic infrastructure, poverty, unemployment high-crime rate, and youth restiveness. The article concludes that democracy in the state rather than foster a sustained development, has created uneven and uncoordinated development especially in the coastal areas. That only adequate provision of social infrastructures with sustainable development programme can secure the future of the people both in the hinterland as well as in the coastal communities.

KEYWORDS: Democracy, Coastal, Communities, Development, Underdevelopment and Akwa Inom State.

INTRODUCTION

Akwa Ibom State is one of the states in the South-South geo-political zone in Nigeria, created on September 23, 1987. The state is made up of thirty one (31) local government areas; and is further divided into two geographical zones, namely, the hinterland and the coastal areas. The hinterland or mainland areas of the state constitute twenty eight (28) local government areas, while the remaining three (3) local government areas; that is Eastern Obolo, Ibeno and Mbo make up the coastal communities. These three local government areas stretch from the Cross River on the east and border on the Atlantic Ocean. The same three local governments cover about one hundred and twenty nine (129) kilometres coastline, making Akwa Ibom State the longest coastline in Nigeria. The area equally plays host to some multinational oil companies – Shell Petroleum, Exxon Mobile Unlimited, Agip, and of recent Stallion Global.

In addition, the vegetation of the coastal area is dominated by mangrove, foliage of trees and later nypa palm (*nypa fruticans wurmb*). Also, there are wild palm and coconut trees which grow extensively all over the area. The coastal strips have deposits of fine sand which form the coastal bank on which some settlements/villages exist. These settlements are called in Obolo language “okwaan mbong or Elekpon” “Ukana” in Ibeno and “Ine” in Mbo. Some of these settlements are fishing settlements which are not for permanent residence. Within the banks of the rivers/creeks are some prominent fishing settlements, among them are: Elekpon, Okoroete, Okwaan Obolo, Agansat, Etekum, Elekpon Obianga, Ogbogbouti, and Agansa (all in Eastern Obolo); Akata, Ikpaira, Ibot Okpon, Itabasi, Ntitoekaiba (in Ibeno) and Okposo, Utanayanta, Erebu, Ukpata (Mbo).

Traditionally, the communities engaged in fishing, trading and farming. Fishing is carried out in the creeks, rivers and the Atlantic Ocean. The three local governments have common history of origin and migrations. Uya (1984:29-31, Ejituwa (1991:6) says that the Oron, Obolo and Ibeno migrated from the Ramby region of the South West Camerouns. History has not recorded any war or conflict among them. Three different languages are spoken in the area: Obolo (in Eastern Obolo), Oro (in Mbo) and Ibeno (Ibeno). Urua (2004:134-135) classifies their languages under the Niger-Congo phyla. There are similarities in their culture and this probably confirmed their historical background.

Following the creation of states and local governments in 1996, these coastal communities in Akwa Ibom State, were constituted into three local governments namely – Eastern Obolo, Ibeno and Mbo. The creation of these local government areas have been a dream come true because of the yearnings of the people. The people have continued to cherish the euphoria which

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greeted that proclamation – creation of local government in 1996. The people had hoped that local government creation would usher in better job opportunities, rapid development and radical transformation of their economy. But their expectations were soon dashed with the democratic rule from 1999. It later dawned on the people that the state government and the councils could not by any magic wand, meet the people's expectations by radically transforming the infrastructures and economy into an Eldorado. Hence, this article examines the impact of democracy and underdevelopment in Akwa Ibom State vis-à-vis the coastal local government areas since 1999.

CONCEPTS OF DEMOCRACY

Democracy in Nigeria predated the independence of the country in 1960. The idea of democracy emerged with the formation of the first political party in Nigeria – Nigerian National Democratic Party (NNDP) in 1923. The goal of democracy has been vehemently pursued from the colonial period through the decolonization of Nigeria, and her attainment of independence in 1960 (Orukpe and Isibor, 2018:212-213). Since 1960, the struggle for democracy has been like wall clock pendulum with the First Republic-1960-1966; second and Third Republics 1979 and 1983; while 29, 1999 marked the Fourth Republic. In point of fact, the transition to democracy on May 29, 1999 did not mark the birth of democracy as highlighted.

It is pertinent to note that democracy is connected with development. In fact, democracy galvanizes development. Democracy is generally seen as the suitable form of government, because it ensures human freedom, socio-political and economic development. No doubt that Sam Oyorbaire says that it is the very stuff of politics (Sam Oyorbaire, 1992:32).

Therefore, according to Igboke (2019:17) democracy means a system of government whereby the people exercise their governmental power either directly or indirectly through representatives elected by them periodically. Also, the popular definition of democracy is that of Abraham Lincoln, which stated thus:

“Democracy is the government of the people by the people and for the people” (cited by Igboke, 2019:17).

Generally, democracy is people-centred system of government, which implies that the people are sovereign and power belongs to the people. In other words, democracy revolves round the people and is germane to development. Chris (2015:18-19) mentioned the merits of democracy among others to include free choice of leaders, equal opportunity, equality of individual, participation in governmental affairs and decision-making.

DEVELOPMENT

The term development lacks universal accepted definitions. Umana (2003:105) says that development is used and interpreted in different ways by different analysts; and it is also used and analysed in political and economic literature and discourses. Iniodu (2004:309-310) expresses similar opinion and states that development means different things to different people in different places at different times. That development means improvement or upward mobility in the economic, social or political status of the community. Okorosaye-Orubite (2008:1002-1013) cited Fletcher in Rex, defined development as the actualization of an implicit potentiality, the simplest example being the patterned growth and maturation of a seed or an initial germ cell to the full adult form of the individual plant or animal or human person. Frank (2016:13-20) listed four popular conceptions of development to include – economic growth, modernization, distributive justice and socio-economic transformation.

Furthermore, development is more often define in terms of economy. Development should not be limited to economic aspect alone but also to political and social issues. For instance, Nigeria's transition from military to civilian administration could be described as political development.

UNDERDEVELOPMENT

Underdevelopment like development has no universal definition. In fact, there is no agreement on what constitutes underdevelopment. Umana (2003:100) defines underdevelopment as a state in which an economy does not record any progress in terms of taking care of the basic needs of the citizens. It implies a state of unsatisfactory societal well-being compared to the existent conditions elsewhere (Adeyemo 2003:14, Asuk 2019:27). Nearly all scholars attribute underdevelopment in Africa (Nigeria inclusive) to colonialism. Underdevelopment means stagnation, poverty, unemployment, backwardness and so on. Like development, the concept of underdevelopment is more or less linked with economy. Less emphasis is placed on contemporary or modern underdevelopment as the case may be in Nigeria in general and Akwa Ibom in particular. As Umana (2003:111) puts it; modern underdevelopment expresses a relationship of exploitation.

In the case of Akwa Ibom State, the political elites vis-à-vis the government use democracy to enrich themselves at the detriment of the people and also lack the political will to create a culture of development with regard to the coastal communities despite the fact that these communities harbour over 90% of the wealth of the state-petroleum oil and gas.

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Coastal Communities in Akwa Ibom State Since 1999: Democracy and Underdevelopment Debate

As earlier mentioned, Akwa Ibom State has thirty one (31) local government areas out of which three (3) border on the Atlantic Ocean namely: Eastern Obolo, Ibeno and Mbo. These local governments sandwich between Imo and Cross Rivers. The return of the country (Nigeria) from military rule to civilian administration on May 29, 1999 was seen as a welcome development. There was jubilation as democracy is seen as one of the best forms of government and it is people-oriented. Democracy is congruent with development and could reduce underdevelopment significantly. The people expected that democracy would transform their economy, for instance, provision of infrastructure, creation of employment opportunities and reduction of poverty/youth restiveness.

In Akwa Ibom State of Nigeria, between 1999 and 2004, the state government identified the problems/challenges facing the state to include, poverty, unemployment inadequate energy (electricity supply) and lack of good drinking water. Others are poor enrolment in schools/declining educational infrastructure as well as poor health facilities/services. (Akwa Ibom State Economic Empowerment and Development Strategy, AK-SEEDs, 2004:5-13). Okoko and Ibaba (1998:56-67) confirmed the absence of infrastructure in the Niger Delta region (Akwa Ibom State inclusive). This is acute in the coastal/riverine communities despite the fact that both the state and federal governments have been making billions of dollars from crude oil/gas sales, extracted from the areas, while the coastal communities have nothing to show for their wealth.

Again, since 2004, there has been a downward trend in infrastructural development in the coastal communities in the State. In point of fact, most rural communities in the state (including coastal communities) have no electricity supply, though there are poles and cables but no power supply. In Eastern Obolo, Oil Mineral Producing Development Communities (OMPADEC) now Niger Delta Development Commission (NNDC) provided electricity in the 1980s. The electricity supply covered Okoroete, Okorombokho, Okoroiti and Iko Town, while that of Ibeno was provided by the Exxon Mobile and Mbo by the Akwa Ibom State Government. However, some of these facilities have become moribund because of lack of maintenance.

In the area of health, the coastal communities have two cottage hospitals established in Okoroete, and Ibeno respectively; and none in Mbo. The areas had well over thirty (3) primary health centres; but both the cottages hospitals/primary health centres lack manpower and equipment. The absence of regular electricity supply has also crippled the operations of these health facilities. The cottage hospital in Okoroete, Eastern Obolo Local Government headquarters has no resident doctors. The same situation applies to the cottage hospital at Ibeno.

Another issue threatening the wellbeing of the coastal communities is poor enrolment of the coastal communities pupils/students in schools as well as declining educational facilities. The three local government areas aforementioned had nine (9) secondary schools – four (4) in Eastern Obolo, four (4) in Mbo and one (1) in Ibeno and about eighteen (18) primary schools. The primary /secondary schools like the health centres are poorly equipped with inadequate seats for staff and students; inadequate number of staff, poor libraries/laboratories as well as lack of science equipments. Some of the equipments (sciences' equipments/computers) were donated by multinational companies operating in the areas as part of their Corporate Social Responsibility (CSR). This equipment could not be put to use because of lack of electricity to power them. Some secondary schools in the area have only four permanent teachers and the same applies to the primary schools (most of the schools rely heavily on the services of Youth Corp members whose services have a 12-monthly cycle). It is imperative to note that some of these secondary schools were established through community efforts and were later taken over by the state government. A case in point is the secondary school at Iko Town established by Shell Petroleum (SPDC) while Okoromita Secondary School was established through community effort (all in Eastern Obolo Local Government Area).

Moreso, the entire coastal communities have no landing jetty, good drinking water but are constantly threatened by severe coastal erosion/flooding caused by climate change and environmental pollution especially from oil spill. The oil spill, for example has caused a lot of damages to aquatic life and the ecosystem. Coastal erosion/flooding has affected the three coastal local government communities. Ita Abasi community in Ibeno was washed away by Atlantic Ocean in 2017; and most fishing settlements in Mbo and Eastern Obolo were also affected.

In addition, coastal communities are affected by unemployment and poverty. Unemployment is visible in the State while the coastal communities appeared to be worst affected – in spite of their contributions as oil bearing communities. AK-SEEDS (2004:5-6) puts unemployment rate in the state at 60%. While the National Bureau of Statistics NBS (2010) placed the state third in unemployment rate in the country and in 2020, the state's unemployment rate was 45% that is second in the country (NBS:2020). Though the various reports did not mention the coastal communities, they are probably the most affected. The high rate of crime in the area have been attributed to unemployment, which has also given rise to unrest and youth restiveness. Unemployment in the state has been attributed to poor leadership and lack of political ideology by the ruling political party that is People's Democratic Party (PDP) that has been in power since 1999. (Akwa Ibom State: Planet FM 101.1 News, Friday 3, June 2022, 7.00am).

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Closely linked with unemployment is poverty and malnutrition. Israel and Mbikan (2021:56) stated that poverty is one of the most widespread socio-economic problems in the state especially in the coastal or littoral communities. Poverty and malnutrition is so visible that a former legislator and commissioner in Eastern Obolo Local Government Rt. Honourable Adasi Ubulom was quoted as saying that poverty walk bear footed in the area. As part of the Niger Delta region, the coastal communities in Akwa Ibom State may be regarded as the least develop part of the state.

Democracy in Nigeria in general and in Akwa Ibom State in particular has encouraged corruption, nepotism and lopsided development. (Akwa Ibom State: FM 94:5 Wednesday June 1, 2022, 8.00pm Podium Programme). The programme also faulted the process of selecting representatives from the local governments, states and federal by the various political parties; and that people with poor leadership qualities have been presented by the various political parties to the electorates. In the case of Akwa Ibom State, since 2007 successive governments have concentrated development in the state capital (Uyo) and their respective villages/local government areas. A case in point is the government of Chief Godswill Obot Akpabio (2007-2015) which concentrated development in Ukana and Ikot Ekpene Local Government Areas with good roads, hospitals, borehole water, and renovation of all the government secondary schools. His government, brought Police Secondary School, Federal Polytechnics and Police Mobile Unit to Ukana his own village.

Also, the government of Udom Emmanuel is toeing the same line with Godswill Akpabio his predecessor by providing the basic infrastructure to his village Awa and part of Onna Local Government Area. The administration, brought Akwa Ibom State University Teaching Hospital, and some industries-which about 80% of them are sited in Awa, the home town of the current governor.

The two administrations already mentioned made little or no effort to develop the coastal communities. With this philosophy of "Charity Begins at Home" demonstrated by the immediate past and the current administrations in the state, it will appear that the solution to the situation of uneven development as it affects the coastal communities in Akwa Ibom State will only be properly addressed if an indigen of one of these coastal communities is elected as a governor of the state-a task that appears to be a near impossibility, judging from how politics is played in the state.

CONCLUSION

It is generally agreed from the discussion above that the leadership structure in the state since 1999 has left much to be desired in terms of development, especially as it affects coastal communities. If there are lofty ideals in democracy, the Akwa Ibomites have lost touch with them. Development should be all-inclusive. The approach of "winners take it or Charity Begins at Home", should be discouraged. Therefore, to stem the tide of crime and reduce rural-urban migration, the state's emphasis should be on evenly-spread development that cuts across both coastal as well non-coastal areas.

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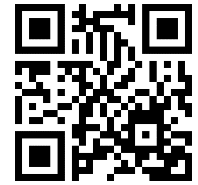
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Research of Factors Affecting the Intention of Life Insurance Agents in Vietnam



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SUMMARY: The article presented the intention to leave the organization and related concepts. Through qualitative and quantitative research methods, the authors have built models and hypotheses to study the factors affecting the intention to leave the organization of life insurance agents in Vietnam. The research results confirm the impact of 6 factors on the intention to leave the organization of Vietnamese life insurance agents, including commitment to the business, job satisfaction, fairness in the business, ethical values, etc. Corporate ethics, career orientation, training. Combining the results of the analysis of the agent's assessment of the variables, the results of the analysis of the real situation of agent development and the current situation of the life insurance market in Vietnam, can serve as a basis for identifying limitations, proposed recommendations for life insurance businesses, the Vietnam Insurance Association and the State Administration to increase the proportion of full-time agents, thereby lowering the rate of leaving the organization Vietnam life insurance agent.

KEYWORDS: Intent to leave, Insurance Agent, life insurance, Vietnam

1. PREAMBLE

Russell L. Handlon, through an overview study, confirmed that the problem of leaving the agency's business is a difficult problem for many insurance businesses. According to him, the average level of agent retention in four years is only 15 - 19% [8]. Leaving the enterprise creates great costs for enterprises such as increasing recruitment and training costs, reducing and destabilizing consulting quality, reducing revenue and profit. At the same time, leaving the business can also create pressure on management that is a successive consequence of the remaining people who also intend to leave the enterprise. The intention to leave the business and the exit from the business is proven to be the main obstacle to the success of the insurance business as well as any business globally.

According to the international research organization LL global (Stock Biz, 2010), in Vietnam about 80% of recruited agents quit within 12 months, the leaving rate of agents (within 4 years) is over 90% [9]. The low rate of agent retention has had a significant impact on the performance of life insurers doing business in Vietnam in many respects: instability of a major distribution channel, increased recruitment and training costs, insurance service quality is not guaranteed, causing pressure on management problems, causing instability and reducing business efficiency. Therefore, this study will clarify the issues. What factors affect the intention to leave the business of Vietnam Life Insurance Agents? What is the level of impact of factors on the intention to leave the business of the life insurance agent in Vietnam today?

2. THEORETICAL FOUNDATIONS, RESEARCH MODELS AND HYPOTHESES

2.1. Concepts

Intent to leave the organization

Intention to leave the enterprise is understood as the employee's plan to leave the current job and look for another job in the near future [8].

Insurance Agent

According to Article 84 of the Law on Insurance Business (2000): "Insurance agent is an organization or individual authorized by an insurance enterprise on the basis of an insurance agency contract to perform insurance agency activities

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according to the provisions of Article 84 of the Law on Insurance Business (2000): provisions of this Law and other provisions of relevant laws" [7].

Organizational Commitment

Organizational commitment is a psychological state (wants, needs, responsibilities) that show an employee's relationship with the organization and have an impact on the desire to stay in the organization. Commitment to the organization has 3 basic components: affective, continuance, normative [4].

Job Satisfaction

Job satisfaction is how people feel about their jobs and different aspects of their jobs, it is the extent to which people like (satisfied) or dislike (dissatisfied) their jobs [10].

Equity in the organization

Organizational equity is a term used to describe an individual's perceptions of the fairness of decisions and decision-making processes within an organization and the effect those perceptions have on behavior [3].

Corporate ethical values

Ethical corporate values are not only the foundation of all other values associated with quality products and services, but also help establish and maintain standards that describe the 'rights' of what to do and what to expect "worth doing" thing [2].

Career orientation

Career orientation is a formal socialization process in which the organization influences the attitudes and values of newcomers to match those within the organization; New employee orientation is designed to prepare a new person to claim a certain position in the organization [11].

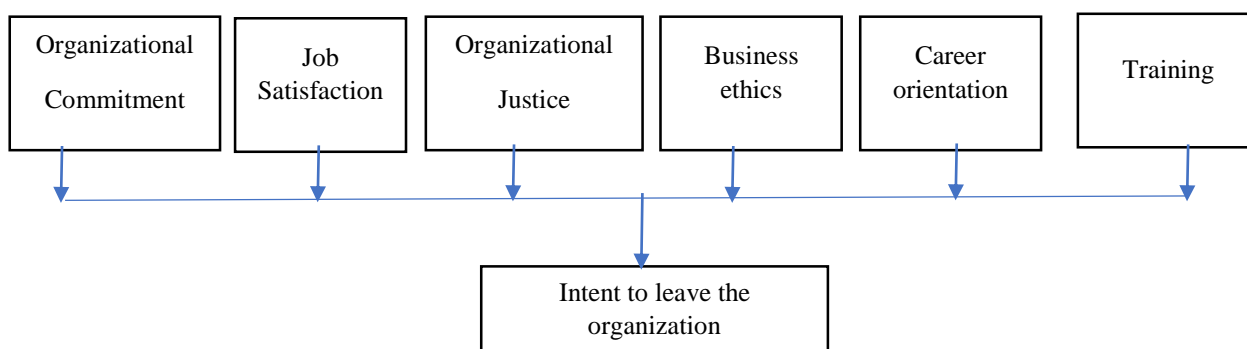
Train

This definition refers to "Activities that provide the knowledge, skills and attitudes required for productive and effective performance within an occupation or group of occupations. Training includes initial training, retraining, advanced training, updating and in-depth career-related training"[5].

2.2. Research model and hypothesis

The proposed research model is established based on the identification of factors that can affect the intention to leave the enterprise of the life insurer. Although there is no mainstream theory, however, inheriting the overview research results from previous studies, the thesis proposes a research model consisting of 6 independent variables: (1) Organizational Commitment, (2) job satisfaction, (3) Organizational Justice, (4) business ethics, (5) career orientation, (6) training; 1 dependent variable: intention to leave the organization. The proposed research model and hypothesis are as follows:

Figure 2.1: Research model of the topic



Source: Proposal of the research team

(H1) Commitment to the business has a negative effect on the intention to leave the business of the life insurance agent.

(H2) Job satisfaction has a negative effect on the intention to leave the business of life insurance agents.

(H3) Equity in the organization has a negative effect on the intention to leave the business of life insurance agents.

(H4) Ethical values have a negative effect on the intention to leave the business of life insurance agents.

(H5) Career orientation has a negative effect on the intention to leave the business of life insurance agents

(H6) Training of insurers has a negative effect on intention to leave the business of life insurance agents

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3. RESEARCH METHODS

The authors conducted a review of case studies in the world and Vietnam on the factors affecting the intention to leave the business of life insurance agents. However, new studies only stop at testing the impact of one or a few factors, comprehensively testing the factors affecting the intention to leave the business of life insurance agents; In particular, Vietnam has not had any exploratory and experimental studies to assess the impact of factors on the intention to leave the business of Vietnamese life insurance agents. Therefore, in order to achieve the objectives and carry out the research tasks, the thesis uses a combination of qualitative research and quantitative research; in which, qualitative research done first is appropriate.

Qualitative research was carried out in-depth interviews with experts and agents. Information collected from in-depth interviews in order to supplement and complete the research model to suit the reality of Vietnam; calibrate the scale and find the most suitable criteria to build the questionnaire.

Descriptive statistics method is used to process secondary data from available domestic and international sources (data from the Department of Insurance Management and Supervision, Vietnam Insurance Association, reports on summary of Vietnamese life insurance agents, life insurance agent development strategies of Vietnamese life insurers...) to assess the current situation of the life insurance market, the situation life insurance agent development model, analyzing the current situation and determining the reasons for leaving the business of Vietnamese life insurance agents.

The survey method is used to test the factors and determine the degree of impact of the factors on the intention to leave the business of life insurance agents in Vietnam.

The study uses two methods including Cronbach's Alpha coefficient analysis to evaluate the correlation between observed and total variables, and EFA factor analysis method to test the unidirectionality of each scale to eliminate remove inappropriate measurement criteria. Based on the results of Cronbach's Alpha coefficient analysis and EFA factor analysis, the thesis only retains highly reliable scales for subsequent analysis.

Building a regression equation to determine the impact of factors and the degree of impact of the factors on the intention to leave the business of Vietnamese life insurance agents.

4. RESEARCH RESULTS

The total number of agents present at the beginning of 2018 of the whole market was 621,151 people, in the year 321,616 people were recruited, the number of agents recruited increased by 51.8% compared to the number at the beginning of the year. However, the number of agents at the end of the year was only 723,316 people, the number of agents leaving the business or being fired (mostly leaving) 219,451 people; Therefore, the average number of agents in the year was only 672,234 people, the rate of agents leaving and dismissing in the year was very high, accounting for about 68.23% compared to the number of new recruiting agents, 32.6% compared to the number of agents. average for the year. Therefore, although recruiting a lot, but due to the large number of departures, the growth rate of the total number of agents at the end of the year compared to the beginning of the year was only 25%. On the other hand, revenue from fees for new exploitation of main products in 2018 reached VND 29,607 billion, so the average revenue of new exploitation of main products per agent is very low, only about VND 44.04 million. The results of this analysis show that the number of recruitment agents is very large, leading to businesses having to spend a lot of money on recruitment and training, but the return is not high.

Thus, the current development of life insurance agents in Vietnam shows that the recruitment volume is large but the turnover rate is very high, leading to low average exploitation productivity. The problem of recruiting, maintaining and developing life insurance companies is really a dilemma for the Vietnamese life insurance market, even for the big life insurance companies in the market. This situation significantly affects the quality and effectiveness of consulting, increases recruitment and training costs, and causes difficulties for the insurance business.

4.1. Reliability test

The study has performed the analysis of the scale using Cronbach's alpha reliability coefficient for each scale in turn and synthesized all the data required for the reliability coefficient analysis to be able to evaluate the overall performance for each scale. entire scale. The test results have confirmed that all 7 groups of factors have Cronbach's Alpha coefficient greater than 0.7 and correlation coefficient greater than 0.4. The test results of Cronbach's Alpha coefficient have confirmed the high reliability of the system of measurement criteria (measuring the factor to be measured) and the observed variables in each group of factors have a relationship with each other. The test results show that the scales are good and ensure the reliability for the research and later analysis. Data on Cronbach's alpha coefficient if the variable type (the largest) is smaller than the reliability coefficient, and satisfy both conditions for keeping the observed variable for the following analyses.

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Table 4.1: Results of evaluating the reliability of the scale of research components

Label	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Cronbach's Alpha "Organizational Commitment" = 0.920 N=6		
I will be happy to spend the rest of my career working at the Company	0.808	0.901
I really feel emotionally attached as "part of the family" to the Company	0.782	0.904
Currently, staying and working with the Company is necessary as I wish	0.686	0.917
One of the negative consequences of leaving the Company was that I had very little chance of finding another job	0.798	0.904
I really feel obliged to stay with the Company	0.746	0.909
Even with favorable conditions, I really feel it is not right to leave the Company right now	0.829	0.897
Cronbach's Alpha "Job Satisfaction" = 0.889 N=9		
I feel satisfied with the Company's commission policy	0.618	0.879
In the Company, good people are entitled to equal promotion opportunities and in accordance with their contribution to the Company.	0.609	0.880
My immediate superior is a talented, fair-minded person who cares about the feelings of his subordinates	0.683	0.874
I am really satisfied with the benefits that I receive from the Company, the welfare packages we receive from the Company are fair	0.487	0.888
I successfully complete a job, the Company has a well-deserved recognition reward for me	0.649	0.876
The Company's regulations and procedures are convenient for me to do my job	0.696	0.872
I love the people who work with me at the Company	0.729	0.869
I love to do and take pride in the work I do at the Company	0.697	0.873
The working environment in my Company is professional: the Company's goals are clear to me, the work is fully explained and help is provided when needed.	0.616	0.879
Cronbach's Alpha "Organizational Justice" = 0.925 N=4		
The Company's work processes are consistently and unbiased, in compliance with ethical standards	0.853	0.894
My income at the Company reflects my work efforts and my contributions to the Company	0.814	0.914
Company leaders treat me politely, respectfully, frankly	0.868	0.888
Company leaders often inform detailed and timely information to employees	0.802	0.910
Cronbach's Alpha "business ethics" = 0.885 N=4		
To be successful in my Company requires certain ethical compromises.	0.795	0.835
Senior leaders in my company have an unwritten rule that unethical behavior will not be tolerated	0.784	0.838
If a leader in my Company is found to have unethical behavior for personal gain, they will be immediately reprimanded.	0.709	0.867
If a leader in my Company is found to have unethical behavior to benefit the Company, they will be immediately reprimanded.	0.712	0.867
Cronbach's Alpha "career orientation" = 0.767 N=4		
The Company's career orientation helps me realize the interesting and humane career of a life insurance agent	0.519	0.736

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The company's career orientation helps me realize that life insurance agent profession is challenging and requires long-term commitment.	0.719	0.602
The Company's career orientation helps me to be aware of my career path when sticking with the Company	0.507	0.742
The Company's career orientation helps me to realize that the Company is a place worth my dedication more than other companies	0.535	0.728
Cronbach's Alpha "training" = 0.932 N=8		
Company training trains me to always have a positive attitude to avoid negative emotions and depression	0.722	0.927
Company training helps me master the necessary sales skills	0.838	0.918
Company training helps me understand the terms and conditions of each insurance product of the Company	0.818	0.919
Company training helps me understand the outstanding features of the Company's products compared to competitors	0.801	0.921
The Company's training helps me understand the Company's growth, strengths, weaknesses and position in the market.	0.743	0.925
Company training made me aware of the Company's goals and expectations	0.679	0.929
Company training is a good combination of focused training and on-the-job training	0.797	0.921
Company training is arranged in a reasonable time and duration	0.789	0.922
Cronbach's Alpha "Intent to leave the organization" = 0.957 N=4		
I will probably quit my job in the Company within the next 3 months	0.874	0.956
I will probably quit my job in the Company within the next 6 months	0.912	0.938
I will probably leave the Company within the next 12 months	0.912	0.938
I will probably leave the Company within the next 24 months	0.925	0.937

Source: Data processing results of the research team

4.2. Exploratory factor analysis

The analysis of Cronbach's Alpha reliability coefficient in the previous section helped confirm that the reliability of these scales is completely consistent with the research topic. However, the analysis of Cronbach's Alpha reliability coefficient is only performed according to each scale. This result is not certain that the scales are not related to each other. In order to assess the suitability of the scale system, Exploratory Factor Analysis (EFA) was performed for all 39 observed variables of 7 factor groups.

Table 4.2. Extract the EFA exploratory factor analysis table common to all independent variable scales

KMO				0.892					
Sig.				0.000					
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.660	24.743	24.743	8.660	24.743	24.743	5.657	16.163	16.163
2	5.311	15.175	39.918	5.311	15.175	39.918	4.898	13.995	30.157
3	3.145	8.987	48.904	3.145	8.987	48.904	4.507	12.876	43.033
4	2.854	8.155	57.059	2.854	8.155	57.059	3.398	9.708	52.741
5	2.533	7.238	64.298	2.533	7.238	64.298	3.269	9.340	62.081
6	1.627	4.649	68.946	1.627	4.649	68.946	2.403	6.866	68.946
7	.822	2.350	71.296						
...						
35	.006	.017	100.000						
Extraction Method: Principal Component Analysis.									

Source: Data processing results of the research team

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The results of exploratory factor analysis showed that the whole component of the scale of independent variables had a total variance extracted from 68.946% > 50%. The KMO index is 0.892 to ensure the requirements, in addition, sig also gives the result of 0.000 < 0.05. The results of the factor rotation matrix of 35 observed variables converge on 6 factors including the group of factors on training, job satisfaction, commitment to the business, fairness in the enterprise, career orientation with The factor weights are all 0.5. Thus, from the above analysis results, it is confirmed that the research scale system is appropriate.

4.3. Regression analysis

In order to determine the level of impact of each group of factors on the intention to leave an enterprise, the research uses multivariate regression method. The multivariable regression has the following form:

$$\text{Intent to leave} = a_0 + a_1 \text{ Organizational Commitment} + a_2 \text{ Job Satisfaction} + a_3 \text{ Organizational Justice} + a_4 \text{ Business ethics} + a_5 \text{ Career orientation} + a_6 \text{ Training}$$

In there: $a_0, a_1, a_2, a_3, a_4, a_5, a_6$: Are regression coefficients

Hypothesize:

Ho: The factors have not relationship with each other.

H1: The factors have a relationship with each other.

Choose significance level = 0.05 corresponding to 95% confidence level.

The results of the ANOVA test show that the F-test value reaches the value of 134.296 at the significance level sig = 0.000 < $\alpha = 0.1$. Thus, hypothesis H0 is rejected, hypothesis is accepted, that is, 6 components of independent variable Organizational Commitment, Job Satisfaction, Organizational Justice, Business ethics, Career orientation, Training and dependent variable Intent to leave have each correlation relationship. So the model fits the data set and can be generalized to the population.

Table 4.3. Results of multivariate regression model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	9.371	.273		34.273	.000		
Organizational Commitment	-.512	.044	-.401	-11.710	.000	.677	1.478
Job Satisfaction	-.575	.047	-.367	-12.308	.000	.891	1.122
Organizational Justice	-.226	.034	-.203	-6.651	.000	.852	1.174
Training	-.151	.042	-.115	-3.617	.000	.780	1.281
Business ethics	-.150	.034	-.132	-4.440	.000	.903	1.108
Career orientation	-.112	.054	-.068	-2.081	.038	.752	1.330

Source: Data processing results of the research team

The regression coefficients of the factors of commitment to the business, job satisfaction, fairness in the enterprise, corporate ethical values, career orientation, and training are all marked. Negative and $R = 0.799 > 0$ shows that these components have a negative impact on the intention to leave the business. Thus, the hypothesis of the research model is accepted that the variables of commitment to the business, job satisfaction, fairness in the business, corporate ethical values, career orientation, training have negative correlation with intention to leave the business. So the hypotheses H1, H2, H3, H4, H5, H6 are tested.

The results of the investigation data processing confirm that the regression equation for the standardized Beta coefficients is as follows:

$$\text{Intent to leave} = (-0.401) \text{ Organizational Commitment} + (-0.367) \text{ Job Satisfaction} + (-0.132) \text{ Organizational Justice} + (-0.203) \text{ Business ethics} + (-0.068) \text{ Career orientation} + (-0.115) \text{ Training}$$

5. DISCUSS THE RESULTS

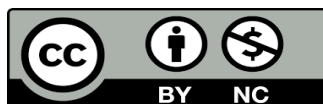
The results of multivariable regression analysis confirmed that 6 groups of factors such as commitment to the business, satisfaction with the business, fairness in the enterprise, corporate ethical values, career orientation, and training all have an impact. negative for exit intention. Table of regression results show that all factors have statistical significance less than 5%. Among the 6 groups of factors, the commitment to the enterprise with the largest Beta coefficient is -0.401 (t= -11,710 and Sig < 0.05); job satisfaction with Beta coefficient of -0.367 (t= -12,308 and Sig < 0.05); equity in the enterprise with a Beta coefficient of -0.132 (t=-4.440 and

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Sig < 0.05); ethical value with Beta coefficient of -0.203 (t= -6.651 and Sig <0.05); ethical value with Beta coefficient of -0.203 (t= -6.651 and Sig <0.05); career orientation with Beta coefficient of -0.068 (t= -2.081 and Sig < 0.05); training with a Beta coefficient of -0.115 (t= -3,617 and Sig < 0.05). The results of this study are in agreement with the results confirmed in the qualitative research and the review study. In the context of research in Vietnam, the results of the analysis of survey data show that commitment to the business, job satisfaction, and corporate ethical values are confirmed by the test results to have the greatest impact and then are the elements of equity in the business, training and career orientation, respectively.

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Study of Electronic Judgment Based on Digital Constitutionalism



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ABSTRACT: This study aims to see and describe the practice of electronic justice in Indonesia based on the Digital Constitutionalism approach, as a concept that tends to be new, Digital Constitutionalism in its development also accommodates the due process of online in scientific discourse. This research is a normative legal research using a statutory and conceptual approach. Based on the results of the study, it is known that the practice of electronic justice in Indonesia is currently still using procedural law guidelines which are basically conventional procedural law plus the internal regulations of the judiciary. Meanwhile, the development of electronic justice that utilizes technological advances is not enough to use the conventional procedural law base in its implementation because it is annulled yet oriented to the protection of Human Rights as conceptualized in the Digital Constitutionalism discourse, which includes the due process of online. So the regulation of electronic justice in the future must be based on Digital Constitutionalism, which includes knowing the due process of online by prioritizing the protection of human rights in a virtual scope from the provider of electronic judicial technology facilities.

KEYWORDS- Electronic Justice, Digital Constitutionalism, Due Process of Online, Human Rights, Indonesian Legal System

I. INTRODUCTION

The classic adage states "*ubi societas, ibi ius*", where there is society, there must be law. From this adage, it is read that the law always goes hand in hand with the development of society. Paul Scholten stated that the legal system is an open system, namely a system which by its original nature is not finished and will not be finished, because the system is the basis of all decisions that add new things to the system (Scholten, 1993:103). "law is the same society", so "new social relations will form new regulations" (Apeldoorn, 1986:18). Thus, the opinion that the law always lags behind the pace of community development (*het recht hinkt achter de feiten aan*) must be interpreted as a written law (rules, statutory regulations), which indeed becomes a static document once the hammer is ratified. The law as principles and moral values will always move dynamically following the development of society.

The rate of development of information technology in the Uber Civilization certainly has an effect on the State Administrative Court. Previously, case administration was carried out manually which took a long time and had high costs, information technology has accelerated, simplified and reduced the cost of administering cases within the State Administrative Court. If in the beginning it was a change from a manual typewriter to a computer, now it has developed further towards digitization in the execution of judicial tasks. For case handling, there is a Case Investigation Information System (SIPP); for personnel administration, there is a Personnel Information System (SIKEP); for supervision, there is a Surveillance Information System (SIWAS); as well as various other information systems developed by the Work Units at the First Level and Appeals such as the Integrated Public Service (Excellent Court Services) developed by various judicial systems, especially in Indonesia.

The idea of using information technology for judicial tasks is currently growing rapidly towards Electronic Courts (e-Court), where information technology is utilized in case administration and the implementation of procedural law. In comparison, in Australia there is already an Online Dispute Resolution, where litigants can settle their disputes online (Sudarsono, 2018). In the United States, since 1999, Public Access to Electronic Records (PACER) has been initiated, there is also a Case Management and Electronic Case Files (CM/ECF) system, and various uses of information technology to support judicial tasks. In India, The Supreme Court of India on May 10, 2017 has launched the Integrated Case Management Information System (ICMIS), and will soon launch an information system for handling crimes that is integrated with the Indian Police in the form of Crime and Criminal Tracking Network and Systems (CCTNS) (Gupta et al., 2014; Yadav et al., 2020).

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In the Indonesian context, this has indeed emerged and is practiced in various judicial practices, both at the regional court level and at the Supreme Court (MA) or the Constitutional Court (MK) and even in several institutions there are internal regulations that were formed to accommodate this. It's just that there are still some basic questions from these provisions, for example, what is the legal basis for the implementation of the digital justice practice? Is it enough just to be regulated at the level of internal regulations of the Supreme Court or the Constitutional Court? It is important to question this, because talking about the judicial system cannot be separated from the Due Process of Law which basically collides itself with human interests or the human rights of the community (Reksodiputro, 1994:27).

Thus the discourse on the technological approach in law is indeed quite fast in tandem with the development of technology itself. In the context of judicial institutions that use an electronic technology approach in carrying out judicial duties, it is said that this approach is very useful in preventing corruption and maladministration in the judiciary. For example, the Application Directory of Decisions, where the Decisions of Judges/High Judges/Supreme Judges are published and announced online have been proven to reduce corruption that is carried out by utilizing decision information. Likewise, the Information and Case Investigation System (SIPP) application is very helpful for judicial officials in completing case administration, so that there are no more maladministration complaints such as missing case files, unclear trial dates and events, to very long case minutes.

But that's not enough, today's world has also changed along with technological advances. One of them is the emergence of the Digital Constitutionalism discourse in the development of world constitutional law, which is often referred to as new constitutionalism (Celeste, 2022). Where the most substantive thing in the discussion about Digital Constitutionalism is the Due Process Online, which is conceptually different from the principle of Due Process of Law in general. The question then is whether the practice of electronic justice regulated in the current internal regulations of the judiciary has prioritized and guaranteed the Due Process Online as stated in the Digital Constitutionalism discourse?

II. RESEARCH METHODS

This research is a normative legal research using a statutory approach and a conceptual approach (Saputra et al., 2021). Conceptually what is meant in writing this law is the concept of Digital Constitutionalism which is developing in the global constitutional law community (Efendi & Ibrahim, 2018), then the concept is dissected in such a way in order to see whether the current practice of electronic justice in Indonesia is based on the concept of Digital Constitutionalism. Normative Legal Research is a legal research conducted by examining library materials or secondary data (Widodo, 2022). Normative legal research is also known as doctrinal legal research. Normative legal research is a process to find a rule of law, legal principles, and legal doctrines in order to answer the legal issues faced. In this type of legal research, law is often conceptualized as what is written in legislation or the law is conceptualized as a rule or norm which is a benchmark for human behavior that is considered appropriate.

III. RESULTS AND DISCUSSION

A. Due Process of Online

Article 28D paragraph (1) of the 1945 Constitution states that everyone has the right to recognition, guarantees, protection and fair legal certainty and equal treatment before the law. This article shows two important principles, namely due process of law and the principle of equal treatment before the law. Mardjono Reksodiputro stated that the term due process of law is simply translated with the term fair legal process. The opposite of the due process of law is an arbitrary process, for example, only based on the power of law enforcement officials. Due process of law is often misinterpreted in its meaning, this is because the meaning and nature of a fair legal process is not only in the form of the application of law or legislation which is assumed to be formally fair, but also contains guarantees of the right to independence of a citizen (Reksodiputro, 1994).

To create a due process of law, judicial freedom is very important. The judiciary must be completely free from all interests including from the influence of certain castes, classes, or groups. The absence of judicial freedom causes the due process of law to be meaningless. Judicial freedom requires an honest and impartial trial, judges in carrying out their profession do not discriminate between people (Hamzah, 1988:120). In the context of the Criminal Procedure Code, the implementation of the concept of due process of law, according to Reksodiputro, is reflected in the principles of the Criminal Procedure Code, namely general legal principles and specific legal principles.

General legal principles include; a) equal treatment in public without any discrimination; b) presumption of innocence; c) the right to obtain compensation (compensation) and rehabilitation; d) the right to obtain legal assistance; e) the right of the defendant's presence in court; f) free trial and carried out quickly and simply; g) courts that are open to the public. Meanwhile, specific legal principles include: (1) violations of individual rights (arrest, detention, search, and confiscation) must be based on

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law and carried out with a (written) warrant; (2) the right of a suspect to be informed of his suspicions and charges against him; and (3) the obligation of the court to control the implementation of its decisions.

The due process of law contains two important principles, namely the principle of equal treatment before the law (equality before the law) and the principle of presumption of innocence (Tahir, 2010:50). The principle of equal treatment before the law means that every citizen, including the suspect/defendant, must be given the same opportunity to exercise the rights that have been determined by law, such as the right to obtain legal assistance, the right to provide information legally. Freedom and the right to be tried by an honest and impartial tribunal (Phillipson et al., 2014). While the principle of presumption of innocence means that every suspect and defendant must be considered innocent before his guilt is proven in court and stated in a decision that has permanent legal force (Supardjaja, 2002:284).

Simply put, the purpose of the due process of law is to minimize the arbitrariness of the state against the community in the judicial process because in the conventional judicial process, especially in the scope of law with a public dimension, the state vis a vis the community.

This is different from the due process of online, the principle that was born in conjunction with the Digital Constitutionalism discourse states that in a digital society, the state is not the only dominant actor whose power can directly affect individual rights. Private companies creating, managing and selling digital technology products and services are the new Leviathan of the digital age. Laidlaw, speaking specifically about Internet Service Providers, and specifically about search engines, aptly defines these actors as 'online gatekeepers' (Laidlaw, 2008). In the case of search engines, their power to control access to information becomes clear. Removing, or simply downgrading search results is tantamount to being condemned to digital non-existence, consequently limiting an individual's right to access publicly available information.

More generally, however, Laidlaw's description fits well across categories of tech companies. By controlling access to digital technology, they can shape the way individuals use these instruments. In this way, they have the potential to influence the exercise of our basic rights, not much different from how nation-states do (Jørgensen & Pedersen, 2017; Suzor, 2019; MARONI, 2021).

In this context, there is a debate about whether, to what extent, and how to apply the existing constitutional standards governing the exercise of state power to these private actors (technology companies) (Olsen et al., 2021). As seen in the previous chapter, the constitutional system emerged to limit the power of the dominant actor and to protect the basic rights of individuals. Their historical mission, however, aims to overcome the power of the state. Existing constitutional norms do not articulate principles to limit the power of private entities. However, given the similarities between the ways in which the state and private companies can affect individual rights, one is intellectually tempted to apply these principles to the private sector as well, especially the private sector whose performance orientation is towards the basic principles of society.

From a legal point of view, private actors are not formally bound by international human rights (Celeste, 2022). It is the duty of the state to ensure that these rights are also protected by private entities. In 2008, UN Special Representative John Ruggie issued a document setting out guiding principles on business and human rights, called the 'Ruggie principles'. This text not only reaffirms the obligation of the state to prevent human rights violations committed by private actors but also vigorously affirms the responsibility of private entities to protect human rights. Although this document is not legally binding and therefore imposes only a moral obligation on private actors, it witnessed the start of a legal reaction against the power of private entities.

Such is the difference between the principle of due process of law and due process of online, where in the due process of online the view is that the private sector is also considered as a party that can commit acts of human rights violations through their performance orientation orientation. One of the electronic service providers from the judicial practice is a private party, for example will the privacy of justice seekers be protected by these service providers? This is important to discuss because it concerns the human rights of justice seekers.

B. Electronic Judicial Arrangements Based on Digital Constitutionalism

The current practice of electronic justice in Indonesia is basically still using the conventional procedural law base, and usually additional arrangements are formed at the level of the internal rules of each institution that still lack attention to the concept of due process of online which in fact threatens the basic rights of justice seekers. In more general judicial practice, for example, since the issuance of Supreme Court Regulation Number 1 of 2019 concerning the Administration of Cases and Trials in Electronic Courts (Supreme Court Regulation Number 1 of 2019), through the Supreme Court Regulation not only case registration can be carried out electronically. Online or known as e-court, but trials can also be conducted electronically, namely e-litigation (Putra, 2020).

Therefore, it is time for the practice of electronic justice in Indonesia to be regulated in rules at the level of separate legislation with content that pays attention to the provisions in the due process of online. This can be taken by imitating the

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electronic judicial arrangement in the United States, which has contained provisions regarding electronic justice through rules at the level of statutory regulations. In the United States, the implementation of electronic trials in the United States has been carried out since 1998. The Administrative Office of the United States Courts reports that there are dozens of courts in various states of the country that have used information technology in the form of video teleconferences or electronic trials. The teleconference trial was carried out for various trial agendas, for example: giving testimony, trial examination by judges, and counseling. The terms used regarding electronic justice in the USA are Virtual Courts, Virtual Courtrooms, and Virtual Courthouses (Veselovska et al., 2021).

The development of justice in the United States is influenced by the dissatisfaction of justice seekers with the existing legal system, because seeking justice takes a long time and is expensive. Therefore, the Federal Civil Justice Reform Act 1990 carried out judicial reform with the concept of digitization after the creation of computer chips. The use of information technology makes the judiciary continue to grow rapidly (Adisti et al., 2021).

The first state to conduct a cyber court trial, was the state of Michigan. Based on House Bill 4140 which was approved in November 2001 and passed as Public Act 262 of 2001 on January 9, 2002, cyber court is intended for cases relating to the use of technology and high-tech business, in which cases are more effectively tested. And tried through computer media rather than the method of examination in the courtroom. Parties such as jurors, defendants, lawyers and judges do not have to be in the courtroom but can use video conference as a medium of communication in the trial examination process.

IV. CONCLUSIONS

The practice of electronic justice in Indonesia currently still uses procedural law guidelines which are basically conventional procedural law coupled with internal judicial regulations, while the development of electronic justice that utilizes technological advances is not sufficient to use conventional procedural law bases in its implementation because it is annulled and has not been oriented to the protection of rights. Human Rights as conceptualized in the Digital Constitutionalism discourse, which includes the due process of online. So the regulation of electronic justice in the future must be based on Digital Constitutionalism, which includes knowing the due process of online by prioritizing the protection of human rights in a virtual scope from the provider of electronic judicial technology facilities.

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Relationship between Agility, Speed, Leg Muscle Strength, Dynamic Balance with *Mawashi Geri* Kick Accuracy in Karate



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ABSTRACT: This study aims to examine the relationship between agility, speed, leg muscle strength, dynamic balance and the accuracy of the mawashi geri kick in karate. This research uses correlational research method. The object of this research is female athlete Forki Wonogiri. The data collection technique used purposive sampling with a population of 149 karate athletes and a sample of 60 female karate athletes aged 12-18 years. The research instrument used a dogging run test (agility), a 30 meter run test (speed), a leg dynamometer test (leg muscle strength), and a modified bass test (dynamic balance). The results showed that there was a significant relationship of 0.747 and the interpretation of the correlation coefficient value that the accuracy of the mawashi geri kick had a strong positive relationship with a contribution of 60%. The conclusion of this study there is a negative relationship between agility and speed, a positive relationship between leg muscle strength and dynamic balance with the accuracy of the mawashi geri kick, which is significant so that the hypothesis is accepted. In order for the Training Center activities, especially the mawashi geri kick to be successful, a senpai or trainer should provide exercises through movements that can improve agility, speed, leg muscle strength, and dynamic balance by doing these exercises on a scheduled or routine basis. so that it can increase stamina and karate sports performance for the better.

KEYWORDS: Agility, Speed, Leg Muscle Strength, Dynamic Balance, Mawashi Geri Kick, Karate

INTRODUCTION

The characteristics of FORKI (Indonesian Karate-Do Sports Federation) in terms of best achievements 1, 2, 3 at the provincial level and the best 1, 2, 3 at the national level for the kumite and kata categories (Slankamenac et al., 2021). The main characteristic of the development of the sport of karate achievement is that it is always far-sighted to achieve high achievements towards the international level (Doder et al., 2021). The coaching of FORKI Wonogiri athletes with the Performance Training Center (TC) training is carried out Monday - Friday and Saturday - Sunday with independent training. In the performance development training, starting from the category of training stages \pm 2-3 years, formation training stages \pm 2-3 years, and preparatory training stages \pm 3-4 years at the Wonogiri FORKI Dojo in coaching for a period of 8-10 years (Krkeljas & Kovac, 2021). Based on the results of observations, karateka still has balance problems when doing mawashi geri kicks such as the hip (kime), karateka often falls because the footstool is not balanced so that when kicking the feet often stand on tiptoe, or the foot posture is not symmetrical. The novelty of the research is the relationship between agility, speed, leg muscle strength, and dynamic balance on the test and measurement abilities of FORKI Wonogiri athletes. A series of exercises for agility, speed, leg muscle strength, and dynamic balance so that FORKI Wonogiri athletes can improve their physical abilities. The precision of the mawashi geri kick as the formation of technique and movement.

Karate is a fighting sport that will be making its Olympic debut at the 23rd Olympics in Tokyo 2020. Both men's and women's categories will be held in two events, kata (a form of karate) and kumite (fighting). Karate has seen a fairly rapid increase in athlete registrations for World Karate Federation competitions. The accuracy of mawashi geri kicks in karate competitions is accomplished precisely (knowing the data from the international court karate rulebook that kicks in the head carry three points, and in the body two points), giving the lead over the total score to determine the winner in kumite. The main purpose of the mawashi geri kick is to attack the opponent and cut off the opponent's attack. Physical condition is an element that strengthens and maintains health as well as develops the physical skills needed in the accuracy of the mawashi geri kick. The physical training system in law enforcement agencies involves general physical exercise and self-defense tactics. Schedule of training and/or matches aimed at improving player readiness, and increasing the likelihood of winning matches. The physical

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demands and high training load compared to club settings may result in higher injury rates during the national team training camp (Alan et al., 2018). Thus, to make all players available to train and compete before international competitions it is important to align injury risk factors (e.g., accumulation of fatigue, reduction. If this is indeed the case, coaches are still encouraged to use complementary training strategies to improve physical qualities (agility, muscle strength) limbs, speed, and balance) which can improve the athlete's ability to tolerate high workloads and greater week-to-week changes (Arede et al., 2022).

Agility is an important skill for both attackers and defenders in invasion sports (Young et al., 2021). It is generally accepted that agility has both a movement and a reactive element, whereas a predetermined direction change task without a requirement to react to a stimulus is described as the ability to change direction. In context, the most important components of agility are; perception, decision making, and changing direction speed (Triprayogo et al., 2020). Agility has a very important role in the accuracy of the mawashi geri kick, especially in avoiding the opponent's attack and also starting attacks towards the opponent. The structure of the agility component in invasion sports is well known, there is no evidence to what extent the perception and decision-making processes and the motor component contribute to agility in different types of sports (Prayogo et al., 2021). From a practical point of view, it would be interesting to know whether the contribution of the sensory and motor components depends on the given structure of agility testing (Horníková et al., 2021).

Speed is one of the basic components needed for sports biomotor related to athlete strength (Eler & Acar, 2018). The speed that an athlete can reach before changing direction determines how many braking impulses need to be delivered. In game scenarios there is no distance-defined 'approach', so to understand loading demands, we first need to evaluate the athlete's ability to accelerate and decelerate within a defined distance (Falaahudin et al., 2020). It will measure the typical speed an athlete can reach a short distance (relative to their maximum sprint speed), and the stopping distance for a given speed (Graham-Smith et al., 2018). Speed with complex abilities, because in general speed is the ability that allows karate athletes to move as quickly as possible at a certain level of resistance. It is very important to understand speed performance and speed driving elements in karate performance competition. Although its duration is relatively short the precision of the mawashi geri kick is characterized by maximum intensity. So that only those who are able to survive in conditions of athlete speed with a 30 meter running test practice. When performing speed, starting with speed activities and acceleration capabilities are very important. While covering the distance the ability to sprint is done to change the value of the competition (Çetin & Koçak, 2022).

Leg muscle strength is one of the physical components of muscle mass that requires physical exercise and nutrition (Sheppard et al., 2019). Without good leg muscle strength, athletes cannot perform mawashi geri kicks. In this case, the strength of the leg muscles requires accuracy in doing the mawashi geri kick, because when doing the mawashi geri kick movement, especially the leg muscle strength, it will use its muscles to accept the load within a certain working time. Loss of muscle mass, strength, and functionality seems to persist after the recovery process is complete. Leg muscle strength has higher physical function, and lower pain levels (Winther et al., 2018). The measure of leg muscle strength with the precision of the mawashi geri kick has important functional implications, the degree of development of sufficient strength required to perform fast and strong muscle contractions, as observed during walking (Mentiplay et al., 2018).

Dynamic balance is the ability to keep the neuromuscular system in motion (Mahara et al., 2022). Dynamic balance is a vital factor associated with lower extremity injury and performance in athletes. Balance with ability to maintain dynamic integration of interior and exterior forces during motor action tasks. The reason for dynamic balance is the center of gravity to be transported in reaction to muscle activity. This muscle activity can also occur through external or internal disturbance supply (Abhilash et al., 2021). Dynamic balance refers to maintaining balance during movement or reestablishing balance through rapidly and successively changing positions. In play, players often perform movements that extend one foot beyond their base of support during intense lateral running, sprinting, and jumping movements, usually with a change of activity every 4-6 seconds.

The skill requirements and environmental demands of the sport may pose different challenges to the sensorimotor system which can cumulatively affect the balance ability of the trained athlete. Balance can be an important aspect of performance and risk of injury in a variety of sporting activities. Supported by current evidence, it appears that poor balance and inappropriate postural control are associated with an increased risk of recurrent sprains that can affect athletic performance and activities of daily living (Farzin et al., 2020). Dynamic balance often involves the completion of a functional task without any tools being used. Many tests have been developed to assess dynamic balance. The balance test is the most sensitive test for balance dynamics (Megha et al., 2022). Athletes who are doing the mawashi geri kick movement in unstable control will need a good balance to maintain the mawashi geri kick movement. In addition, good balance makes movement more effective and efficient (Zhang et al., 2020).

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The mawashi geri kick is an attack that uses one foot, the trajectory is forward with the body position facing the front, with the base of the toes on the inside, targeting the solar plexus and chin (R. Muhammad, 2018). Mawashi geri kicking ability is influenced by various factors such as physical condition, technique, mental and motivation. Mawashi geri which is often used during committee matches and from other supporting factors such as mentality during matches. For this reason, several factors are needed, namely agility, speed, leg muscle strength, and dynamic balance in launching a mawashi geri kick. The working principle of Mawashi geri is simple throwing the legs forward, after first lifting the knees to the level of the target (F. Muhammad, 2017).

Based on the results of research that has been carried out by (Hidayat, 2021) describes the results that the effect of hurdle jump exercises on the ability of mawashi geri in karate in Megarezky university students. The initial test (pretest) of the experimental group's mawashi geri ability, then data analysis of the experimental group found that the fastest kick ability was 15 kicks and the lowest was 7 kicks, so the average ability of mawashi geri was 12.2. After the pretest data was taken, the experimental group ran an exercise program for 6 weeks and then the test was repeated, namely the posttest (final test). Based on the posttest results, the fastest kick value was 19 kicks and the lowest kick value was 10 kicks with an average value of 14.5. Based on the results of the pretest (pretest) of the control group, then data analysis of the control group found that the highest ability of mawashi geri was 16 kicks and the lowest was 7 kicks, so that the average ability of mawashi geri was 10.7. Then after 6 weeks without being given treatment in the form of exercise, a final test (posttest) was obtained, the highest score was 17 kicks and the lowest score was 8 kicks with an average of 11.6. Increasing the ability of mawashi geri by using hurdle jump exercises has an effect on increasing the ability of athletes, thus the ability of mawashi geri can be increased by using the hurdle jump training method.

METHOD

The research that has been done is a correlational study, carried out with a simple correlation analysis approach, which involves the independent variables of agility, speed, leg muscle strength, and dynamic balance (X) and the dependent variable is the result of the mawashi geri kick (Y) (Sugiyono, 2018). The research object was taken by purposive sampling technique. Data collection was carried out at the Girimarto Kodim Dojo, Girimarto District, Wonogiri Regency. The samples of this study were female athletes aged 12-18 years and had 2 years of training experience, intermediate athletes and professional athletes (advanced).

All research objects are required to follow all the series of research carried out. The instruments used to collect data were a dogging run test to measure agility, a 30 meter run to measure speed, a leg dynamometer to measure leg muscle strength, and a modified bass test to measure dynamic balance. One of the important tasks in research is to analyze the data obtained. Before the data is analyzed, it is required to collect what data is needed in a study. Therefore, the data collection method used in this research is test and measurement. This study uses several techniques to support the research. According to (Lacy & Williams, 2018) the development of instruments in physical conditions are: Validity, Reliability, Objectivity, Administrability.

Hypothesis testing was carried out to determine whether there was a relationship between agility, speed, leg muscle strength, dynamic balance and the accuracy of the mawashi geri kick. Furthermore, it will be known whether the pre-determined hypothesis will be accepted or not. Hypothesis testing in this study will use correlation analysis, because to determine the relationship between 4 variables (X) and variable (Y). Techniques in correlation analysis have many kinds, namely using correlation techniques, namely Dimension Reduction, Kolmogorov Smirnov, and Product Moment to test the research hypothesis. Hypothesis testing using SPSS 23.0 for Windows software, after the output results come out, then the correlation coefficient interpretation will be carried out according to the guidelines below (Azwar, 2017):

RESULTS

The study was conducted at Kodim 18 Girimarto, one of the TC (Training Center) exercises in Wonogiri Regency, with the object of research as many as 60 female FORKI Wonogiri athletes taken by random sampling. FORKI Wonogiri is classified as an athlete who has a myriad of achievements in participating in district, provincial and national championships.

Table 1 shows the results of agility, it is known that there is a significant relationship of 0.932 and has an interpretation of the correlation coefficient value that agility has a very strong negative relationship with a contribution of 60%.

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Table 1. Agility Frequency Distribution

Number	Agility	Frequency	Percentage (%)	Norm
1.	< 12,42	36	60	Very Good
2.	12,43 – 14,09	14	23,3	Good
3.	14,10 – 15,74	10	16,7	Adequate
4.	15,75 – 17,39	0	0	Less
5.	17,40 >	0	0	Very Less
	Total	60	100	

Table 2 shows the results of the speed, it is known that there is a significant relationship of 0.943 and has an interpretation of the correlation coefficient value that speed has a very strong negative relationship with a contribution of 58.33%.

Table 2. Speed Frequency Distribution

Number	Speed	Frequency	Percentage (%)	Norm
1.	< 4.50	35	58,33	Very Good
2.	4.51 - 4.96	14	23,33	Good
3.	4.97 – 5.40	11	18,34	Adequate
4.	5.41 – 5.86	0	0	Less
5.	5.87 >	0	0	Very Less
	Total	60	100	

Table 3 shows the results of leg muscle strength, it is known that there is a significant relationship of 0.723 and has an interpretation of the correlation coefficient value that leg muscle strength has a strong positive relationship with a contribution of 45%.

Table 3. Frequency Distribution of Leg Muscle Strength

Number	Leg Muscle Strength	Frequency	Percentage (%)	Norm
1.	219.5 >	27	45	Very Good
2.	171.5 – 219	21	35	Good
3.	127.5 – 171	12	20	Adequate
4.	81.5 – 127	0	0	Less
5.	< 81	0	0	Very Less
	Total	60	100	

Table 4 shows the results of dynamic balance, it is known that there is a significant relationship of 0.928 and has an interpretation of the correlation coefficient value that dynamic balance has a very strong positive relationship with a contribution of 51.7%.

Table 4. Dynamic Balance Frequency Distribution

Number	Dynamic Balance	Frequency	Percentage (%)	Norm
1.	81 – 100	31	51,7	Very Good
2.	61 – 80	20	33,3	Good
3.	41 – 60	9	15	Adequate
4.	21 – 40	0	0	Less
5.	< 20	0	0	Very Less
	Total	60	100	

Table 5 shows the results of the accuracy of the mawashi geri kick, it is known that there is a significant relationship of 0.747 and has an interpretation of the correlation coefficient value that the accuracy of the mawashi geri kick has a strong positive relationship with a contribution of 60%.

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Table 5. Mawashi Geri Kick Accuracy Frequency Distribution

Number	Mawashi Geri Kick Accuracy	Frekuensi	Percentage (%)	Norm
1.	88-100	36	60	Very Good
2.	71-87	10	16,6	Good
3.	54-70	14	23,3	Adequate
4.	37-53	0	0	Less
5.	20-36	0	0	Very Less
	Total	60	100	

Correlation test was conducted to determine the relationship between agility, speed, leg muscle strength, dynamic balance and the accuracy of the mawashi geri kick. Normality test was carried out by Kolmogorov Smirnov test. The data is normally distributed if $p > 0.000$.

Table 6. Normality Test with Kolmogrov Smirnov

Number	Variable	Value K-S Z	p(sig)	Description
1.	Agility (X1) with Mawashi Geri Kicking Accuracy (Y)	0,278	0,000	Normal
2.	Speed (X2) with Mawashi Geri's Kick Accuracy (Y)	0,302	0,000	Normal
3.	Limb Muscle Strength (X3) with Mawashi Geri Kicking Accuracy (Y)	0,346	0,000	Normal
4.	Dynamic Balance (X4) with Mawashi Geri's Punctuality (Y)	0,197	0,000	Normal

Table 6 shows the results of the normality test with Kolmogorov Smirnov from agility to the accuracy of the mawashi geri kick. Speed with mawashi geri kick accuracy is known that there is a significant relationship of 0.302 and has an interpretation of the correlation coefficient value that speed with mawashi geri kick accuracy has a low negative relationship with a significance > 0.000 . Leg muscle strength with mawashi geri kick accuracy is known that there is a significant relationship of 0.346 and has an interpretation of the correlation coefficient value that leg muscle strength with mawashi geri kick accuracy has a low positive relationship with a significance > 0.000 . Dynamic balance with mawashi geri kick accuracy is known that there is a significant relationship of 0.197 and has an interpretation of the correlation coefficient value that dynamic balance with mawashi geri kick accuracy has a very low positive relationship with a significance > 0.000 .

The agility and speed data have a negative and significant relationship with the product moment correlation test. While the data of leg muscle strength and dynamic balance have a positive and significant relationship with the product moment correlation test.

Table 7. Product Moment Correlation Test

Number	Variable	r_{xy}	p(sig)	Description
1.	Agility (X1) with Mawashi Geri Kicking Accuracy (Y)	- 0,816	0,000	Negative and significant relationship
2.	Speed (X2) with Mawashi Geri's Kick Accuracy (Y)	- 0,761	0,000	Negative and significant relationship
3.	Limb Muscle Strength (X3) with Mawashi Geri Kicking Accuracy (Y)	0,970	0,000	Positive and significant relationship
4.	Dynamic Balance (X4)			Positif and signifikan

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	with Mawashi Geri's Punctuality (Y)	0,581	0,000	relationship
5.	Agility (X1), Speed (X2), Muscle Strength (X3), Dynamic Balance (X4) with Mawashi Geri Kicking Accuracy (Y)	$\pm 0,975$	0,000	Significant negative and positive relationship

Table 7 shows the results of agility with mawashi geri kick accuracy, it is known that there is a significant relationship of 0.816 and has an interpretation of the correlation coefficient value that agility with mawashi geri accuracy has a very strong negative relationship with a significance > 0.000 . Speed with mawashi geri kick accuracy is known that there is a significant relationship of 0.761 and has an interpretation of the correlation coefficient value that speed with mawashi geri accuracy has a strong negative relationship with a significance > 0.000 . Leg muscle strength with mawashi geri kick accuracy is known that there is a significant relationship of 0.970 and has an interpretation of the correlation coefficient value that leg muscle strength with mawashi geri accuracy has a very strong positive relationship with a significance > 0.000 . Dynamic balance with mawashi geri kick accuracy is known that there is a significant relationship of 0.581 and has an interpretation of the correlation coefficient value that agility with mawashi geri accuracy has a moderate positive relationship with a significance > 0.000 . Agility, speed, leg muscle strength, dynamic balance with mawashi geri kick accuracy, it is known that there is a significant relationship of 0.975 and has an interpretation of the correlation coefficient value that agility, speed, leg muscle strength, dynamic balance with mawashi geri accuracy have a negative and positive relationship that very strong with a significance > 0.000 .

DISCUSSION

The results showed that agility and speed had a negative relationship and leg muscle strength and dynamic balance had a positive relationship with the accuracy of the mawashi geri kick so that the hypothesis was accepted. The results of this study are in accordance with research (Endrawan et al., 2020) that agility has a significant relationship. Agility in karate is one component that uses technique and movement, so strength is a determining factor. Agility is not only focused on speed in moving, but agility can move the limbs to perform a movement in the shortest time. So agility is always related to strength, reaction time, speed at a certain distance. This means that it can move quickly depending on the speed at the beginning of the movement, the body's ability to cover a certain distance. Agility is very important in kumite matches, especially in the mawashi geri kick with the back target to get 2 points. Athletes who have fast agility shown from the record time obtained are also shorter/slightly will increase the accuracy of the mawashi geri kick.

The results showed that there was a negative and significant relationship between speed and the accuracy of the mawashi geri kick, the faster the athlete ran 30 meters, the more precise the mawashi geri kick, so the hypothesis was accepted. The results of this study are in accordance with research (Madrugá-Parera et al., 2021) that speed has a significant relationship. Speed is one of the elements of physical condition that plays an important role, especially karate. Speed is the ability to move quickly and precisely from one place to another. Displacement of fast motion is a component of the speed of a person who is said to be able to make movements quickly, able to move his body to perform a kick attack when the opponent is off guard. Thus, the speed of movement will allow a karate athlete to master the mawashi geri kick and be able to attack the opponent. Athletes who have a speed of running 30 meters by showing a shorter time will increase the accuracy of the mawashi geri kick.

The results showed that there was a positive and significant relationship between leg muscle strength and the accuracy of the mawashi geri kick, the stronger the athlete in performing the leg dynamometer, the more precise the mawashi geri kick, so the hypothesis was accepted. The results of this study are in accordance with research (Ridwan & Putra, 2021) that leg muscle strength has a significant relationship. Leg muscle strength is a person's ability to use strength in the legs maximally in a short period of time. Technically the strength of the leg muscles is very important in the athlete's appearance in the karate sports he does. In addition, it also gives confidence in carrying out karate sports activities carried out in order to get an achievement as much as possible. Athletes who have leg muscle strength perform a leg dynamometer as indicated by a stronger high score, which will increase the accuracy of the mawashi geri kick.

The results showed that there was a positive and significant relationship between dynamic balance and the accuracy of the mawashi geri kick, the more balanced the athlete in performing the modified bass test, the more precise the mawashi geri kick, so the hypothesis was accepted. The results of this study are in accordance with research (Priya Pratama et al., 2018) that

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dynamic balance has a significant relationship. Dynamic balance is very important in the mawashi geri kick because of the athlete's movement in kumite matches, besides looking for gaps to attack the opponent by looking at the target of the kick being made. Dynamic balance is a physical condition that plays an important role in the ability to maintain body position in karate. Athletes who have dynamic balance in carrying out a modified bass test indicated by a more balanced high score will increase the accuracy of the mawashi geri kick.

CONCLUSION

The results showed that there was a significant relationship of 0.747 and the interpretation of the correlation coefficient value that the accuracy of the mawashi geri kick had a strong positive relationship with a contribution of 60%. The conclusion of this study there is a negative relationship between agility and speed, a positive relationship between leg muscle strength and dynamic balance with the accuracy of the mawashi geri kick, which is significant so that the hypothesis is accepted. In order for the Training Center activities, especially the mawashi geri kick to be successful, a senpai or trainer should provide exercises through movements that can improve agility, speed, leg muscle strength, and dynamic balance by doing these exercises on a scheduled or routine basis. so that it can increase stamina and karate sports performance for the better.

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The Effect of Plyometric Exercise on Running Ability in Elementary School Students



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ABSTRACT: This study aims to determine the effect of plyometric training on the running ability of 5th grade elementary school students. This research is included in the quantitative research type of experimental research. The quantitative method was chosen because the data were in the form of numbers and were analyzed based on statistics (Sugiyono). This study used a group pretest-posttest design. The research subjects were 5th graders at Padas Elementary School, Ngawi Regency with a population of 60 students. The sampling technique was random sampling with a sample of 20 students. The sample selection is based on students who have weaknesses in running, lack of understanding of basic running techniques. The data collection technique was carried out with a running test and then a score assessment was carried out. The test technique was carried out by giving a pretest before being treated and a posttest after being given plyometric treatment. The results showed that there was an effect of plyometric training on the running ability of the fifth grade elementary school students of Padas with a hypothesis test result of 1.08. The results of the pretest and posttest obtained significant results after plyometric exercises were applied. So it can be concluded that there is a significant effect between plyometric training on running ability.

KEYWORDS: plyometric exercise, running ability, elementary school

INTRODUCTION

Sport is a physical activity that is carried out with certain goals to be achieved and carried out using certain rules in a systematic and structured manner, such as with rules, target pulse rate when doing physical exercise, and the number of repetitions of motion in the form of repetitions, sets, etc (Jansson et al., 2019). Physical activity that is planned and structured to improve or maintain a person's physical fitness (Marini et al., 2021). Changes due to exercise exercises that are carried out regularly, structured and consistently provide beneficial changes for physical fitness. Sport is a form of activity to improve body freshness, namely physical and spiritual (Tarigan et al., 2021). Sports activities can form physically fit, disciplined and sporty people who form quality humans (Sinaga et al., 2022).

One of the sports taught in elementary school is running. Running is included in physical education learning (Librianty et al., 2021). Running is a forward movement to move the body as quickly as possible, from both feet when flying and not sticking to the ground or floor (Nopiyanto & Raibowo, 2019). Running is more dominant in requiring movement in the use of the legs. Physical education is a process that involves physical activity to improve the quality of individuals both physically and mentally (Stiyapranomo et al., 2022). Physical education has one branch, namely athletics. Athletics has several numbers including walking, running, throwing and jumping. Athletic learning begins at an early age which is summarized in the physical education curriculum. Athletic learning, especially running, is taught since children aged 6 years. The running numbers in the branch consist of short distance running, middle distance, long distance running or marathon, hurdles, and cross country running (Afrizal et al., 2017). Short distance running is done at full speed along the distance to be covered up to a distance of 400 meters. Running requires balance stability with both arms and legs (Widodo & Lumintuarso, 2017). Specifically, each arm counterbalances the leg, so that when the right leg swings forward, the left arm swings forward as well, and vice versa. In addition, the arms balance each other, to help maintain a stable balance in a good position and ensure that the arm swing moves back and forth from the side of the movement.

One of the running numbers taught in elementary schools is the 60 meter running number (Zikrur Rahmat, 2015). The 60 meter run is included in the short distance running that prioritizes maximum speed from start to finish which is divided into 3 parts, namely start, sprint movement and finish movement. The sport of running has been contested at the regional, national, and

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international levels. To get achievements in running competitions, it is necessary to have planned, tiered and programmed training, so that the results achieved are maximized. Running speed is influenced by flexibility, running technique skills and strength (Ayu Reza Adzalika, Soegiyanto, 2019). Short distance runners are known as sprinters. In order to record the smallest possible time, sprinters or short distance runners must master the basic movements of sprinting. Basic techniques in running such as leg movements, arm swing movements and posture (Sukendro & Ely Yuliawan, 2019). One of the achievements of running requires various considerations, calculations and careful analysis of the above factors that support running performance. The factors that determine and support running success can be used as the basis for developing an exercise program (Sumarsono, 2017).

The type of exercise that can increase strength and speed is the plyometrics method. Plyometric is one of the training methods that are often used by trainers to increase explosive power (Yukarda et al., 2019). Plyometrics are exercises that are done intentionally to improve the performance of an athlete, combining speed and strength training to create strength (Kobal et al., 2016). Plyometric exercises have been shown to be effective in increasing strength and running speed (Hansen & Steve, 2017). Plyometric exercises are more effective than resistance training and static stretching in improving upper and lower body performance. The potential value of combined fitness training in a conditioning program aimed at maximizing strength performance in the short term (Nugroho et al., 2021). Strong plyometric abilities can improve cardiovascular and neuromuscular fitness in inducing strength, sprint running speed, kicking, endurance and agility, in addition to improving muscle and tendon strengthening so as to avoid injury (Wang & Zhang, 2016).

METHOD

This research is included in the quantitative research type of experimental research. The quantitative method was chosen because the data were in the form of numbers and were analyzed based on statistics. This study used a group pretest-posttest design. The research subjects were 5th graders at Padas Elementary School, Ngawi Regency with a population of 60 students. The sampling technique was random sampling with a sample of 20 students. The sample selection is based on students who have weaknesses in running, lack of understanding of basic running techniques. The data collection technique was carried out with a running test and then a score assessment was carried out. The test technique was carried out by giving a pretest before being treated and a posttest after being given plyometric treatment.

RESULTS AND DISCUSSION

The description of the research data obtained that the data of students who were given a pretest and posttest were grade 5 students at SDN Padas, Ngawi Regency. The pretest was carried out at the beginning of learning sports, especially running. After the pretest was carried out, treatment was carried out in the pretest class to determine the effect of plyometrics on running speed. Treatment is carried out 5 times so that it can produce valid data. Posttest results were measured by statistical tests. Data analysis was carried out by normality test using chi squared (X^2). The results of the normality test are as follows.

Table 1. Normality test results

Test	N	Mean	X^2 Count	X^2 table 0,05	description
pretest	20	6,55	3,46	5,991	normal
posttest	20	13,80	3,80	5,991	normal

The table of normality test results shows that the results of the pretest and posttest have calculated values of 3.46 and 3.80, respectively, so it is stated that the data are normally distributed. The results of the homogeneity test stated that a significant value of 3.21 had a value greater than 0.05 so it was stated that the data had the same or homogeneous variance. Hypothesis testing to determine the effect of plyometric exercise on running. Based on calculations through the t-test application, the t-test value of 1.08 is smaller than the value of 2.06, then the hypothesis is accepted, so that it is stated that there is an effect of plyometric training on the running ability of 5th grade elementary school students at Padas.

This research was conducted in grade 5 by conducting a pretest on students before being given plyometric treatment to see their running ability. In the class before being given treatment, students were given a running test which was seen from the ability to run short distances. The test results were scored to determine the students' abilities and weaknesses in running. Based on the results of the pretest, it was obtained data that students who had the ability to run with low scores were due to the lack of exercise and the lack of long steps.

The learning process using the plyometric method was carried out for four meetings, with the first meeting being a basic ability test to determine treatment. The next meeting by giving direct plyometric treatment and teacher guidance. The treatment

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was carried out continuously in the next meeting with plyometric exercises to train strength and running ability. The results of posttest scores after being given treatment showed an increase before being given treatment.

Based on the results of the data obtained then analyzed statistically after comparing the results of the pretest and posttest obtained different results. The posttest result is higher than the pretest. This is inseparable from the use of the plyometric method in athletic learning, especially running. The use of the plyometric method is proven to be effective in improving running ability as seen from the posttest results of high students.

CONCLUSION

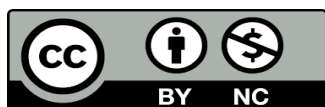
Based on research conducted for one month for four meetings, an increase was obtained before and after being given plyometric exercises. The results of the study showed that the students looked active while participating in the running training. The results of the pretest and posttest obtained significant results after plyometric exercises were applied. So it can be concluded that there is a significant effect between plyometric training on running ability.

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The Effect of Work Motivation and Work Discipline on Career Development and Employee Performance



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ABSTRACT: The research here will examine the effect of work motivation, work discipline and career development on employee performance. The population in this study were all employees of UPT Puskesmas Tembuku I as many as 51 employees. The sampling method used is saturated sampling, the entire population is used as a sample. The analytical technique used is a structural equation model (Structural Equation Modeling/SEM) based on Partial Least Square (PLS). Work motivation and work discipline have a positive and significant effect on career development. Work motivation and work discipline have a positive and significant effect on employee performance. Career development has a positive and significant effect on employee performance.

KEYWORDS: work motivation, work discipline, career development, employee performance.

I. PRELIMINARY

Performance is the result of work produced both in terms of quality and quantity of work and can be accounted for in accordance with its role in the organization or company, and is accompanied by abilities, skills, and skills in completing the work within a certain period. The success of an employee at work will be known if the company applies a performance appraisal system (Baroroh, 2012). Caroline & Susan (2014) stated that a leader who hopes to achieve maximum performance in his organization must pay attention to the factors that affect the performance of the employees themselves, one of which is career development.

Career development is a formal approach taken by organizations to ensure that people in the organization have the appropriate qualifications, abilities, and experience when needed (Regina, 2013). Clear career planning and development in the organization will be able to increase employee motivation in carrying out their work, thereby creating a sense of satisfaction in carrying out their work (Nugroho & Kunartinah, 2013). Research conducted by Arifin (2015) states that motivation has a positive and significant effect on employee performance. Employee work motivation is needed to improve the performance of the employees themselves. These employees do not have the enthusiasm and impetus to do all the tasks given if they are not given motivation.

Efforts to improve employee performance cannot be separated from employee discipline (Maharani, 2010). Discipline is an attitude of action and behavior that must be in accordance with existing regulations. If the employee is not disciplined, it will interfere with the work results and employee activities on a regular basis, the work should be completed on time. It is hoped that this discipline can be implemented properly so that it does not interfere with the company's activities, thereby improving employee performance.

Based on the above background, the authors are interested in conducting research with the title: "The influence of work motivation and work discipline on career development and employee performance".

II. STUDY LIBRARY

Abraham Maslow's Hierarchy of Needs Theory

This theory explains the level of the hierarchy of needs, where the fulfillment of these needs levels can make people motivated (Robbins and Juge, 2015: 128). This theory is divided into five levels, namely:

1. Physiological needs, such as: hunger, thirst, rest and sex
2. Safety needs, not only in the physical sense, but also mentally, psychologically and intellectually
3. The need for love (love needs)

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4. The need for self-esteem (esteem needs), which is generally reflected in various status symbols
5. Self-actualization (self-actualization), in the sense of providing opportunities for a person to develop the potential contained within him so that it turns into real abilities.

Goal Setting Theory

Locke and Latham (2013) suggest that goal setting to work towards a goal is the main source of work motivation. To understand work motivation and develop techniques to increase work motivation among workers. One way is to use theory about goal setting. Goal setting can work as a motivational process because goal setting can create discrepancies between current performance and expected performance. Goals are targets and objectives for future performance. That everyone will make calculations in setting goals. When a person has set a goal for himself, he will have motivation and try to achieve the goal he has made. These goals will affect their performance at work.

An organization that is successful in achieving its goals cannot be separated from the role of human resources in it which is one of the assets of the organization. Several factors that can influence the success of organizational goals are how work motivation and work discipline affect career development and employee performance. This is of course very important to be considered by management in order for the stability and development of the organization.

Hypothesis

- H1: Work motivation has a positive effect on career development.
- H2: Work discipline has a positive effect on career development
- H3: Motivation has a positive effect on employee performance
- H4: Work discipline has a positive effect on employee performance
- H5: Career development has a positive effect on employee performance.

III. RESEARCH METHODS

The research was conducted at the UPT Puskesmas Tembuku I Bangli which is located at Jl. Kehen No.1 Br. Tembuku Friend, Kec. Tembuku, Kab. Bangli, Bali. The time of the research was carried out from November 2021 to July 2022. The reason the researchers chose this location in the study was based on initial observations made regarding employee performance that had not been optimally presented from the presence of employees who were unable to complete the work in accordance with the time set and the lack of employee discipline based on both attendance and compliance with working hours. The research here will examine the effect of work motivation, work discipline and career development on employee performance. UPT Puskesmas Tembuku I Bangli district requires work motivation, Work discipline and career development are deemed necessary to increase employee morale, which will later affect employee performance. The scope of this research is limited to the variables of work motivation, work discipline, career development, and employee performance.

The population in this study were all employees of UPT Puskesmas Tembuku I as many as 51 employees. According to Arikunto (2012) if the population is less than 100 people, then the total sample is taken, but if the population is greater than 100 people, then 10-15% or 20-25% of the total population can be taken.

Based on this research, because the total population is not greater than 100 respondents, the authors take 100% of the population at UPT Puskesmas Tembuku I, Bangli Regency, which is as many as 51 respondents. Thus the use of the entire population without having to draw a research sample as a unit of observation is referred to as a census technique or saturated sampling.

The analytical technique used is a structural equation model (Structural Equation Modeling/SEM) based on Partial Least Square (PLS). Structural Equation (SEM) is one method that can be used for the analysis of the path equation model. Wright stated that SEM is one of the analytical techniques for testing and estimating casual relationships by integrating path analysis and factor analysis (Jogiyanto, 2011) in (Hamid and Anwar, 2019).

IV. RESEARCH RESULTS AND DISCUSSION

1. Test Hypothesis

Hypothesis testing is done by using t-statistics by sorting for direct effect testing. In the following section, the results of direct influence testing are described successively.

- 1) Live Effect Test

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The significance of the estimated parameters provides very useful information about the relationship between the research variables. The basis used in testing the hypothesis is the value contained in the output result for inner weight. Table 1 provides the estimated output for testing the structural model.

Table 1. Hypothesis Testing Results

Variable	Original Sample (O)	T Statistics (O/STDEV)	P Values	Information
Work discipline -> Employee performance	0.465	3,899	0.000	Significant
Work Discipline -> Career Development_	0.384	4,598	0.000	Significant
Work Motivation -> Employee Performance	0.342	2,452	0.019	Significant
Work Motivation -> Career Development_	0.610	7,184	0.000	Significant
Career Development_ -> Employee Performance	0.507	2,671	0.008	Significant

Source: Appendix 5

The results of testing the research hypothesis based on Table 1 are as follows:

- (1) Testing Hypothesis 1: Work motivation has a positive and significant effect on career development. These results can be presented in coefficient value of 0.610 with t-statistics value of 7,184. The t-statistics value is below the critical value of 1.96 and the value of sig < 0.05. Based on this, hypothesis 1 is declared accepted.
- (2) Testing Hypothesis 2: Work discipline has a positive and significant effect on career development. These results can be presented in coefficient value of 0.384 with t-statistics value of 4.598. The value of t-statistics is below the critical value of 1.96 and the value of sig < 0.05. Based on this, hypothesis 2 is declared accepted.
- (3) Hypothesis Testing 3: Motivation has a positive and significant effect on employee performance. These results can be presented in coefficient value is 0.342 with t-statistics value is 2.452. The value of t-statistics is above the value of 1.96 and the value of sig < 0.05. Based on this, hypothesis 3 is declared accepted.
- (4) Hypothesis Testing 4: Work discipline has a positive and significant effect on employee performance. Results This can be presented at a coefficient value of 0.465 with a t-statistics value of 3.899. The t-statistics value is above the value of 1.96 and the value of sig < 0.05. Based on this, hypothesis 4 is declared accepted.
- (5) Testing Hypothesis 5: Career development has a positive and significant effect on performance. These results can be presented in the coefficient value is 0.507 with the t-statistics value of 2.671. The value of t-statistics is below the value of 1.96 and the value of sig < 0.05. Based on this, hypothesis 5 is declared accepted.

2) Testing Indirect Effects Through Mediation Variables

In testing the following hypothesis, the mediating role of career development variables (Y1) between work motivation (X1) on employee performance (Y2) and the mediating role of career development variables (Y1) between work discipline (X2) on employee performance (Y2) will be examined. As for the indirect effect hypothesis testing in this study, the results of the analysis can be presented in Table 2 as follows:

Table 2. Recapitulation of Testing Results of Career Development Mediation Variables

=No	Mediation of Organizational Commitment Variable (Y1) on:	Effect				Note:
		(A)	(B)	(C)	(D)	
1	Work motivation, (X1) □ Employee performance (Y2)	0.435 (sig)	0.755 (sig)	0.883 (sig)	0.945 (sig)	Partial Mediation
2	Work discipline, (X2) □ Employee Performance (Y2)	0.479 (sig)	0.870 (sig)	0.816 (sig)	0.471 (Sig)	Partial Mediation

Source: Appendix 5

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The information obtained from Table 2 above is the results of testing the mediating variables that can be conveyed as follows: career development (Y1) is able to mediate positively and significantly on the indirect effect of work motivation (X1) on employee performance (Y2). This result is shown from the mediation test carried out, it appears that the effects of A, C and D have significant values. Other information that can be conveyed, the mediating effect of career development variables (Y1) on the indirect effect of work motivation (X1) on employee performance (Y2) is partial mediation. This finding provides an indication that the career development mediating variable (Y1) is not a key determinant of the effect on work motivation (X1) and work discipline (X2) on employee performance (Y2).

In order to determine the overall effect for each relationship between the variables studied, a recapitulation of direct effects, indirect effects and total effects can be presented in Table 3 below:

Table 3. Calculation of Direct, Indirect and Total Effects

No	Variable Relationship	Live Effect	Indirect Effect	Total Effect
1	Work motivation, (X1) □ Career development, (Y1)	0.610	-	-
2	Work discipline, (X2) □ career development, (Y1)	0.384	-	-
3	Work motivation, (X1) □ Employee Performance (Y2)	0.342	-	-
4	Work motivation, (X1) □ career development, (Y1) □ Employee Performance (Y2)	0.342	0.309	0.651
5	Work discipline, (X2) □ Employee Performance (Y2)	0.465	-	-
6	Work discipline, (X2) □ career development, (Y1) □ Employee Performance (Y2)	0.465	0.195	0.660
7	Career development, (Y1) □ Employee Performance (Y2)	0.507	-	-

Source: Appendix 5

Information obtained from Table 3 above, the mediating effect of career development variables (Y1) on the indirect effect of work discipline (X1) on employee performance (Y2) is greater, with a total path coefficient of 0.660 compared to the mediating effect of career development variables (Y1) on the indirect effect of work discipline (X2) on employee performance (Y2) with the resulting total path coefficient of 0.650.

2. Discussion

Based on the results of the PLS analysis, this section will discuss the results of the calculations that have been carried out. This study aims to determine the effect of work motivation and work discipline on employee performance through career development at UPT Puskesmas Tembuku I Bangli Regency. Testing is shown through existing hypotheses so that they can find out how the influence of each variable on the other variables.

The Effect of Work Motivation on Career Development

Thus, employees at UPT Puskesmas Tembuku I Bangli Regency assess good work motivation as motivation X. This finding provides important instructions for leaders at UPT Puskesmas Tembuku I Bangli Regency so that in motivating the work of subordinates using traditional view motivation.

Information related to work motivation provides an indication that work motivation on indicator X has the highest loading factor value of 0.957. These results indicate that what is considered important in work motivation is motivation X. Furthermore, work motivation is reflected by motivation X with an average value of 4.16. Information related to career development provides an indication that exposure gets the highest factor weighting, amounting to 0.907. This result indicates exposure considered most important role in career development. Furthermore, it can be interpreted, career development, employees at UPT Puskesmas Tembuku I Bangli Regency are also reflected in exposure.

The Effect of Work Motivation and Work Discipline on Career Development and Employee Performance

With this, employees at UPT Puskesmas Tembuku assess career development, which is determined by exposure. This finding provides important clues for the leadership of the UPT Puskesmas Tembuku I Bangli Regency to pay attention to this matter in order to achieve maximum employee performance.

The results of statistical data analysis show that work motivation has a positive and significant effect on career development, so the analysis of this research model shows that the higher the work motivation, the higher the career development.

Research conducted by Zameer and Shehzad (2014) found that the role of work motivation is very vital to improve employee performance, with motivation from superiors so employees will be satisfied with their work. Research conducted by Dewi and Utama (2016) explains that what can help increase work motivation is by developing a good career, when employee motivation is high in the company, employee performance will increase.

The results of this study are in line with Muhlis (2018) showing that there is a significant relationship between significant between motivation and career development.

The Effect of Work Discipline on Career Development

The results of statistical data analysis show that work discipline has a positive and significant effect on career development, so the analysis of this research model shows that the higher the work discipline, the higher the career development.

Information related to work discipline provides an indication that attendance at work has the highest factor weight, which is 0.933. These results indicate that attendance at work is an important role in work discipline. Furthermore, it can be interpreted that work discipline, employees at UPT Puskesmas Tembuku I tend to be reflected in attendance at work which is indicated by the highest average gain (4,176). Information related to career development provides an indication that exposure has the highest factor weighting, amounting to 0.907. This result indicates exposure considered most important role in career development. Furthermore, it can be interpreted, career development, employees at UPT Puskesmas Tembuku I Bangli Regency are also reflected in exposure.

This finding provides important instructions for leaders at the UPT Puskesmas Tembuku I, Klungkung Regency to pay attention to work discipline on employee attendance at work.

With this, employees at UPT Puskesmas Tembuku assess career development, which is determined by exposure. This finding provides important clues for the leadership of the UPT Puskesmas Tembuku I Bangli Regency to pay attention to this matter in order to achieve maximum employee performance.

Work discipline according to Siswanto (2010:278) work discipline is an attitude of respect, respect, obedience and obedience to the applicable regulations, both written and unwritten, to avoid receiving sanctions if he violates the duties and authorities given to him. Discipline is training, especially the training of the mind and attitude to produce self-control, the habit of obeying the applicable rules. Thus it can be said that the problem of discipline is always related to the observance of order. Obedience out of fear is not good discipline. Good discipline arises from within a person because of his awareness of the discipline.

The results of this study are in line with Satrio, (2011), Indah Lestari (2011), Wiyani (2014), Cintia (2011), and Merianis (2010) who stated that the results of the study found that work discipline had an effect on employee career development.

The Effect of Work Motivation on Employee Performance

The results of statistical data analysis show that work motivation has a positive and significant effect on employee performance, so the analysis of this research model shows that the higher the work motivation, the higher the employee performance.

Information related to work motivation provides an indication that work motivation on indicator X has the highest loading factor value of 0.957. These results indicate that what is considered important in work motivation is motivation X. Furthermore, work motivation is reflected by motivation X with an average value of 4.16. The information from Table 5.16 above provides an indication that the employee's work objectives are: get the highest factor weight is 0.924. This result indicates that employee work targets are an important indicator of their role in employee performance. Furthermore, it can be interpreted that the performance of employees at UPT Puskesmas Tembuku I tends to be reflected in the work targets of employees.

Thus, employees at UPT Puskesmas Tembuku I, Bangli Regency assess employee performance as determined by the employee's work goals in order to achieve maximum employee performance. This finding provides an important clue for the leadership of the UPT Puskesmas Tembuku I Bangli Regency to pay attention to employee work targets to achieve maximum employee performance.

Wukir in (Sudiardhita et al., 2018) explains that motivation can be defined as a process that explains the intensity, direction, and persistence of a person in trying to achieve his goals, and have motive to be able to meet the needs, desires, impulses

The Effect of Work Motivation and Work Discipline on Career Development and Employee Performance

or impulses. Therefore, with positive motivation, it can increase productivity and work quality. In essence, employees are motivated to perform their duties depending on what forces and motives influence them. Employees are human beings who have many inner needs that are contained in individual activities, but employees will act in a certain way that leads to the fulfillment of the needs of their employees based on the motivation that is more influential at that time. (Pawirosumarto, Bachelor, & Muchtar, 2017).

The results of this study are in line with Sukmayuda et al., (2019), Win and Faisal (2019) showed that the motivation of employees at work has a positive and significant effect on employee performance.

The Effect of Work Discipline on Employee Performance

The results of statistical data analysis show that work discipline has a positive and significant effect on employee performance, so the analysis of this research model shows that the higher the work discipline, the higher the high employee performance.

Information related to work discipline provides an indication that attendance at work has the highest factor weight, which is 0.933. These results indicate that attendance at work is an important role in work discipline. Furthermore, it can be interpreted that work discipline, employees at UPT Puskesmas Tembuku I tend to be reflected in attendance at work which is indicated by the highest average gain (4,176). The information from Table 5.16 above provides an indication that the employee's work objectives are: get the highest factor weight is 0.924. This result indicates that employee work targets are an important indicator of their role in employee performance. Furthermore, it can be interpreted that the performance of employees at UPT Puskesmas Tembuku I tends to be reflected in the work targets of employees.

Thus, employees at UPT Puskesmas Tembuku I, Bangli Regency assess employee performance as determined by the employee's work goals in order to achieve maximum employee performance. This finding provides an important clue for the leadership of the UPT Puskesmas Tembuku I Bangli Regency to pay attention to employee work targets to achieve maximum employee performance. These findings provide important instructions for leaders at the UPT Puskesmas Tembuku I, Klungkung Regency to pay attention to work discipline on employee attendance at work.

Information related to employee performance provides an indication that the employee's work objectives are: get the highest factor weight is 0.924. This result indicates that employee work targets are an important indicator of their role in employee performance. Furthermore, it can be interpreted that the performance of employees at UPT Puskesmas Tembuku I tends to be reflected in the work targets of employees.

Thus, employees at UPT Puskesmas Tembuku I, Bangli Regency assess employee performance as determined by the employee's work goals in order to achieve maximum employee performance. This finding provides an important clue for the leadership of the UPT Puskesmas Tembuku I Bangli Regency to pay attention to employee work targets to achieve maximum employee performance.

Work discipline is the habit of oneself to be able to work on voluntary social rules and norms that aim to achieve everything that is expected. As an employee, he must have a high sense of discipline, so that whatever has become the goals and expectations of the organization can be achieved as expected (Alexandri & Padjadjaran, 2019). Discipline in a company must be enforced because Hasibun in (Azzahra, Gita Ayuningtias, Anggadwita, & Nurbati, 2019) states that company goals can be realized by enforcing discipline. Work discipline is used as a tool to communicate with employees so that employees want to follow the rules that have been set. Good employee discipline will make the organization achieve its goals easier (Azzahra et al., 2019).

The results of this study are in accordance with Pawirosumarto et al., (2017) and Azzahra et al., (2019) stating that the implementation of discipline in doing work will have an impact that affects employee performance. Work discipline and employee performance are in the high category and work discipline has a positive and significant effect on employee performance.

Influence Career Development on Employee Performance

The results of statistical data analysis show that career development has a positive and significant effect on employee performance, so the analysis of this research model shows that the clearer career development, will lead to high employee performance.

Information related to career development provides an indication that exposure has the highest factor weighting, amounting to 0.907. This result indicates exposure considered most important role in career development. Furthermore, it can be interpreted, career development, employees at UPT Puskesmas Tembuku I Bangli Regency are also reflected in exposure. With Thus, employees at UPT Puskesmas Tembuku assess career development, which is determined by exposure. This

The Effect of Work Motivation and Work Discipline on Career Development and Employee Performance

finding provides an important clue for the leadership of the UPT Puskesmas Tembuku I, Bangli Regency to pay attention to this matter in order to achieve maximum employee performance.

Performance-related information provides an indication that the employee's work goals get the highest factor weight is 0.924. This result indicates that employee work targets are an important indicator of their role in employee performance. Furthermore, it can be interpreted that the performance of employees at UPT Puskesmas Tembuku I tends to be reflected in the work targets of employees. Thus, employees at UPT Puskesmas Tembuku I, Bangli Regency assess employee performance as determined by the employee's work goals in order to achieve maximum employee performance. This finding provides an important clue for the leadership of the UPT Puskesmas Tembuku I Bangli Regency to pay attention to employee work targets to achieve maximum employee performance.

Career development is very important for an organization, because a career is a need that must be developed in an employee, so that it can motivate employees to improve their performance (Arijanto, 2019). According to Sunyoto in (Arijanto, 2019), career development is the process of increasing individual work abilities carried out to achieve the desired career. The goal of all career development programs is to match the needs and goals of employees with the career opportunities available in the company today and in the future.

The results of this study are in line with Leibowitz et al. in (Otoo & Mishra, 2018) and Arijanto, (2019) suggest that career development has a significant influence on employee performance.

V. CONCLUSIONS AND RECOMMENDATIONS

Research is said to be good if it finds elements of new findings so that it has a good contribution to science. The novelty that can be reported in this study is that performance measurement refers to a combination of employee work goals and work behavior using ten indicators that can be influenced by work motivation, work discipline and career development variables in a model.

The results of this study can contribute to science, especially for future researchers, that career development can become the connecting variable of work motivation and work discipline, on employee performance. Besides that, the indicators that make up valid work motivation are motivation X and motivation Y, while a valid work discipline indicator is presence at work, Adherence to work regulations, Adherence to work standards, High level of vigilance, Work ethically. Career development variables are measured using Job Performance, Exposure, Loyalty to the organization, Utilization of mentors and sponsors, Management support, Utilization of opportunities to grow, Quitting at your own request and will. Variables are measured using indicators Employee Work Target, Work Behavior.

Policy implications that can be linked with the findings that generated in this study so as to provide a practical contribution for agency leaders to improve performance, through high work motivation and high employee discipline.

The limitations that can be conveyed from this research are related to this research, namely the instrument uses a 5-point Likert scale and does not use an open-ended questionnaire. In addition, this research is based on a relatively short time of research (cross-sectional). This limitation certainly has an impact on the low generalizability of the study.

1.1 Suggestion

Based on these conclusions, the following suggestions can be given:

1. Respondents' assessment of the work motivation variable in this study was in the high category, but the indicators that needed to be improved were Y's motivation by increasing self-control, being more responsible and more innovative. Efforts that can be made are to attend seminars to increase employee motivation.
2. The assessment on the work discipline variable in this study is high, but it needs to be improved, especially on the indicator that is rated the lowest by the respondents, namely working ethically, for that employees are expected mutual respect for fellow employees, build cooperation in carrying out tasks. To increase the harmony in the work, efforts can be made in the form of family gatherings.
3. The assessment of career development variables in this study is in the good category, but the lowest respondent's assessment is known to be an indicator of work performance, for that employees should increase their skills to support their daily work. Skills improvement can be done by attending workshops and learning independently.

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Comparison of Flow Field and A-Star Algorithm for Pathfinding in Tower Defense Game



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ABSTRACT: Tower Defense is a game genre that uses a pathfinding algorithm. Pathfinding is a way to find a path from one point to another; pathfinding itself has many variants with different scenarios. One of these algorithms is the A-Star algorithm, a well-known and commonly used method for game pathfinding. Another algorithm is the Flow Field algorithm, which is an algorithm that is not widely known and has become the topic in this following research. This research will be carried out by comparing the time required by both algorithms to reach the target point from starting point, and time comparison will be carried out in 3 different scenarios. The result of the research is that the Flow Field algorithm reaches the target faster than A-Star Pathfinding in every scenario carried out in the simulation. This research concludes that the Flow Field algorithm can compete with the A-Star algorithm to find paths in the Tower Defense game.

KEYWORDS: Flow field algorithm, A-Star, Pathfinding, Artificial Intelligence, Algorithm Comparison

I. INTRODUCTION

Real-time Strategic (RTS) Tower Defense (TD) is a strategy game with building and managing resources in a game that is moving in real-time [1]. RTS TD aims to protect a zone and eliminate the enemy or enemy zone. One of the challenges in a Tower Defense game is how to move the enemy units. To overcome the challenge, we can use pathfinding. Pathfinding is putting Artificial Intelligence into NPC (Non-Player Character) to find a way to move to the target. A-Star algorithm is one of the most popular pathfinding used [2], [3]. A-Star algorithm is also often used for comparison between algorithms in pathfinding because of its popularity and flexibility. Every Algorithm has its downsides. If a lot of units are involved in the game that runs the Algorithm, if the map is too small, or if the game environment is too dynamic, A-Star Algorithm would not be the best Algorithm to solve pathfinding problems [4], [5].

There are many alternative pathfinding algorithms, one of which is Flow Field pathfinding. Flow Field and A-Star are similar algorithms to each other, and both of them use informed search. According to Emerson [6], Flow Field Algorithm is worth studying because of its capability to solve paths for hundreds of units, detect obstacles, and it's heuristic properties [7]. The capacity to create a path from hundreds of units came from the grid-based Algorithm [8]. The downside of Flow Field Pathfinding is a high amount of resource usage if the map is too big [9].

This research compares the Flow Field algorithm with the A-Star algorithm in a Tower Defense game. This comparison aims to know if Flow Field Pathfinding algorithm could compete against the A-Star Pathfinding algorithm in an RTS TD game. Time to reach the target would be the comparison between the two Algorithms. This research is expected to add to the general insight into the Flow Field Pathfinding algorithm and add interest in making Tower Defense games using algorithms Flow Field Pathfinding.

II. LITERATURE STUDY

Tower Defense is a strategy game where the player stops or slows the enemy with an obstacle in-game environment. Tower Defense is a RTS game focused on managing resources and placing unit/tower to prevent the enemy from reaching a certain zone [10], [11]. From the two definition above, can be concluded that the tower defense game is a game where the player prevents the enemy units from reaching a certain zone with every means possible. The player creativity and skill would be tested on how to prevent the enemy from going into the zone.

Flow Field is derived from the concept of fluid dynamics, namely the study of the movement of water surfaces. Before the Flow Field algorithm was used for video games, this Algorithm is used for water surfaces, this concept can also be identified as

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vector fields. Flow Field Algorithm works in a vector plane, where each vector points to the neighboring Node closest to the destination. When a unit passes through a cell, it will know the vectors belonging to that one, so as the name implies, the vectors in the flow field will look like water flows [12]. The Flow Field Pathfinding algorithm has a time complexity of $O(n^2)$ notation; this notation is formed because the code checks all nodes on the grid in a nested if. A-Star algorithm uses mathematical equations and uses the lowest value overall as a pathway from the starting point to the endpoint [13]. The calculation of the lowest value is done using the heuristic formula [14] :

$$f(n) = h(n) + g(n).$$

Where the $g(n)$ is a total value from starting point to point n , $h(n)$ is an estimated value from point n to the endpoint, and $f(n)$ is the total value of combined $g(n)$ and $h(n)$. The lowest value of $f(n)$ would be the shortest path from the starting point to the endpoint. The A-Star Pathfinding algorithm has a time complexity of $O(bd)$ or $O(E)$. This is happen because, traveling to all nodes is a possibility for the Algorithm to reach the destination point from the starting point.

III. METHODOLOGY

Comparison between the Flow Field algorithm and A-Star algorithm is made by testing both Algorithms in 3 different scenarios. Each scenario would be tested ten times, and calculate the average time taken for the pathfinding algorithm to reach the endpoint. In this study, the Flow Field Pathfinding algorithm and the A-Star Pathfinding algorithm are the base code. For the A-Star Pathfinding algorithm, the base code is used by Seb Lague [15], while for the Flow Field Pathfinding algorithm, the base code from Turbo Makes Games is used which is then developed to meet the testing criteria to be carried out. System design is done by making flowcharts and map designs.

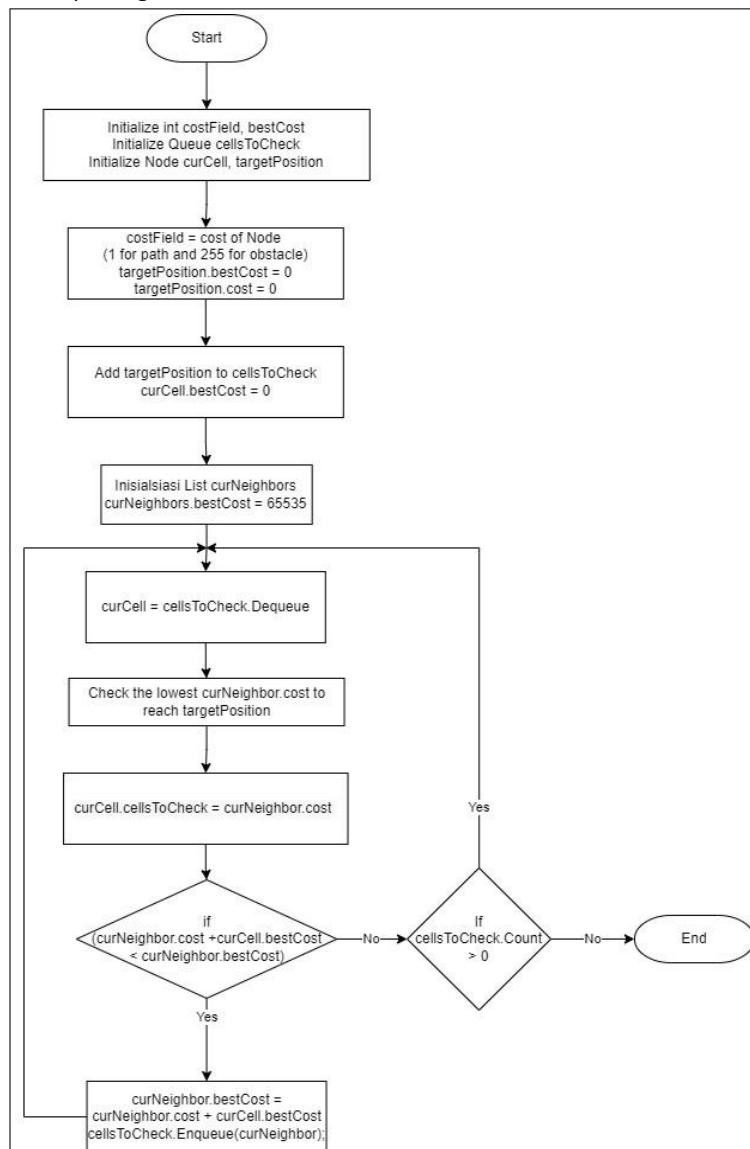


Fig 1. Flow field pathfinding modul

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Figure 1 shows the flow for Flow Field Pathfinding algorithm. The first step in this Algorithm is to initialize several things, there are integer initialization costField and bestCost, then Queue cellsToCheck initialization, and Node initialization curCell and targetPosition. After that the costField value of each Node in the grid will be set, the value is 1 if the Node can be used as a path, whereas if the Node cannot be passed, then the value will be 255. The targetPosition node will also be set targetPosition.bestCost = 0 and targetPosition.cost= 0, this value serves to distinguish the Node value between the destination and the path and the initial stage is to find the shortest path to reach the goal. Then add targetPosition to Queue cellsToCheck and fill the value curCell.bestCost = 0 so that the destination node will be processed first by the Algorithm.

Next, initialize the curNeighbors List and fill in the curNeighbors.bestCost value with a very high value (65535) so that when compared to other bestCost (paths) which have lower values, that path will be used. The next thing is to fill in the Node values one by one starting from curCell, then check to find the lowest curNeighbor.cost value to reach the target, by comparing the value of curNeighbor.cost plus curCell.bestCost with the value of curNeighbor.bestCost. If the value is smaller, it will be continued by determining the Node value curNeighbor.bestCost with the value curNeighbor.cost + curCell.bestCost and adding the Node into the Queue which will then loop back to read the Nodes contained in the Queue. If the value is greater, it will check whether there are still Queues left from cellsToCheck, if so, the code will loop when the Algorithm reads cellsToCheck, if the cellsToCheck Queue is empty, this means that all Nodes have been read and have values. At this stage the Flow Field algorithm has been successfully created and the closest path made between the starting point and the end point is through the Node with the lowest total value.

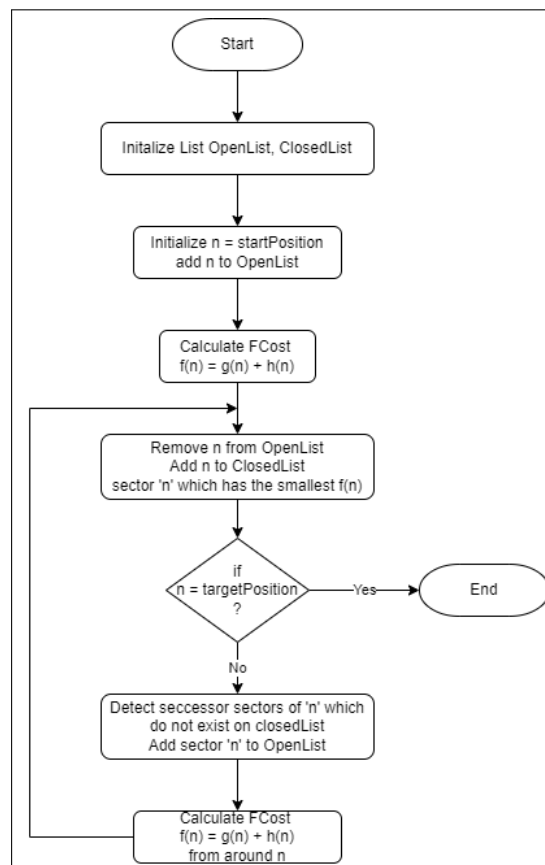


Fig 2. A-Star pathfinding modul

Figure 2 shows the flow of the A* pathfinding algorithm. The A* algorithm works by creating a list named open list and closed list, open list are nodes that would, but not yet calculated. Meanwhile closed list are nodes that has been calculated. After the two list are created, the Algorithm would calculate the f cost with equation of $f(n) = g(n) + h(n)$, where $f(n)$ is the f cost, $g(n)$ would represent as the value from starting position to Node n, and $h(n)$ is the heuristic value, the estimated value needed to reach end Node from Node n. The A* algorithm would search for the lowest value of $f(n)$, then to find out whether n is the target Node, if it is not the target position the Algorithm would keep running to search for n that are not in the closed list, add n to the open list then the Algorithm would calculate the value of $f(n)$ then add it to the closed list, and check the next n. If n is the target Node, then the Algorithm has been run successfully and the path would be created by following the closed list from the starting point to the end point.

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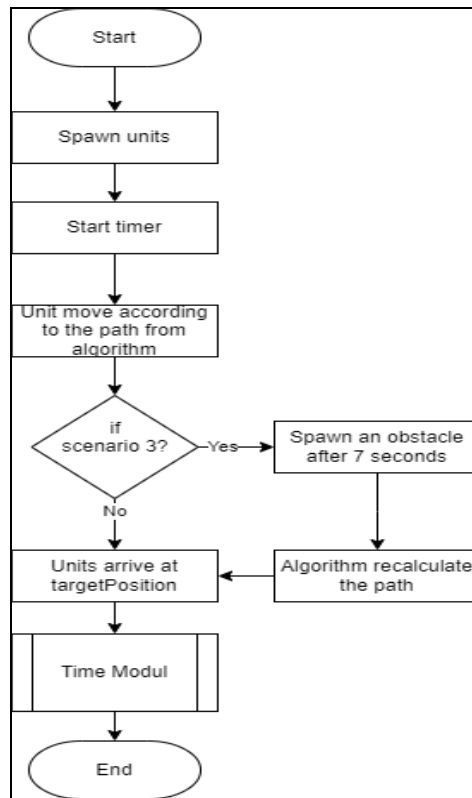


Fig 3. Main modul Scenario flow

Figure 3 is the flow for the main module. When the 'Play' button is clicked, 10 entities will spawn from starting point, and the timer will start. The entity would start to move to the end point based from the path the Algorithm creates. If the process is in scenario 3, after 7 seconds, an obstacle would appear on the map causing the Algorithm to recalculate a new path to avoid the obstacle.

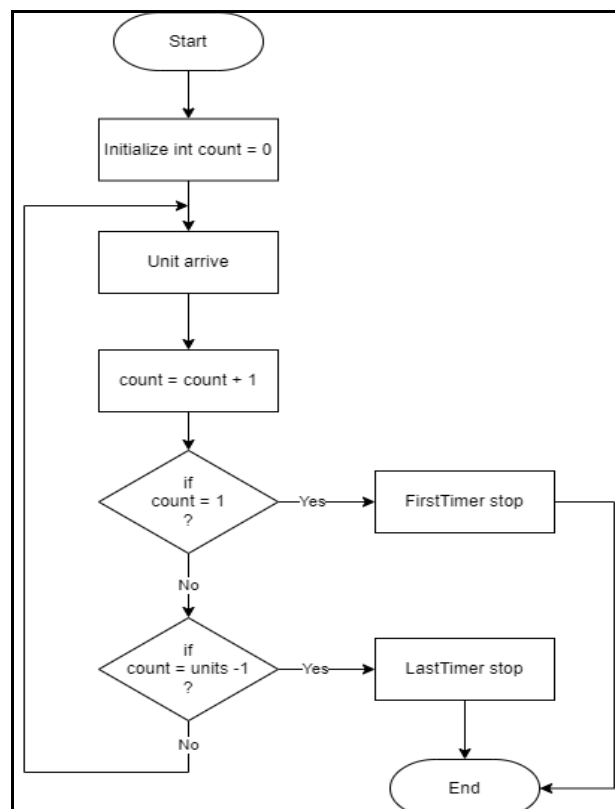


Fig 4. Time modul flowchart

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Figure 4 is the flowchart for time modul. Count variable is initialized to detect and calculate unit. When a unit reached the destination, the amount of unit would be checked, if it is the first unit that reaches the destination, the first timer will stop. When the last unit reached the destination, the last timer would stop, recording the time needed to get to the destination from the start.

IV. RESULT

A comparison of the flow field algorithm and the A-Star algorithm in pathfinding is carried out with three mapping scenarios. At the same time, the effectiveness is calculated by measuring the speed of each NPC in achieving the goal. In the first scenario, a simple map looks like in Figure 4, where the path is made simple with a few obstacles.

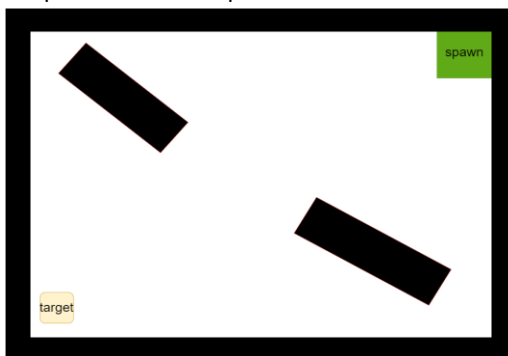


Fig 5. Mapping Path in Scenario 1

Figure 5 is the implementation result of scenario 1. In this scenario, the display will remain the same in the Flow Field Pathfinding algorithm and the A* Pathfinding algorithm. Beside Figure 6 is the implementation result of scenario 2. In this scenario, the display will remain the same in the Flow Field Pathfinding algorithm and the A* Pathfinding algorithm.

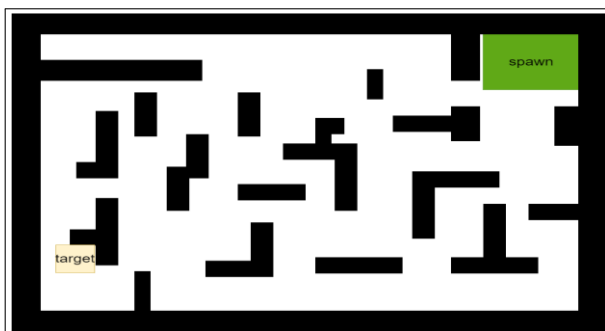


Fig 6. Mapping Path in Scenario 2

In the second scenario, the path to reach the target is more complicated than the first scenario to see the effectiveness of the speed of the A-Star algorithm and the flow field algorithm in the path search. However, in this scenario, the path from where the NPC appears to the target destination on the map does not change.

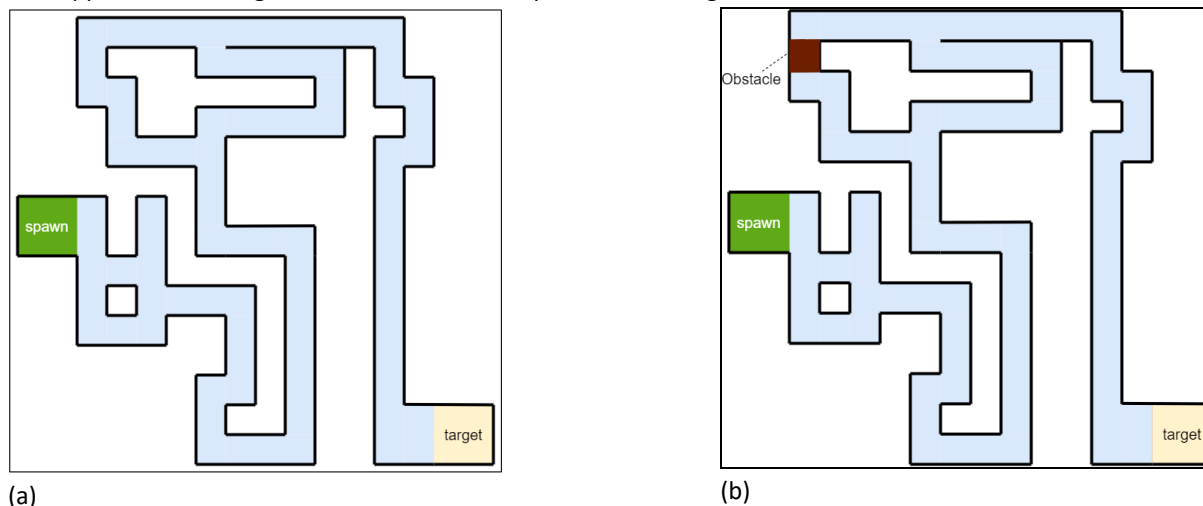


Fig 7. Mapping Path in Scenario 3

Comparison of Flow Field and A-Star Algorithm for Pathfinding in Tower Defense Game

In the third scenario shown in Figure 7a, the path on the map is made more complicated, and obstacles can suddenly appear to hinder the path search. The appearance of obstacles can be seen in Figure 7b, where obstacles can suddenly appear to hinder the path search. Still, in this comparative test, the appearance of obstacles in each test will be made simultaneously.

Test results were obtained and calculated by using the *timerform* Unity. Application testing is done ten times for each Algorithm and scenario to get the average time taken. The following tables are the results of the trial that has been carried out.

Table 1. Result of Scenario 1 Flow Field Pathfinding

Test number	First Timer	Last Timer	Average
1	3.0099	3.4152	3.2126
2	2.8994	3.3857	3.1426
3	2.9305	3.3216	3.1261
4	2.9462	3.3203	3.1332
5	2.9462	3.3643	3.1553
6	2.9271	3.4018	3.1645
7	2.9572	3.3730	3.1651
8	2.9189	3.675	3.1432
9	3.0095	3.3397	3.1746
10	2.8974	3.3223	3.1099

Table 1 is the result of testing using Flow Field Pathfinding to find the shortest time required to reach the target. The average result of all trials conducted was $(3.2126 + 3.1426 + 3.1261 + 3.1332 + 3.1553 + 3.1645 + 3.1651 + 3.1432 + 3.1746 + 3.1099) / 10 = 3.1527$.

Table 2. Result of Scenario 1 A* Pathfinding

Test number	First Timer	Last Timer	Average
1	3.5307	3.8710	3.7009
2	3.4046	3.9029	3.6538
3	3.4858	3.9975	3.7417
4	3.4465	3.9424	3.6945
5	3.4361	4.0604	3.7483
6	3.5163	4.0054	3.7609
7	3.4501	4.1039	3.7770
8	3.5495	4.1754	3.8625
9	3.5221	4.0333	3.7777
10	3.4616	4.0996	3.7806

Table 2 shows the result of the testing using A* Pathfinding to find the shortest amount of time required to reach the target. The average result of all trials conducted was $(3.7009 + 3.6538 + 3.7417 + 3.6945 + 3.7483 + 3.7609 + 3.7770 + 3.8625 + 3.7777 + 3.7806) / 10 = 3.7498$. The result of the comparison average of Table 1 with Table 2 for scenario 1 shows that the average time of the Flow Field (3,1527) is faster than A* (3,7498) and has a difference of 0.5971 seconds.

Table 3. Result of Scenario 2 Flow Field Pathfinding

Test number	First Timer	Last Timer	Average
1	3.3368	3.8011	3.5690
2	3.3598	3.7603	3.5601
3	3.3923	3.8280	3.6102
4	3.3980	3.8258	3.6119

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5	3.3250	3.8013	3.5767
6	3.3903	3.7070	3.5487
7	3.3313	3.7858	3.5586
8	3.3652	3.7724	3.5688
9	3.3620	3.7855	3.5738
10	3.4944	3.7956	3.6450

Table 3 shows the result of testing using Flow Field Pathfinding to find the shortest time required to reach the target. The average result of all trials conducted was $(3.5690 + 3.5601 + 3.6102 + 3.6119 + 3.5767 + 3.5487 + 3.5586 + 3.5688 + 3.5738 + 3.6450) / 10 = 3.5822$.

Table 4. Result of Scenario 2 A* Pathfinding

Test number	First Timer	Last Timer	Average
1	3.3368	3.8011	3.5690
2	3.3598	3.7603	3.5601
3	3.3923	3.8280	3.6102
4	3.3980	3.8258	3.6119
5	3.3250	3.8013	3.5767
6	3.3903	3.7070	3.5487
7	3.3313	3.7858	3.5586
8	3.3652	3.7724	3.5688
9	3.3620	3.7855	3.5738
10	3.4944	3.7956	3.6450

Table 4 shows the result of testing using A* Pathfinding to find the shortest amount of time required to reach the target. The average result of all trials conducted was $(4.4292 + 4.4347 + 4.3888 + 4.4840 + 4.3405 + 4.3667 + 4.4258 + 4.4445 + 4.4041 + 4.4225) / 10 = 4.4140$. When the result compared to the average results of Table 3 with Table 4 for scenario 2, it can be seen that the average Flow Field time (3,5822) is faster than A* (4,4140) and has a difference of 0.8318 seconds.

Table 5. Results of Scenario 3 Flow Field Pathfinding

Test number	First Timer	Last Timer	Average
1	13.5495	14.1580	13.8538
2	13.5022	15.0643	14.2833
3	13.5506	14.0927	13.8217
4	13.5424	14.7615	14.1520
5	13.5153	14.1116	13.8135
6	13.5989	17.1915	15.3952
7	13.5591	17.3906	15.4749
8	13.6293	15.0069	14.3181
9	13.7016	14.4805	14.0911
10	13.6289	17.3056	15.4673

Table 5 shows the result of testing using Flow Field Pathfinding to find the shortest time required to reach the target. The average result of all trials conducted is $(13.8538 + 14.2833 + 13.8217 + 14.1520 + 13.8135 + 15.3952 + 15.4749 + 14.3181 + 14.0911 + 15.4673) / 10 = 14.4671$.

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Table 6. Result of Scenario 3 A* Pathfinding

Test number	First Timer	Last Timer	Average
1	14.7301	15.3122	15.0212
2	14.7364	15.3767	15.0566
3	14.7859	15.1677	14.9768
4	14.6179	15.3490	14.9835
5	14.8016	15.1858	14.9937
6	14.7462	15.2847	15.0155
7	14.8541	15.1946	15.0244
8	14.8757	15.3147	15.0952
9	14.7276	15.2667	14.9972
10	14.8954	15.2926	15.0940

Table 6 shows the result of testing using A* Pathfinding to find the shortest amount of time required to reach the target. The average result of all trials conducted is $(15.0212 + 15.0566 + 14.9768 + 14.9835 + 14.9937 + 15.0155 + 15.0244 + 15.0952 + 14.9972 + 15.0940) / 10 = 15.0258$. When compared to the average results of Table 5 with Table 6 for scenario 3, it can be seen that the average time of Flow Field (14,4671) is faster than A* (15.0258) and has a difference of 0.5587 seconds

V. CONCLUSION

Based on the research that has been done, the following conclusions are obtained, that has successfully implemented the Flow Field Pathfinding algorithm and the A* Pathfinding algorithm into the Tower Defense game simulation. Flow Field Pathfinding can be used and has faster results than A* Pathfinding for finding paths in Tower Defense games. This is evident from the scenarios that have been simulated. From the simulation results carried out in scenario one, the average time required by the Flow Field Pathfinding algorithm is 0.5971 seconds faster. In scenario two simulation, the average time required by the Flow Field Pathfinding algorithm is 0.8318 seconds faster. And for scenario three simulation, the average time required by the Flow Field Pathfinding algorithm is 0.5587 seconds.

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Machine Learning Approach to Determine the Drug-Prone Areas in Lhokseumawe City, Indonesia



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ABSTRACT: This research aims to apply Machine Learning algorithms, such as K-means and K-nearest neighbor into a system that can determine drug-prone areas in Lhokseumawe City, Indonesia. The results of the k-means calculation in some clusters of areas that are very prone, prone and not prone to drugs based on drug user data with some criterias, namely the number of users, sub-district, education, occupation and types of drugs. Based on the research that tested by using the k-means algorithm on data on drug users in 2018-2021, the average percentage of clusters in very prone areas is 49.50%, the percentage of clusters in prone areas is 29.26% and the percentage of clusters in non-prone areas is 21.23%. Furthermore, the results of testing with the K-NN algorithm with 98 training data and 20 testing data obtained an average accuracy value of 87%.

Keywords- Machine Learning, K-means, K-Nearest Neighbor, Drug-Prone

I. INTRODUCTION

The development of Machine Learning in technology is so rapid and also with the data that is produced so complex that form in one volume of data so that this data is very difficult to process manually. With the development of technology nowadays many technologies created to process data becomes a result or conclusion that can be obtained from the data itself. One of the most popular technologies today are cloud computing and Geographic Information System (GIS), in addition to analyzing data, various methods and algorithms are needed to obtain an efficient data conclusions [1].

Many algorithms can be used in Machine Learning such as classification, clustering, association, regression and many more. This method is used according to data analytic in need, an efficient and accurate method for determining the scale from high to low is the Clustering method (grouping) [2]. Algorithms that can be used for the clustering process are k-means, k-medoid, fuzzy c-mean, while machine learning algorithms that can be used for data classification are k-nearest neighbor, support vector machine and Naive Bayes algorithm [3][4][5].

The purpose of this study is to analyze and apply machine learning algorithms, which are k-means and k-nearest neighbor into the system based on drug users data in Lhokseumawe City in 2018-2021 obtained from the National Narcotics Agency of Lhokseumawe City. The K-nearest neighbor algorithm will classify drug user data based on the cluster results from the k-means algorithm so that it gets results which areas are very prone, prone and not prone to drugs in Lhokseumawe City, Indonesia. The system can determine drug-prone areas in Lhokseumawe City based on criterias such as the number of users, sub-districts, education, occupations and types of drugs.

The urgency of the research is currently the Lhokseumawe city government is finding it difficult to determine clusters of drug-prone areas and circulation based on data that has been recorded at the National Narcotics Agency of Lhokseumawe City. The government still lacks information to take further a action, for handling and preventing drugs with the number of users. Drugs in Aceh recorded in 2019, about 73,000 drug addicts from various types of drugs, spread across all sub-districts and urban districts in Aceh, Indonesia. Lhokseumawe City with territorial areas directly adjacent to the State of Malaysia which is connected by the Malacca Strait becomes a narcotics transit area for Indonesia and is possible to become a drug trafficking area.

Therefore, this research implements an application or system that can map drug-prone areas based on the results of the analysis and application of machine learning models or algorithms. Using machine learning algorithms, such as k-means and k-nearest neighbor, the results of the cluster and data classification of drug-prone areas can make it easier for the public to access the information quickly and also assist the Lhokseumawe City government and related agencies in making policies for handling and drug prevention in the city of Lhokseumawe, Indonesia.

II. STUDI LITERATURE

A. Machine Learning

Machine learning is a sub-field of artificial intelligence, a study on how computers are able to learn from data to improve their intelligence [6]. Machine learning is a field of computer science that provides learning capabilities on how computers know things without obvious programming [7]. Machine learning is also used to solve various problems. Algorithms from machine learning are divided into three categories, which is supervised learning, unsupervised learning, and reinforcement learning [8].

Supervised learning is an algorithm that learns based on a set of examples of the desired input and output pairs. This algorithm observes these examples and then produces a model that is able to map the new input to the correct output [9]. Some supervised learning algorithms are k-nearest neighbor, support vector machine, and naive Bayes [10]. While unsupervised learning is a machine learning algorithm whose learning does not use training data, the data given to the system is data that does not have a data label so that the system will study the data based on the features given to it. There is no exact output provided explicitly. One of the most commonly used unsupervised learning algorithms is Clustering or grouping, such as k-means, k-medoid, and fuzzy c-means [11].

B. K-Means

K-means is one of the methods in machine learning that can group data or clustering a data into the form of one or more clusters so that data with the same characteristics are grouped into the same cluster and data with different characteristics are grouped into different groups [12]. In detail, K-means algorithm works is as follows:

- a. Determine the value of k as the number of clusters to be formed.
- b. Determine the random value for the initial cluster center of k centroids, to calculate the distance of each input data to each centroid by using the Euclidean Distance formula as follows:

$$d(x_i, \mu_j) = \sqrt{\sum (x_i - \mu_j)^2} \quad (1)$$

Where: x_i = data criteria, μ_j = centroid in j s-cluster

- c. Group each data based on its nearest to the centroid or find the smallest distance.
- d. Update the new centroid value, the new centroid value is obtained from the average of the cluster using the formula:

$$\mu_j(t+1) = \frac{1}{N_{sj}} \sum_{j \in S_j} x_j \quad (2)$$

Where: $\mu_j(t+1)$ = new centroid in an iteration (t+1), N_{sj} = Data in S_j -Cluster

- e. If the data of each cluster has not stopped, repeat from steps 2 to 5, until the members of each cluster have not changed [13].

C. K-Nearest Neighbor

In machine learning, a method to classify a set of data based on data learning that has been previously classified is K-Nearest Neighbor [14]. K-NN is an algorithm that is included in the supervised learning group, where the results of the new query instance are classified based on the majority of the nearest value to the categories in K-NN. The way the K-Nearest Neighbor algorithm works is to find the closest distance between the data to be evaluated with the closest k-neighbors in a training data. [15].

The following is the sequence process of the K-Nearest Neighbor algorithm:

- a. Determine Parameter k number of nearest neighbors.
- b. Calculate the distance of each data to the existing data sample, in this research using the Euclidean distance according to equation 3:

$$d_i = \sqrt{\sum_{i=1}^p (x_{2i} - x_{1i})^2} \quad (3)$$

Where:

x_1 = Data Sample, x_2 = Data Testing, l = Data Variable, d = Distance, p = Data Dimension.

- c. Sort these data into groups that have a smaller Euclidean distance.
- d. Collect Y category (Nearest Neighbor Classification) [16].

Machine Learning Approach to Determine the Drug-Prone Areas in Lhokseumawe City, Indonesia

III. METHODOLOGY

In this research method, the steps used consist of four stages as follows:

1. Conducting Literature Studies, by collecting relevant primary library/reference sources.
2. Conducting Surveys and Data Collection.

The data used in this research is data on drug users obtained from the National Narcotics Agency of Lhokseumawe City for 2018-2021 period.

3. Perform data analysis with machine learning algorithms, such as k-means and k-nearest neighbor. At this stage, the first step is the data will be clustered by using k-means algorithm according to equations (1) and (2). After getting the results of the cluster with the k-means algorithm, it will continue the process of calculating and analyzing data using the k-nearest neighbor algorithm according to equation (3) to obtain data classification of drug-prone areas in Lhokseumawe City.
4. Applying the results of data analysis and machine learning algorithms in the form of clustering results with k-means and data classification results with k-nearest neighbors into the system. This stage consists of designing a system and implementing a system that can map drug-prone areas in Lhokseumawe City.

The research steps in more detail can be seen in the research block diagram shown in Figure 1.

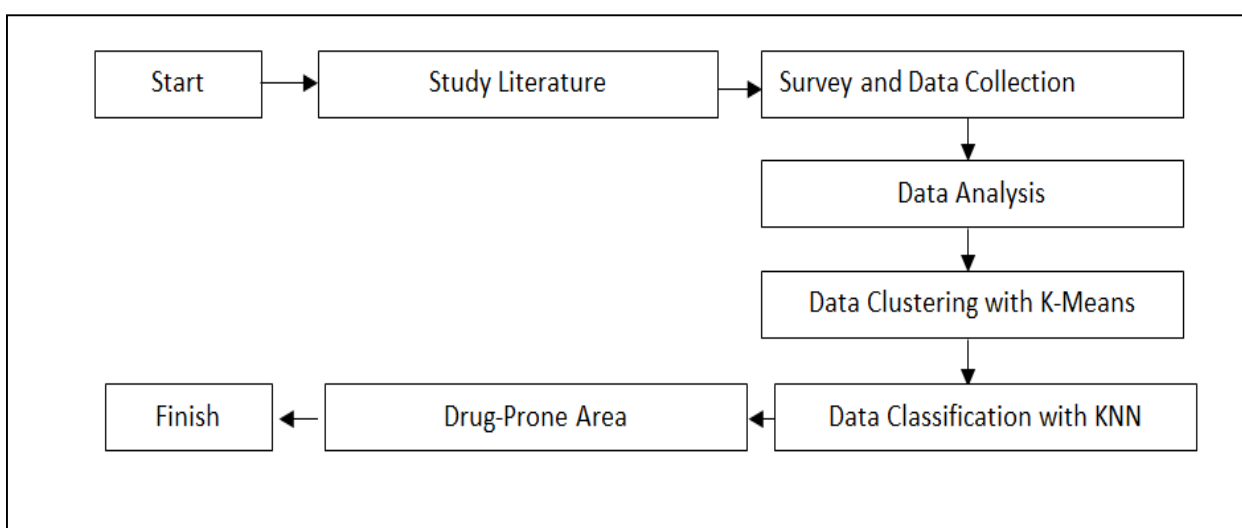


Fig 1. Research Block Diagram

IV. RESULT AND DISCUSSION

A. Data Weighting

Table I. Data Criteria

Criteria Code	Criteria
X1	Number of Users
X2	Sub-district
X3	Occupations
X4	Educations
X5	Type of Drugs

In Table 1, the criteria codes consist of X1, X2, X3, X4 and X5. X1 is the number of users, X2 is the sub-district, X3 is the occupations, X4 is the educations and X5 is the type of drugs.

Table II. Sub-District

Attribute	Value	Weight
Sub-District	Muara Dua	1
	Muara Satu	2
	Banda Sakti	3
	Blang Mangat	4

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In Table 2, it consists of sub-district data in Lhokseumawe City, Indonesia, which consists of 4 sub-districts, the sub-districts of Muara Dua, Muara Satu, Banda Sakti and Blang Mangat..

Table III. Occupation Data

Attribute	Value	Weight
Occupation	Self-employed	7
	Civil Servants	8
	Farmer	9
	College Student	10
	Police	11
	Student	12
	Housewife	13
	Laborer	14

In Table 3, it consists of employment data, such as self-employed, civil servants, farmers, college students, police, students, housewives and laborers.

Table IV. Education Data

Attribute	Value	Weight
Educations	Elementary School	15
	Junior High School	16
	Senior High School	17
	College	18

In Table 4, it consists of educational data, such as elementary school, junior high school, senior high school, and college. Elementary school with a weight of 15, junior high school with a weight of 16, high school with a weight of 17 and college with a weight of 18.

Table V. Type of Drugs

Attribute	Value	Weight
Type Of Drugs	Marijuana	19
	Crystals	20
	Ecstasy	21

In Table 5, it consists of data on types of drugs, such as Marijuana, Crystals and Ecstasy. Marijuana weighing 19, Crystals weighing 20 and Ecstasy weighing 21.

B. K-Means Perhitungan Calculation Results

The results of the k-means test are shown in table 6.

Table VI. K-Means Testing Data

Number of Test	Centroid
1	1,2,3
2	4,3,5

Determination of the initial centroid or cluster center as testing data is carried out randomly or randomly. The steps taken are the first to initialize the centroid or the initial cluster center.

Machine Learning Approach to Determine the Drug-Prone Areas in Lhokseumawe City, Indonesia

Table VII. Centroid Value

No	Village	X1	X2	X3	X4	X5
1	Alue Awe	5	1	7	17	19
2	Batuphat Timur	1	2	7	17	20
3	Batuphat Timur	1	2	7	17	19

The next step is the calculation of the Euclidean Distance Method.

To create a classification model, a number of training data and test data are needed. The next step is to determine the number of groups or clusters, the 25 existing drug use case data will be grouped into three clusters, namely: Very Prone, Prone, Not Prone. Calculating the distance between the first data and the first centroid is:

$$d_{(1,1)} = \sqrt{(5 - 5)^2 + (1 - 1)^2 + (7 - 7)^2 + (17 - 17)^2 + (19 - 19)^2} \\ = 0$$

Calculating the distance between the first data and the second centroid is:

$$d_{(2,1)} = \sqrt{(5 - 1)^2 + (1 - 2)^2 + (7 - 7)^2 + (17 - 17)^2 + (19 - 20)^2} \\ = 4,242641$$

Calculating the distance between the first data and the third centroid is:

$$d_{(3,1)} = \sqrt{(5 - 1)^2 + (1 - 2)^2 + (7 - 7)^2 + (17 - 17)^2 + (19 - 19)^2} \\ = 4,123126$$

The same calculation is applied to all data. After calculating all data, it will get the closest distance for each data in each cluster as shown in table 8.

Table VIII. Closest Distance in Each Cluster

No.	Village	C1	C2	C3	Closest Distance
1	Alue Awe	0	4,242641	4,123126	C1
2	Batuphat Barat	4,358899	0	9,055385	C2
3	Batuphat Timur	9	9,055385	0	C3
4	Blang Naleung Mameh	6,928203	4,582576	13,22876	C2
5	Blang Panyang	3,464102	1	9,110434	C2
6	Blang Pulo	4	1,732051	10,14889	C2
7	Hagu Barat Laut	6,78233	6,082763	3,316625	C3
8	Hagu selatan	5,567764	3,464102	12,16553	C2
9	Hagu Teungoh	5,830952	6,403124	3,872983	C3
10	Jawa Lhokseumawe	10,34408	8,3666	17,20465	C2
11	Keude Aceh	8	6,244998	15,13275	C2
12	Keude Cunda	6,480741	9,539392	15,06652	C1
13	Meunasah Alue	3,741657	3,316625	6,244998	C2
14	Meunasah Mesjid	1,732051	3,464102	8,717798	C1
15	Meunasah Panggoi	1,414214	3,316625	8,660254	C1
16	Meuria Paloh	4,358899	0	9,055385	C2
17	Mon Geudong	6,403124	4,472136	13,19091	C2
18	Padang Sakti	12,76715	11,04536	20,04994	C2
19	Paloh Punt	7,416198	5,09902	14,07125	C2
20	Pusong Baru	4,582576	1,414214	8,124038	C2
21	Pusong Lhokseumawe	4,582576	1,414214	8,124038	C2
22	Tumpok Teungoh	4,242641	4,582576	5,567764	C1
23	Ujong Blang	4,795832	2,44949	7,211103	C2
24	Uteun Bayi	4,795832	4,242641	5,291503	C2
25	Uteunkot	8,124038	7,681146	16,34013	C2

Next step is Calculating the new Centroid.

Machine Learning Approach to Determine the Drug-Prone Areas in Lhokseumawe City, Indonesia

After each data distance is calculated for each cluster, the next step is to group the data according to the cluster, the cluster group of a data is calculated from the shortest distance from the data to a cluster, add up all the data contained in the same cluster group and then divide by the number of data, using formula:

$$C1_{X1} = \frac{26}{5} = 5.2$$

$$C1_{X2} = \frac{7}{5} = 1.4$$

$$C1_{X3} = \frac{141}{5} = 28.2$$

$$C1_{X4} = \frac{36}{5} = 7.2$$

$$C1_{X5} = \frac{85}{5} = 17$$

$$C1_{X6} = \frac{99}{5} = 19.8$$

$$C2_{X1} = \frac{27}{17} = 1.5882$$

$$C2_{X2} = \frac{40}{17} = 2.3529$$

$$C2_{X3} = \frac{531}{17} = 31.2352$$

$$C2_{X4} = \frac{128}{17} = 7.52941$$

$$C2_{X5} = \frac{284}{17} = 16.7058$$

$$C2_{X6} = \frac{340}{17} = 20$$

$$C3_{X1} = \frac{5}{3} = 1.6666$$

$$C3_{X2} = \frac{8}{3} = 2.6666$$

$$C3_{X3} = \frac{66}{3} = 22$$

$$C3_{X4} = \frac{21}{3} = 7$$

$$C3_{X5} = \frac{51}{3} = 17$$

$$C3_{X6} = \frac{59}{3} = 19.6666$$

Placement of data in the cluster with the closest distance to the cluster, namely obtaining data close to C1=5, C2=17, C3=3. After the data is grouped according to the cluster, the results of the new centroid can be seen in Table 9.

Table IX. New Centroid Value In First Iteration

<i>Centroid</i>	X1	X2	X3	X4	X5
C1	5.2	1.4	7.2	17	19.8
C2	1.5882352	2.35294	7.52941	16.70588	20
C3	1.6666666	2.66666	7	17	19.6666

The next step is to compare the result with the previous centroid value, if the value is the same then the iteration process is stopped. However, if the values are not the same, the steps of the data grouping process are repeated. The following are the centroid values obtained in this calculation.

Table X. Second Iteration

Centroid	X1	X2	X3	X4	X5
C1	5	1	7.2	17	19.8
C2	1.533333333	2.4	7.6	16.66667	20
C3	2	2.8	7	17	19.8

In the third iteration the search steps are carried out the same as the steps in the first and second iterations. The iteration is continued until the centroid value is non-repetitive and the same. The new centroid value in the third iteration can be seen in Table 11.

Machine Learning Approach to Determine the Drug-Prone Areas in Lhokseumawe City, Indonesia

Table XI. Third Iteration

<i>Centroid</i>	X1	X2	X3	X4	X5
C1	5.75	1	7.25	17	19.75
C2	1.5714	2.35714	7.57142	16.6428	20
C3	1.8571	2.571429	7.14285	17	19.8571

In the fourth iteration and so on, the search steps are the same as in the previous search. The new centroid value in the fourth iteration can be seen in table 12.

Table XII. Fourth Iteration

<i>Centroid</i>	X1	X2	X3	X4	X5
C1	5.75	1	7.25	17	19.75
C2	1.666667	2.25	7.66666	16.58333	20
C3	1.666667	2.66666	7.11111	17	19.8888

The new centroid value in the fifth iteration can be seen in table 13.

Table XIII. Fifth Iteration

<i>Centroid</i>	X1	X2	X3	X4	X5
C1	5	1.2	7.2	17	19.8
C2	1.777778	2.33333	7.88888	16.44444	20
C3	1.545455	2.54545	7.09090	17	19.9090

The new centroid value in the sixth iteration can be seen in the table below:

Table XIV. Sixth Iteration

<i>Centroid</i>	X1	X2	X4	X5	X6
C1	4.5	1.33333	7.33333	17	19.8333
C2	1.75	2.375	7.875	16.375	20
C3	1.545455	2.54545	7.09090	17	19.9090

The new centroid value in the seventh iteration can be seen in the table below:

Table XV. Seventh Iteration

<i>Centroid</i>	X1	X2	X3	X4	X5
C1	4.5	1.33333	7.33333	17	19.8333
C2	1.75	2.375	7.875	16.375	20
C3	1.545455	2.54545	7.09090	17	19.9090

In this study the K-means iteration stopped at the seventh iteration with an average value of C1 = 13.2, C2 = 13.81481 and C3 = 12.30303.

C. K-NN Calculation Results

After calculating the results of the cluster with k-means, then an analysis of the k-nn calculation will be carried out on the data of drug users in 2018-2021 in Lhokseumawe City, Indonesia. The following are the results of the calculation of the k-nn distance in table 15.

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Table XVI. Calculation results of K1, K2 and K3 values on the First test data

No	Distance	Class	K
2	1,414214	Tinggi	K3
8	1	Rendah	k1
18	1	Sedang	K2

Table XVII. Calculation results of K1, K2 and K3 values on the second test data

No	Distance	Class	K
1	1,732051	Rendah	K2
14	1,414214	Rendah	K1
15	1,732051	Rendah	K3

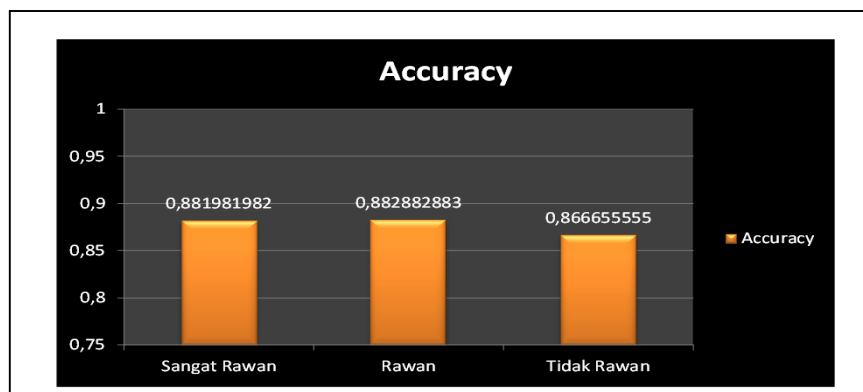
Table XVIII. Calculation results of K1, K2 and K3 values on the third test data

No	Distance	Class	K
4	3,464102	Sedang	K3
26	1	Rendah	K1
98	2,44949	Rendah	K2

Based on the results of the calculation of the values of K1, K2 and K3, the results of the calculation of accuracy are 87% which are shown in table 16.

Table XIX. K-NN Accuracy Calculation Results (ACC)

No.	Class	ACC
1	Sangat Rawan	0,881981982
2	Rawan	0,882882883
3	Tidak Rawan	0,866655555
Average Accuracy		0,877173473



D. System implementation

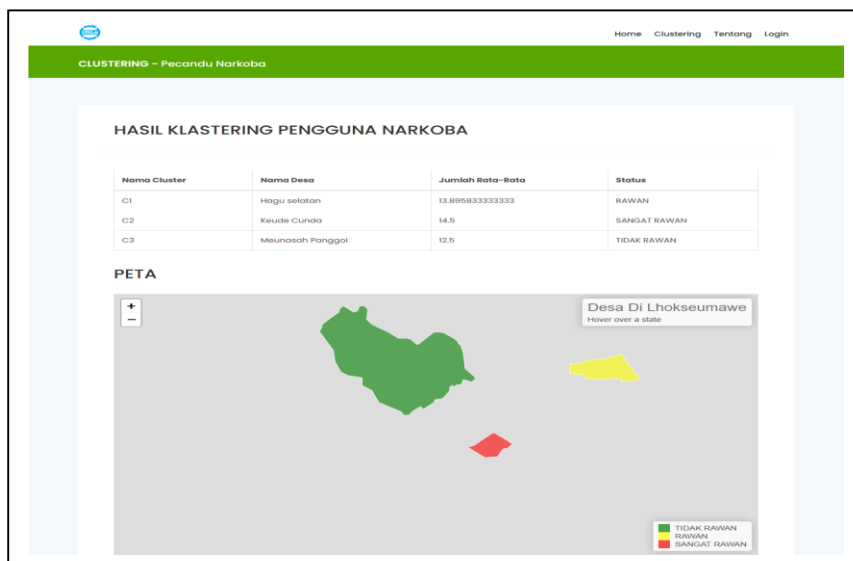


Fig.3. Drug User Data Clustering Page in Lhokseumawe City, Indonesia

Figure 2 contains information on clustering and this page used to determine drug-prone areas based on the selected area cluster. The classification results obtained from the application of machine learning algorithms to determine areas prone to drug users, in 2018 there were 4 villages with very prone status, 8 villages with prone status and 13 villages with non-prone status. In 2019 there were 19 villages with very prone status, 6 villages with prone status and 5 villages with non-prone status. In 2020 there are 24 villages with very prone status, 12 villages with prone status and 3 villages with non-prone status. In 2021 there are 20 villages with very prone status, 12 villages with prone status and 3 villages with non-prone status.

V. CONCLUSIONS

Based on the results of research that has been carried out, the application of machine learning algorithms to determine drug-prone areas in Lhokseumawe City, Indonesia has been successfully implemented. This research shows that the results of the analysis of the calculation of the k-means algorithm obtained that the average percentage of clusters in very prone areas is 49.50%, the percentage of clusters in prone areas is 29.26% and the percentage of clusters in non-prone areas is 21.23%. Furthermore, the results of testing with the K-NN algorithm with 98 training data and 20 testing data obtained an average accuracy value of 87%. Thus, this system can provide information related to drug-prone areas in Lhokseumawe City, Indonesia. So that it can assist the government in taking strategic steps in reducing the level of drug use in Lhokseumawe City, Indonesia.

ACKNOWLEDGMENT

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Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District



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ABSTRACT: The Sustainable Development Goals (SDGs) at ensuring a healthy life and promote well-being for all at all ages. In order to increase public access to quality health services, the World Health Organization introduced Primary Health Care. In Indonesia, the implementation of Primary Health Care was carried out based on community and community participation, namely Posyandu in every sub-district and village areas. This study at explore internal and external factors and to analyze strategies in the implementation of the Posyandu program. The research design used were qualitative and quantitative approaches where purposive sampling was applied to gathered the research subjects. The data was collected through a questionnaire, and then an Focus Group Discussion will be conducted. The data analysis used was the Strengths, Weaknesses, Opportunities, Threats analysis which followed by the Quantitative Strategic Planning Matrix analysis. The results showed that the internal and external position factors were in a strong position in the range of 3.00-4.00 which placed the implementation of posyandu in cell I in the internal and external matrix. The alternative strategy that gets the highest score is strategy 1 with a Total Attractive Score of 7.47. The conclusions from the results of the data analysis were: the dominant internal factor as a strength was the availability of cadres during the implementation of Posyandu should consist at least with 5 people, while the weakness found was that they did not have standard operating procedure for the implementation of Posyandu. External factors as the biggest challenges were choosing other health services, while as an opportunity was the policy of the central government by including Posyandu as one of the criteria for Puskesmas to be able to foster active Posyandu. The main priority strategy was to garner support from the business world and traditional leaders. The implication of this research was to socialize it to the business world and traditional leaders related to the Posyandu program to further garner support and cooperation.

KEYWORDS: implementation, Integrated Healthcare Center, strategy

INTRODUCTION

Healthy and quality human resources are the main capital or investment in health development. This is supported by the Sustainable Development Goals (SDGs) which states to ensure a healthy life and promote well-being for all people of all ages. To increase public access to quality health services, the World Health Organization introduced Primary Health Care (PHC). In Indonesia, the implementation of PHC is carried out based on community and community participation, namely Posyandu in every sub-district and village area. This is in line with the development of the development paradigm, a policy direction for health development has been set. contained in the 2020-2024 Medium-Term Development Plan (RPJM) in the health sector which focuses on preventive and promotive approaches as well as empowering families and communities in the health sector. One form of community empowerment efforts in the health sector is to develop Community Based Health Efforts (UKBM).

The existence of this Posyandu is an effort to support the accelerated reduction in infant mortality (IMR), maternal mortality (AKI), and under-five mortality (AKABA). Basic social services implemented at the Posyandu include Health and Nutrition Services, Early Childhood Education (PAUD), Toddler Family Development (BKB), Family Economic Improvement, Family Food Security, Social Welfare. The Posyandu activities have been carried out with the role of the community as cadres with the guidance of health workers and other parties related to community empowerment. Research conducted at the Posyandu in the Work Area of the Tambakboyo Public Health Center, Ngawi Regency, stated that each cadre has different attitudes and motivations so that

Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District

it has an impact on the performance of cadres in the implementation of posyandu so that it affects the quality of posyandu services.(Suharyani, 2018).

Based on data from the Denpasar City Health Office Profile in 2021, the active posyandu coverage in Denpasar City is 73.85%. The lowest active posyandu coverage is in the UPTD Puskesmas II, North Denpasar District Health Office at 13.51%(East Denpasar District, 2022). UPTD Puskesmas II, Denpasar Timur District Health Office, has 37 posyandu, some of which are classified as middle strata. Strata Madya Posyandu are posyandu that have not been categorized as active posyandu. Strata Madya Posyandu are Posyandu that have been able to carry out activities more than 8 times per year, with Posyandu Management an average number of cadres of five or more people, but the coverage of the five main activities is still low, which is less than 50%(Ministry of Health, 2017). The performance of posyandu in the working area of the Hanopan Public Health Center, Arse Subdistrict as a whole is also low (70%). The low output of posyandu up to 82% is suspected to be the cause of poor posyandu performance(Siregar & Sulubara, 2020).

RESEARCH METHODS

The research is observational, because the data is obtained through observation and no treatment is carried out on the research subject during the study. The research design used is a combination of qualitative and quantitative methods. Determination of the research location by purposive sampling with posyandu criteria in the work area of UPTD Puskesmas II North Denpasar District Health Office with a total sample of 154 people conducted in April-June 2022. The instrument used in this study was in the form of a questionnaire with techniques and data collection using techniques surveys and interviews, document review, field observations and Focus Group Discussions (FGD). The analysis technique used in this research is descriptive qualitative analysis,

RESULTS AND DISCUSSION

UPTD Puskesmas II, North Denpasar District Health Office, the location is in the center of Denpasar city, precisely on Jalan Gunung Agung Gang II Number 8x Denpasar. The working area of UPTD Puskesmas II Health Office of North Denpasar District includes three villages/kelurahan, namely Pemecutan Kaja Village which consists of 13 hamlets; Ubung Kaja Village which consists of 18 hamlets and Ubung Village which consists of 4 neighborhoods. The working area of the UPTD UPTD Puskesmas II of the North Denpasar District Health Office is 10.17 km² with an area of each village/kelurahan is Pemecutan Kaja Village 3.85 km², Ubung Village 1.73 km² and Ubung Kaja Village 4.59 km². The total population in the working area of UPTD Puskesmas II Health Service of North Denpasar District in 2020 is 91,3447 people(East Denpasar District, 2022).

Table. 1 Number of Toddlers at Posyandu in the Work Area of UPTD Puskesmas II Health Office of North Denpasar District

No	Name of Village/Sub-district	Toddler		
		Man	Woman	Total
1	Ubung Kaja Village	351	331	682
2	Kaja's Pemecutan Village	299	330	629
3	Ubung Village	96	90	186
	Total	746	751	1497

Seen from table 1 above, the number of children under five who are registered at the posyandu is 1497 which is served by 37 posyandu. The number of posyandu is sufficient to meet the standards for the establishment of posyandu. Posyandu was formed by the village/kelurahan community with the aim of bringing basic health services, especially MCH, family planning, immunization, nutrition and diarrhea prevention closer to the community. One posyandu serves around 80-100 toddlers. In certain circumstances, such as geography, and or the number of children under five is more than 100 people, a new posyandu may be established (Faricatussoolichah, 2021).

Seen from table 2 below, only one posyandu is independent. Independent Posyandu is Posyandu which has been able to carry out activities more than 8 times per year, with an average number of cadres of five or more people, the coverage of the five main activities is more than 50%, is able to carry out development activities, and has obtained healthy funds from non-governmental organizations and joint business groups (community-managed businesses) used for health efforts in Posyandu(Ministry of Health, 2017). Farida et al (2018) mention that posyandu can be declared to be running well if the strata

Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District

reach full moon and are independent. Based on the report of the UPTD Puskesmas II of the North Denpasar District Health Office in 2021, most of the indicators of posyandu independence that have not made posyandu with full and independent strata are indicators of healthy fund coverage. The implementation of posyandu program activities is mostly sourced from government assistance (East Denpasar District, 2022). Basically, posyandu financing or funds can come from the community as users, the private sector or the business world as support, business results as the work of posyandu management, and the government. (Ministry of Health, 2017).

Table 2 Posyandu Strata in the Work Area of UPTD Health Center II Health Office of North Denpasar District in 2021

No	Name of Village/Sub-district	Primary Posyandu	Intermediate Posyandu	Posyandu Purnama	Independent Posyandu	Number of Posyandu
1	Ubung Kaja Village	0	13	4	1	18
2	Slashing Village	13	2	0	0	15
3	Ubung Village	3	1	0	0	4
	Total	16	16	4	1	37

Table 3 Calculation Results of Posyandu Program Implementation in the Work Area of UPTD Public Health Center II Health Office of North Denpasar District

No	Assessed Variables	Score Earned	Highest Score	Score	Score* (%)	Category
1	Communication	511	512		99.80	Very good
2	Availability of resources	741	745		99.46	Very good
3	Attitude and Commitment from program implementers	888	1119		79.36	Well
4	Bureaucratic Structure	44	86		34.38	Enough
	Total	2184	2462		62, 60	Well

Implementation of the Posyandu Program in the Work Area of UPTD Puskesmas II, North Denpasar District Health Office

The results showed that the implementation of the posyandu program in the working area of UPTD Puskesmas II, East Denpasar District Health Office was in the good category (62.60%). Based on the results of interviews with respondents, there has been an increase in the communication variable where socialization about posyandu has begun to be intensified to increase public understanding of the importance of the posyandu program. Resources have also begun to be increased with training for cadres held in early 2022. Community empowerment activities that are carried out well will have the opportunity to influence the increase in community participation in preventing malnutrition in children under five. (Aidha, 2017).

Communication Variables

The communication variable in the implementation of the posyandu program relates to how the policy is communicated which includes socialization at the level health centers, villages and communities. The information provided is expected to be well communicated in the form of program objectives, benefits, implementation mechanisms, and support including support from across sectors. The results of the study for the communication variable were included in the very good category (99.80%).

Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District

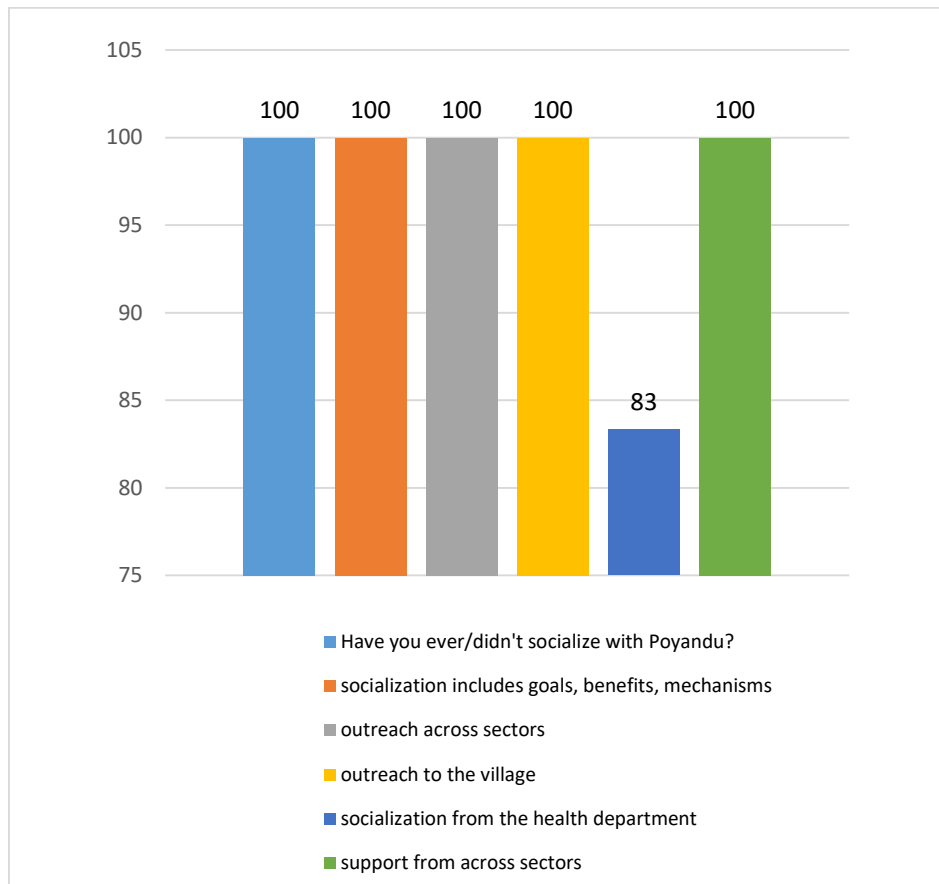


Figure 1 Results of Questionnaire Recapitulation Questions Regarding Communication Variables

Based on Figure 1, it can be seen that the respondents' answers are in the range of 80-100%, which means that the socialization from the health office to the puskesmas, then forwarded to the village, across sectors related to objectives, benefits, implementation mechanisms, and the necessary support can be carried out very well. This is in line with research conducted at the posyandu in the working area of the Kuta Blang Health Center, Bireuen Regency which stated that to increase the participation of mothers in posyandu activities, it could be done through an interpersonal communication approach from posyandu cadres about posyandu activities. The interpersonal communication emphasized that cadres as educated personnel in the health sector or mediators who are closest to mothers must have a role in giving positive attitudes to mothers. (Bukhari et al., 2019).

Resource Availability Variables

The variable availability of resources relates to supporting resources to implement the program which includes human resources, infrastructure and funding. The results showed that the availability of sources in the very good category. This is a strength in the development of posyandu. The availability of resources is an important factor in realizing the goals of the posyandu program.

Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District

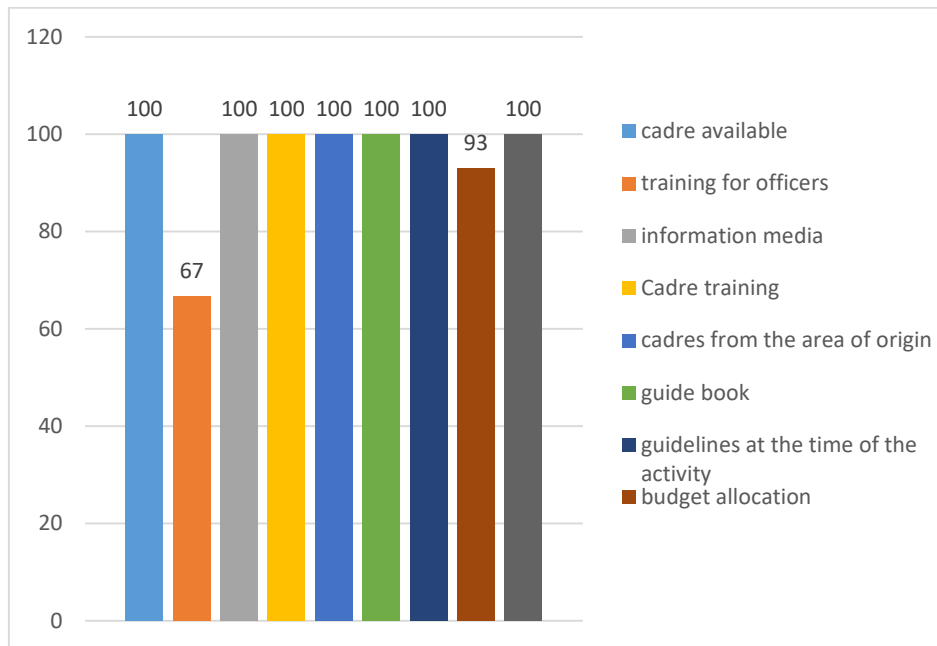


Figure 2 Results of the questionnaire recapitulation of questions regarding the Resource Variables

Judging from Figure 2, the question regarding training for puskesmas officers is the question that gets the smallest score compared to the other 9 questions, which is as much as 66.67%. This is also supported by the fact that the allocation of funds is still not maximally budgeted. Funding itself is the cost used in activities both in terms of availability, sources and allocation of funds.

Based on the results of observations and observations in the field, there is no funding allocation for posyandu training and development from the health office and puskesmas. Even villages and sub-districts have not optimally allocated funds for posyandu development. To increase the budget allocation, the government has provided policies related to the utilization of village funds for the health sector as stated in the Decree of the Minister of Health of the Republic of Indonesia no. HK.02.02/Menkes/52/2015, one of the points of which is to encourage villages to allocate and utilize village funds for Community Based Health Enterprises (UKBM), one of which is the posyandu program.

Attitude and Commitment Variables

The attitude and commitment variables of the program implementers are related to the willingness of the implementers to complete the public policy or program. Skill alone is not sufficient without the willingness and commitment to implement policies. The key to the success of a program or policy implementation is the attitude of workers towards acceptance and support for the policy or support that has been established.

Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District

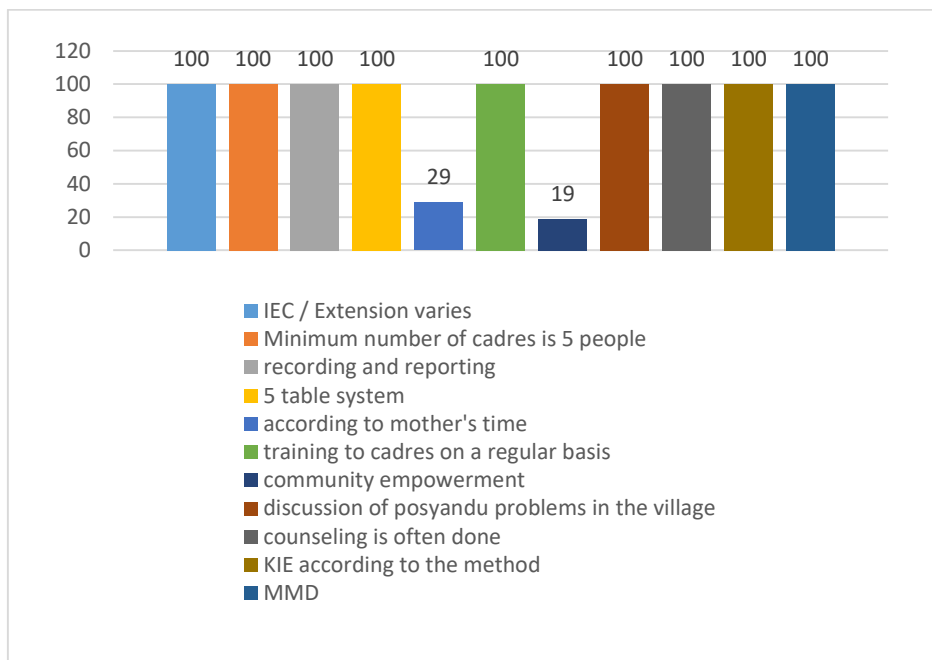


Figure 3 Results of Questionnaire Recapitulation Questions About Attitudes and Commitments from Program Implementers

The results showed that the attitude and commitment of program implementers were in the Good category (79.36 %). Based on Figure 3, it can be seen that the two questions to the respondents had low scores. The lowest is that community empowerment in involving the community in planning and implementing posyandu activities is still lacking. This is supported by the answers of respondents who did not adjust the mother's time to the opening time of the posyandu. Mothers of children under five who are involved in planning the opening of the posyandu will have an impact on the level of community participation in supporting the posyandu program (Estuti, 2014).

Bureaucratic Structure Variables

The bureaucratic structure is very important in the implementation of the posyandu program because it explains the task structure of the policy implementers, breaks it down into task details and sets standard operating procedures. Variable bureaucratic structure in the implementation of the posyandu program is seen from the details of tasks in the form of SK and standard operating procedures (SOP), so that in carrying out tasks it becomes more focused. Each activity carried out is stated in the form of a decree with the details of the duties of each implementer described. SOPs are made based on the reference book of the Ministry of Health of the Republic of Indonesia but adjust to the conditions of each health center.

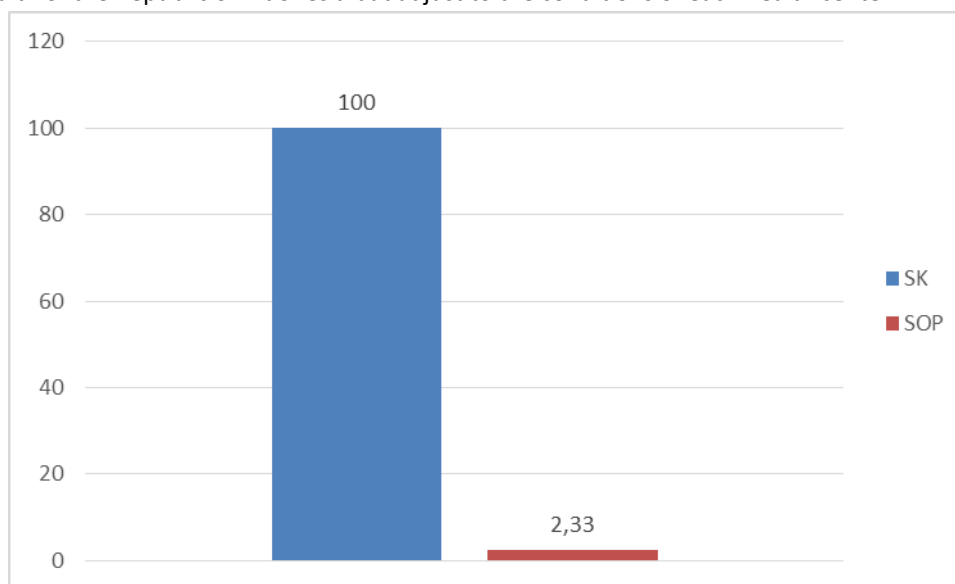


Figure 4 Results of Questionnaire Recapitulation Questions Regarding Bureaucratic Structure Variables

Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District

Based on the results of research related to the bureaucratic structure variable, it is included in the sufficient category, where in Figure 4 only 2.33% have SOPs for implementing posyandu. Based on field observations, this is due to a lack of information related to SOPs in Posyandu services. In carrying out the activities of Posyandu cadres, they are only guided by the technical manual for the implementation of Posyandu. Research conducted in Donomulyo Village states that the application of SOPs has an influence on the skills of cadres (Windiastuti et al., 2019).

Internal and External Factors in the Implementation of the Posyandu Program in the Work Area of UPTD Puskesmas II Health Office of North Denpasar District

Determination of internal and external factors based on the results of field observations and documents, distributing questionnaires and *Focus Group Discussion (FGD)*. Internal factors consist of Strengths and Opportunities, while external factors consist of Weaknesses and Threats and can be seen in the following table:

Table 4 Factors Strengths, Weaknesses, Opportunities and Threats of Implementing the Posyandu Program in the Work Area of UPTD Puskesmas II Health Office of North Denpasar District

No	Variable	Strength	Weakness	Opportunity	Threat
1	Communication	Availability of Support from Cross Sectors		The policy of the central government by including posyandu as one of the criteria for the puskesmas to be able to foster active posyandu, the existence of directives from the Health Office to program holders regarding the Posyandu program,	Lack of cooperation with other health facilities, Lack of involvement of traditional leaders, lack of support from business groups/business world
2	Availability of resources	Posyandu cadres have been trained, There are information media for posyandu socialization and health education, There are facilities in organizing posyandu	Limited allocation of funds for posyandu, limited capacity of cadres in technical implementation of posyandu, limited guidebooks related to posyandu	The location of the puskesmas area is quite wide but overall it is easily accessible by officers	
3	Attitude & Commitment	Availability of cadres in the implementation of Posyandu at least 5 people	Lack of evaluation of posyandu implementation	The existence of Posyandu-assisted area holders at the puskesmas,	Not all people want to come to participate in posyandu,
4	Bureaucratic structure	All posyandu have SK	Does not yet have a standard operating procedure (SOP) for the implementation of posyandu		

Strategy for Strengthening Implementation of The Posyandu Program in the Work Area of Uptd Puskesmas Ii Health Department of Denpasar Utara District

Table 5 Implementation Internal Matrix Posyandu in the Working Area of UPTD Puskesmas II, North Denpasar District Health Office (IFAS)

Internal Strategy Factors	Weight*	Ratings*	Score (Weight x Rating)
Strength:			
- Availability of cadres in the implementation of Posyandu at least 5 people	0.15	4.00	0.58
- Posyandu cadre training has been carried out	0.14	3.89	0.55
- Health education and information dissemination activities have often been carried out	0.14	3.89	0.55
- There is information media for posyandu socialization and health education	0.13	3.67	0.49
- There are facilities in organizing posyandu	0.14	3.78	0.52
Weakness :			
- Limited allocation of funds for posyandu	0.07	2.00	0.15
- Limited capacity of cadres in technical implementation of posyandu	0.06	1.78	0.11
- Limited manuals related to posyandu	0.06	1.56	0.09
- Lack of evaluation of posyandu implementation	0.06	1.67	0.10
- Do not have standard operating procedures (SOP) for posyandu implementation	0.05	1.33	0.06
IFAS Total Score	1.00		3.20

After determining the internal and external factors, it is continued by giving weights and ratings by 9 respondents and then IFAS (Internal Strategic Factor Analysis Summary) and EFAS (External Strategic Factor Analysis Summary) analysis are performed.) is 3.20. The internal factor calculation matrix is shown in table 5 above, it can be seen that the components in the dominant strength factor have the same weight, namely 0.15, while the rating value varies. The results of the score (multiplication of weight by rating) the highest strength value is 0.58 that is Availability of cadres in the implementation of Posyandu at least 5 people. This is the attitude and commitment of program implementers so that posyandu can be implemented in accordance with the 5 steps of posyandu. For the weakness factor, the lowest score is 0.06, namely Do not have standard operating procedures (SOP) for posyandu implementation. Based on the results of field observations, posyandu cadres do not know about standard operating procedures (SOPs) for the implementation of Posyandu. Puskesmas and Villages do not make SOPs for Posyandu implementation. In fact, this SOP is very important to be made as a standard/standard guide in the implementation of posyandu so that it runs according to the expected goals.

Table 6 External Matrix of Posyandu Implementation in the Work Area of UPTD Puskesmas II Health Office of North Denpasar District (EFAS)

External Strategy Factors	Weight*	Ratings*	Score (Weight x Rating)
Opportunity:			
- The policy from the central government by including posyandu as one of the criteria for puskesmas is able to foster active posyandu	0.16	4.00	0.64
- There is a directive from the Health Office to program holders regarding the Posyandu program	0.15	3.67	0.54
- The location of the puskesmas area is quite wide but overall it is easily accessible by officers	0.15	3.78	0.57

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- There are holders of Posyandu-assisted areas at the puskesmas	0.14	3.56	0.51
- There is support from across sectors	0.13	3.33	0.44
Threat :			
- Not all people want to come to participate in posyandu	0.05	1.22	0.06
- Prefer other health services	0.04	1.00	0.04
- Lack of cooperation with other health facilities	0.05	1.33	0.07
- Lack of involvement of traditional leaders	0.06	1.44	0.08
- lack of support from business groups/business world	0.07	1.67	0.11
Total EFAS Score	1.00	3.06	3.06

The results of the calculation of the value of external factors obtained the total value (opportunities and threats) is 3.06. The external factor calculation matrix is shown in table 6 above, with the results on the probability factor that all components have the highest weight, namely 0.16 with varying ratings. The results of the score (multiplication of weight by rating) obtained the highest opportunity value (0.64), namely The policy from the central government by including posyandu as one of the criteria for puskesmas is able to foster active posyandu. Cadre registration is taken monthly by Puskesmas officers and reported monthly to district/city officers. According to Permendagri Number 54 of 2007, reporting from the district/city to the province, at least every 4 (four) months and reporting from the province to the center, at least every 6 (six) months is submitted to the Director General of Village Government, Ministry of Home Affairs (Ministry of Health, 2020). The threat factor with the lowest value is with a score of 0.04 which prefers other health services. The results of the respondents' answers stated that the timing of the posyandu service did not adjust to the time of mothers of toddlers. This is supported by research conducted at the Posyandu in the working area of the Banda Aceh City Health Center that time constraints and no family support can affect the decrease in visits by infants and toddlers to Posyandu (Fatimah et al., 2020).

The combination of the IFAS and EFAS matrices produces an internal-external matrix containing nine types of cells showing the combined total weighted values of the IFAS and EFAS matrices. Based on the analysis, it shows that the position of internal and external factors is in a strong position in the range of 3.00-4.00 which places the implementation of posyandu in UPTD Puskesmas II, North Denpasar District Health Office, in cell I in the internal and external matrix.

The strategy that fits the cell is to grow and develop with vertical integration, which can be done with a strategy that increases cooperation and coordination with components related to the growth of the posyandu program. The alternative strategies obtained include:

1. Gaining support from the business world and traditional leaders. (Strategy 1)
2. Improving the role and function of the posyandu working group. (Strategy 2)
3. Improving posyandu technical guidance and assistance. (Strategy 3)
4. Activate the role of posyandu cadres in carrying out home visits. (Strategy 4)
5. Advocating for village heads/Lurah to improve posyandu performance. (State 5)

Analysis of the Strategy for Strengthening the Implementation of the Posyandu Program in the Work Area of the UPTD Puskesmas II Health Office, North Denpasar District.

The priority strategy in implementing the posyandu program is obtained by using QSPM analysis. The QSPM technique is designed to determine the relative attractiveness and evaluate alternative strategic options that can be implemented objectively, based on the internal and external success factors that have been identified in the previous EFE and IFE matrices. QSPM is the final stage matrix in the framework of strategy formulation analysis. This technique clearly shows the best alternative strategy to choose from. The QSPM matrix uses the weight value and the Attractive Score (AS) value that is assessed by the respondents. From these two values, you will get the Total Attractive Score (TAS). The strategy with the largest TAS value is the main choice of priority strategy, while the strategy with the smallest TAS value is the last choice. From the results of the research conducted, the results of the QSPM calculations are obtained according to Figure 4. 5 above, the alternative strategy that gets the highest score

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is strategy 1 with a TAS value of 7.47. The strategy is Gaining support from the business world and traditional leaders. Efforts to increase the role and function of the Posyandu are not solely the responsibility of the government. In this case, it is hoped that there will be support from the business world and traditional leaders who also play an important role in the development of posyandu. Posyandu managers are expected to be able to carry out socialization related to the posyandu program to garner support from the business world and traditional leaders. The form of support is not only in the form of funds, but also in the form of human resources, products or services produced, network access and promotion and public communication as needed. The business world provides facilities and financial support for the implementation of posyandu activities. Take an active role as a volunteer in the implementation of posyandu activities (Ministry of Health, 2017). The role of traditional leaders such as the traditional Klian is also very important in supporting Posyandu activities so that the community, especially women and children who use the facilities, will come to the Posyandu more often every month. There is an assumption that if the mother or the community does not visit the Posyandu, they will be penalized or excluded from community activities in the area (Maisya & Putro, 2011).

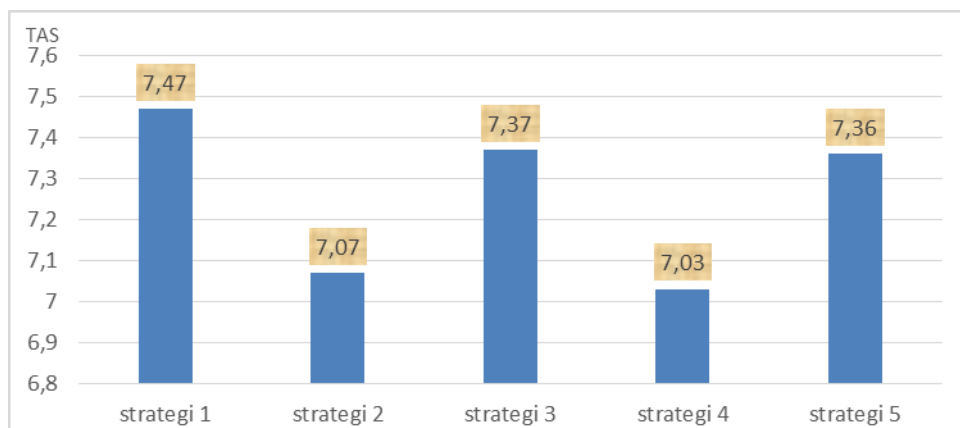


Figure 5 Results of QSPM Analysis of Posyandu Implementation in the Work Area of UPTD Puskesmas II Health Service of North Denpasar District

The second priority strategy with a TAS value of 7.37 is strategy 3, namely Improving the development and technical assistance of posyandu. Puskesmas officers are required to attend once a month to guide cadres in the implementation of posyandu. The dexterity and patience of the Cadres, with assistance from the Puskesmas in every Posyandu implementation, greatly influences efforts to optimize the results of examinations and monitoring the health of children under five. (Ningrum & Ernawati, 2021).

The third priority strategy with a TAS value of 7.36 is strategy 5, namely Advocating for the village head/Lurah to improve posyandu performance. The Posyandu assists the Village Head in improving Village Community Health Services. The LKD management is determined by a Village Head Decree. According to Permendagri 19 of 2011 basic social service activities can be carried out integrated with Posyandu activities. The implementation of posyandu is very important to be supported by the village both for allocating funds and increasing the active role of the community in efforts to organize posyandu. It is hoped that the provision of funds for posyandu activities will not only be used for infrastructure, cadre incentives and the provision of Food Supplements (PMT) for toddlers, but also for cadre capacity building and cadre transportation. The role of the village head as a unit for making any policies that are planned in village development without the approval of the village head then the development cannot be carried out. Because the role of the village head as master key in making development decisions and policies. Whereas the function of the village head as an agent of change must be able to have the ability to control it optimally, to be able to provide public awareness which in essence has a good influence on the public interest. (Nopiani, 2019).

The fourth priority strategy with a TAS value of 7.07 is strategy 2, namely Improving the role and function of the posyandu working group. In the development and implementation of posyandu, it is a cross-sectoral responsibility in the village area called the Posyandu Working Group. The Posyandu Working Group is needed as a forum for coordination of relevant stakeholders at every level and in the village/kelurahan. This Working Group is tasked with carrying out administrative, financial, and Posyandu development programs in accordance with community needs (Ministry of Health, 2017).

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The last ranking strategy with a TAS value of 7.03 is strategy 4, namely activating the role of posyandu cadres in carrying out home visits. Posyandu does not have to be open in one place, but can also be carried out by picking up the ball to the target by making home visits. Research conducted by Rakhmatika (2018) also mentioned that Posyandu cadres who have not played an active role are expected to play a more active role through home visits to mothers who have toddlers. The high level of cadre activity is influenced by good knowledge about posyandu, high motivation, and not working of these cadres (Profita, 2018).

CONCLUSION

Internal factors in the implementation of the posyandu program that become strengths are: the availability of cadres in the implementation of Posyandu at least 5 people which is the greatest strength, Posyandu cadre training has been carried out, Health education and information dissemination activities have often been carried out, there is information media for posyandu socialization and health education, there are facilities in the implementation of posyandu, while the weakness is limited allocation of funds for posyandu, limited ability of cadres in technical implementation of posyandu, limited manuals related to posyandu, lack of evaluation of posyandu implementation, and not having Standard Operating Procedures (SOP) for posyandu implementation as the biggest weaknesses. External factors in the implementation of the posyandu program that become opportunities are: policies from the central government by including posyandu as one of the criteria for Puskesmas to be able to foster active posyandu as the greatest opportunity, There are directions from the Health Office to program holders regarding the Posyandu program, The location of the Puskesmas area is quite wide but overall easy to reach by officers, The existence of Posyandu fostered area holders in Puskesmas, There is support from across sectors, while the obstacles are that not all people want to come to participate in Posyandu, Preferring other health services as the biggest threat, lack of cooperation with other health facilities, Lack of involvement of traditional leaders, and lack of support from business groups/ business world. The main strategy in strengthening the implementation of the posyandu program in the working area of UPTD Puskesmas II, North Denpasar District Health Office, can be done through: garner support from the business world and traditional leaders.

THANK-YOU NOTE

We convey our gratitude to the respondents, UPTD Puskesmas II, North Denpasar District Health Office, Ubung Village Head, Ubung Kaja Village Head and Pemecutan Kaja Village Head.

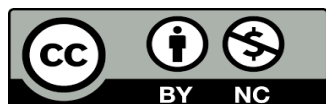
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Building Professionalism through the Nursing Committee to Improve Nurse Performance During Covid-19 Pandemic



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ABSTRACT: The quality of services carried out by nursing staff can be assessed as an indicator of good or bad service quality in hospitals, so nurses are required to have good knowledge, skills and ethics and professional discipline, to carry out their daily duties professionally. Based on data from the American Nurses Association (ANA) (2017) regarding the implementation of the Nursing Committee (nursing committee) in hospitals, 88% can increase the professionalism of nursing staff to improve the quality of a hospital. This value must be achieved during the Covid pandemic.

Respondents in this study were nurses at the Prima Medika General Hospital Denpasar, carried out during the Covid period. The number of respondents in this study were 168 respondents using the Nonprobability technique, namely the saturated sample or often called total sampling. This research uses Structural Equation Modeling (SEM) analysis of SmartPLS 3.2.8 program.

The results of this study indicate that: 1) Credentials Committee, Professional Quality Committee, and The Committee of Professional Ethics and Discipline has a positive and significant impact on the professionalism of nurses, 2) Credentials Committee, Professional Quality Committee, and Professional Ethics and Discipline Committee has a positive and significant effect on nurse performance, and 3) Nurse professionalism has a positive and significant effect on nurse performance.

KEYWORDS: Credentials Committee, Professional Quality Committee, Professional Ethics and Discipline Committee, Nursing Professionalism, and KiNurse work

INTRODUCTION

This study aims to explain theoretically the relationship between the variables to be studied, namely: The relationship between the independent variable (exogenous) and the dependent variable (indogen), including if any involves moderating or intervening variables (Sugiyono, 2016:60).

In an effort to improve the performance of nurses in hospitals, the Nursing Committee has a very important role in growing the professionalism of nurses. Hospitals are required to provide maximum service to the community, but the lack of a good role by the nursing committee at the hospital will affect the professionalism of nurses so that it has an impact on the lack of nurse performance, for that it is necessary to pay attention to the nursing committee at the hospital.

The case experienced by Prima Medika General Hospital Denpasar, in the sub-field of the Credential Committee nurses have not been distributed according to their competencies, this is indicated by the presence of nurses in the workplace that is not in accordance with their abilities. In the sub-field of the Professional Quality Committee for nursing staff at the Prima Medika General Hospital Denpasar, with a Diploma in Nursing education level, as many as 20 people have not carried out continuing education or have changed their level to Bachelor of Nursing (S1 Kep Ns). In the sub-field of the Professional Ethics and Discipline Committee, the number of violations of the nursing code of ethics increases every year, as for the types of violations of the nursing code of ethics committed, namely: types of violations of the category of nurse responsibility to patients (mild-moderate category), nurses' responsibilities towards tasks (mild-moderate category), nurses' responsibilities towards fellow nurses and other health professions (mild-moderate category), nurses' responsibilities towards the profession (mild-moderate category). In addition, related to the performance of nurses, the data included in the code of ethics book in the nursing committee, among which there are still nursing staff who have not carried out their duties in accordance with the Standard Operating Procedures in the hospital.

Based on data from the International Council Nurses (ICN) (2018), it is said that with the application of a nursing committee (Nursing Committee) carried out in almost all hospitals in the world, it can significantly increase nursing

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professionalism, including increasing competence, ethical standards, knowledge, compassion or love. high level of caring, namely 65% (2016), 78% (2017), and 85% (2018).

Different research results are shown by Gaudiere (2018) and Kuokkanen (2014) that the Nursing Committee has no significant effect on the professionalism of nursing staff. This shows that the implementation of the Nursing Committee is not necessary in increasing the professionalism of nursing staff. Similarly, research conducted by Toode (2015) and Kjellstrom (2017) showed that the Nursing Committee had no significant effect on the professionalism of nursing staff with work motivation as a moderating variable. The results of this study stated that the Nursing Committee through the Sub Committee on Credentials, Ethics and Professional Discipline and Professional Quality did not affect the professionalism of nursing staff in the practice of providing nursing care or midwifery care in health services.

The dissimilarity of research results or discrepancies in results and concepts regarding the influence of the Nursing Committee on professionalism, it is suspected that it is necessary to know the moderating role of work motivation. The Nursing Committee cannot simply influence the level of professionalism, but must be based on employee motivation to become professional.

Previous research has more aggregated the three sub-committees into a nursing committee construct. Very limited is done by separating each sub-committee into a stand-alone construct.

Based on the phenomena that occur in the field and some gaps in the results of previous research, the researchers want to test further about building professionalism through the nursing committee to improve the performance of nurses during the COVID-19 pandemic.

LITERATURE REVIEW

The Influence of the Credential Committee on Nurse Professionalism

Priharjo (2017) which describes about Nursing committee, which is a non-structural hospital organization that has the main function of maintaining and improving the professionalism of nursing staff through credential mechanisms, maintaining professional quality, and maintaining professional ethics and discipline. The organization of the nursing committee aims to improve the professionalism of nursing staff and regulate good clinical governance so that the quality of nursing and midwifery services that are patient safety-oriented in hospitals is more guaranteed and protected. The Credential Committee is to ensure that nursing personnel are competent in providing nursing services to patients in accordance with professional standards.

This is supported by research by Desilets (2007) finding that the Nursing Committee has an effect on the professionalism of nursing staff, Pavlish et al (2011) found that the Credentials Committee has a positive impact on the attitudes and behavior of nursing staff, so that the professionalism of nursing staff can be formed, Neill and Davis (2015), Khairurrozi (2016), Bekemier (2018), and Octarina's (2019) research also found that the Credential Committee had a positive impact on the professionalism of nursing staff.

The Influence of the Professional Quality Committee on Nurse Professionalism

Priharjo (2017) which describes KNursing committee, which is a non-structural hospital organization whose main function is to maintain and improve the professionalism of nursing staff through credentialing mechanisms, maintaining professional quality, and maintaining professional ethics and discipline. The organization of the Nursing Committee aims to improve the professionalism of nursing staff and regulate good clinical governance so that the quality of nursing and midwifery services that are patient safety-oriented in hospitals is guaranteed and protected. The Professional Quality Committee guarantees the quality of nursing services/care, so nursing staff as service providers must be competent, ethical, and culturally sensitive.

This is supported by the research of Desilets (2007) which found that the Nursing Committee had an effect on the professionalism of nursing staff, Pavlish et al (2011) found that the professional quality committee had a positive impact on the attitudes and behavior of nursing staff, so that the professionalism of nursing staff could be formed, Neill and Davis (2015), Khairurrozi (2016), Bekemier (2018), and Octarina's (2019) research also found that the Professional Quality Committee had a positive impact on the professionalism of nursing staff.

The Influence of Professional Ethics and Discipline Committee on Nurse Professionalism

Priharjo (2017) which describes KNursing committee, which is a non-structural hospital organization whose main function is to maintain and improve the professionalism of nursing staff through credentialing mechanisms, maintaining professional quality, and maintaining professional ethics and discipline. The implementation of the Nursing Committee aims to improve the professionalism of nursing staff and regulate good clinical governance so that the quality of nursing and midwifery services that are patient safety-oriented in hospitals is more guaranteed and protected. The Professional Ethics and Discipline

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Committee has a role that every nursing staff must have high professional discipline in providing nursing care and applying professional ethics in practice.

This is supported by research by Desilets (2007) who found that the Nursing Committee had an effect on the professionalism of nursing staff, Pavlish et al (2011) found that the nursing code of ethics had a positive impact on the attitudes and behavior of nursing staff, so that nursing staff professionalism could be formed, Borhani et al. (2013), Neill and Davis (2015), Vryonides et al (2015), Khairurrozi (2016), Bekemier (2018), and Octarina research (2019) also found that the Professional Ethics and Discipline Committee had a positive impact on the professionalism of nursing staff.

The Influence of Credential Committee on Nurse Performance

Research on the effect of the Credential Committee on the performance of nurses is very limited. The performance of nurses is the most important part that shapes the quality of service in hospitals. The performance of nurses reflects the quality of services that must be considered by the Credential Committee in the distribution of nurses must be in accordance with their competencies. This is supported by the research of Cook, SS, Kase, R., Middleton, L., & Monsen, RB (2003) who found that the Credentials Committee through paper and pencil/computer tests, oral presentations, gave an effect on physician practice performance. Zahara, Y., Sitorus, R., & Sabri, L. (2011) and Harahap, N. (2012) also found that the Nursing Committee by means of an organizational structure approach can motivate the performance of implementing nurses

The Influence of the Professional Quality Committee on Nurse Performance

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The Influence of Professional Ethics and Discipline Committee on Nurse Performance

Research on the effect of the Professional Ethics and Discipline Committee on the performance of nurses is very limited. The performance of nurses is the most important part that shapes the quality of service in hospitals. The performance of nurses reflects the quality of services that the Ethics and Professional Discipline Committee must pay attention to in providing direction to nurses to provide optimal information and always uphold the good name of the nursing profession. This is supported by research by De Brito, GMG, & de Oliveira Santa Rosa, D. (2019) which found that the Clinical Ethics Committee had an influence on the performance of nurses. Zahara, Y., Sitorus, R., & Sabri, L. (2011) and Harahap, N. (2012) also found that the nursing committee with an organizational structure approach could motivate the performance of implementing nurses..

The Effect of Professionalism on Nurse Performance

Professionalism is reliability and expertise in carrying out tasks so that they are carried out with high quality, at the right time, carefully, and in accordance with procedures, Siagian (2009:163). So that if the hospital has professional and highly skilled nurses, it will indirectly have a good performance.

This is supported by the research of De Brito, GMG, & de Oliveira Santa Rosa, D. (2019) which found that nurse professionals in the Clinical Ethics Committee had an influence on nurse performance. Hadisantoso, E., Sudarma, IM, & Rura, Y. (2017), and Gerhana, W., Reztj, R., & Wasis, W. (2019) also found that work professionalism has a positive and significant effect on performance.

HYPOTHESIS

- Hypothesis 1 (H1) : The Credentials Committee has a positive and significant effect on the professionalism of nurses.
- Hypothesis 2 (H2) : The Professional Quality Committee has a positive and significant effect on the professionalism of nurses.
- Hypothesis 3 (H3) : Professional Ethics and Discipline Committee has a positive and significant effect on the professionalism of nurses.
- Hypothesis 4 (H4) : The credential committee has a positive and significant effect on the performance of nurses.
- Hypothesis 5 (H5) : The Professional Quality Committee has a positive and significant effect on the performance of nurses.
- Hypothesis 6 (H6) : Committee of Ethics and Professional Discipline has a positive and significant effect on the performance of nurses.
- Hypothesis 7 (H7) : Nurse professionalism has a positive and significant effect on the performance of nurses.

METHOD

The research was conducted at the Prima Medika General Hospital Denpasar, which is located at Jalan Raya Sesetan No. 10, Denpasar City. This research was conducted for 4 months, from February to May 2022. The object of this research is the Nurse at the Prima Medika General Hospital Denpasar. The population in this study were 168 nurses at the Prima Medika General Hospital Denpasar. The sampling technique used is the Non Probability technique, namely the saturated sample or often called total sampling. So the sample in this study were all nurses at the Prima Medika General Hospital Denpasar, amounting to 168 nurses. All samples were used as respondents to answer the questionnaire questions that were distributed.

The analysis technique used is PLS. PLS is an analytical method for causal-predictive analysis in situations of high complexity and low theoretical support. In MPLS, model planning can be based on theory, empirical research results, normative and rational analogies (solimum, 2010). The focus is on getting a predictive model which is a relationship between previously unknown variables, useful for exploratory purposes (Hair et al., 2010, Ghozali, 2008: solimun, 2010). Therefore, PLS analysis allows to explore the relationship between latent variables, so as to design a structural model or in the form of a proposition.

RESULTS AND DISCUSSION

Hypothesis Testing Results

a) Live Effect Test

The results of the Path coefficient validation test on each path for a direct effect can be presented in Table 1.

Table

1

Live Effect Test Results

No	Relationship between Variables	Path Coefficient (Bootstrapping)	T-Statistics	P Values	Note:
1	Credentials Committee -> Nurse Professionalism	0.229	2,587	0.010	Significant
2	Professional Quality Committee -> Nursing Professionalism	0.346	2.823	0.005	Significant
3	Professional Ethics and Discipline Committee -> Nursing Professionalism	0.207	2.151	0.032	Significant
4	Credentials Committee -> Nurse Performance	0.178	2,361	0.019	Significant
5	Professional Quality Committee -> Nurse Performance	0.166	2011	0.045	Significant
6	Professional Ethics And Discipline Committee -> Nurse Performance	0.241	3.265	0.001	Significant
7	Nurse Professionalism -> Nurse Performance	0.270	4,019	0.000	Significant

Source: Data processed, 2022

b) Testing Indirect Effects Through Mediation Variables

Table

2

Recapitulation of Mediation Variable Test Results

No	Variable Mediation	(a)	(b)	(c)	(d)	Note:
1	Credentials Committee -> Nurse Professionalism->Nurse Performance	0.178 (Sig)	0.648 (Sig)	0.229 (Sig)	0.270 (Sig)	<i>partial mediation</i>

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No	Variable Mediation	(a)	(b)	(c)	(d)	Note:
2	Professional Quality Committee -> Nursing Professionalism- >Nurse Performance	0.166 (Sig)	0.664 (Sig)	0.346 (Sig)	0.270 (Sig)	<i>partial mediation</i>
3	Professional Ethics and Discipline Committee -> Nursing Professionalism->Nurse Performance	0.241 (Sig)	0.661 (Sig)	0.207 (Sig)	0.270 (Sig)	<i>partial mediation</i>

Note: Significant (Sig) = T-statistic > 1.96 at : 5%

Source: Data processed, 2022

DISCUSSION

1. The Influence of the Credential Committee on Nurse Professionalism

The results of hypothesis testing indicate that the Credential Committee has a positive and significant effect on Nurse Professionalism and can be proven. This result means that the better the Credentials Committee, the Nurse Professionalism will increase. The results of this hypothesis test support the various concepts and empirical findings that have existed previously that explain the Credential Committee has a positive and significant impact on the professionalism of nurses.

The results of the data analysis of this study were carried out with a total of 168 respondents at the Prima Medika General Hospital Denpasar with female respondents being more dominant at 86.9% compared to male respondents at 13.1%. The results of this study can be related to the age of the respondents. A person's knowledge is influenced by age. At the productive age, a person's absorption capacity is still good and he gets a lot of information. In this study, more respondents were in the age of 31-40 years by 54.8%. According to Notoatmodjo (2012) a person's age affects his knowledge. The level of knowledge is influenced by several factors, such as: length of work in an agency and education. In the results of this study, length of work respondent more than 5 years of 66.7%, and The respondent's education is D3 which is 57.7%. According to research conducted by Widiastuti (2019), education is needed to obtain information that can reproduce information so that it can improve the quality of life.

The granting of clinical authority (clinical privilege) to a nurse is carried out by carrying out a process called credentialing. Credentialing is the process of evaluating nursing staff to determine the feasibility of granting clinical authority. The credentialing process includes the stages of review, verification and evaluation of documents related to the performance of nursing staff. The credentialing process is carried out by the Credentials Sub Committee in the Hospital Nursing Committee. Nurse Credentials Sub Committee at Prima Medika General Hospital Denpasar. Finding The nurses felt in this study were reflected in the good Credentials Standard Operating Procedures and good clinical authority so that nurses are placed according to their respective reliability and expertise.

The results of this study support research conducted by Desilets (2007) found that the Nursing Committee has an effect on the professionalism of nursing staff, Pavlish et al (2011) found that the Credentials Committee has a positive impact on the attitudes and behavior of nursing staff, so that the professionalism of nursing staff can be formed, Neill and Davis (2015), Khairurrozi (2016), Bekemier (2018), and Octarina (2019) also found that the Credential Committee had a positive impact on the professionalism of nursing staff.

2. The Influence of the Professional Quality Committee on Nurse Professionalism

The results of hypothesis testing indicate that the Professional Quality Committee has a positive and significant effect on Nurse Professionalism. This result means that the better the Professional Quality Committee, the higher the Nurse Professionalism will be. The results of this hypothesis test support various concepts and empirical findings that have existed previously that explain the Professional Quality Committee has a positive and significant impact on Nurse Professionalism.

The results of the data analysis of this study were carried out with a total of 168 respondents at the Prima Medika General Hospital Denpasar with female respondents being more dominant at 86.9% compared to male respondents at 13.1%. The results of this study can be related to the age of the respondents. A person's knowledge is influenced by age. At the productive age, a person's absorption capacity is still good and he gets a lot of information. In this study, more respondents were in the age of 31-40 years by 54.8%. According to Notoatmodjo (2012) a person's age affects his knowledge. The level of knowledge is influenced by several factors, such as: length of work in an agency and education. In the results of this study, length of work respondent more than 5 years of 66.7%, and The respondent's education is D3 which is 57.7%. According to research conducted by Widiastuti (2019), education is needed to obtain information that can reproduce information so that it can improve the quality of life.

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The quality of the nursing profession must always be improved through continuous professional development programs that are systematically, directed and structured/structured. The quality of the nursing profession must always be improved continuously according to the development of health problems, science and technology, changes in professional standards, service standards and the latest research results. The findings felt by nurses in this study were reflected in the grouping of competencies and good career paths and mapping of nursing staff according to good practice areas so that nurses were placed according to their respective reliability and expertise.

The results of this study support research conducted by Desilets (2007) finding that the Nursing Committee has an effect on the professionalism of nursing staff, Pavlish et al (2011) found that the Professional Quality Committee has a positive impact on the attitudes and behavior of nursing staff, so that the professionalism of nursing staff can be formed, Neill and Davis (2015), Khairurrozi (2016), Bekemier (2018), and Octarina (2019) also found that the Professional Quality Committee had a positive impact on the professionalism of nursing staff.

3. The Influence of Professional Ethics and Discipline Committee on Nurse Professionalism

The results of hypothesis testing indicate that the Ethics and Discipline Committee of the profession has a positive and significant effect on Nurse Professionalism. This result means that the better the Professional Ethics and Discipline Committee, the higher the Nurse's Professionalism. The results of this hypothesis test support the various concepts and empirical findings that have existed previously which explain that the Professional Ethics and Discipline Committee has a positive and significant impact on Nurse Professionalism.

The results of the data analysis of this study were carried out with a total of 168 respondents at the Prima Medika General Hospital Denpasar with female respondents being more dominant at 86.9% compared to male respondents at 13.1%. The results of this study can be related to the age of the respondents. A person's knowledge is influenced by age. At the productive age, a person's absorption capacity is still good and he gets a lot of information. In this study, more respondents were in the age of 31-40 years by 54.8%. According to Notoatmodjo (2012) a person's age affects his knowledge. The level of knowledge is influenced by several factors, such as: length of work in an agency and education. In the results of this study, length of work respondent more than 5 years of 66.7%, and The respondent's education is D3 which is 57.7%. According to research conducted by Widiastuti (2019), education is needed to obtain information that can reproduce information so that it can improve the quality of life.

Every nursing staff must have high professional discipline in providing nursing and midwifery care and apply professional ethics in practice. The professionalism of nursing staff can be improved by fostering and enforcing professional discipline and strengthening ethical values in professional life. Ethical values are indispensable for nursing staff as a basis in providing patient-centered humane services. The findings felt by nurses in this study were reflected in the development of a good Nursing Code of Ethics and the application of good ethical principles so that nurses were able to apply professional ethics in practice.

The results of this study support the research conducted by Desilets (2007) found that the Nursing Committee had an effect on the professionalism of nursing staff, Pavlish et al (2011) found that the Nursing Code of Ethics had a positive impact on the attitudes and behavior of nursing staff, so that nursing staff professionalism could be formed, Borhani et al (2013), Neill and Davis (2015), Vryonides et al (2015), Khairurrozi (2016), Bekemier (2018), and Octarina (2019) also found that the Professional Ethics and Discipline Committee had a positive impact on the Professionalism of Nursing Personnel.

4. The Influence of Credential Committee on Nurse Performance

The results of hypothesis testing indicate that the Credential Committee has a positive and significant effect on the performance of nurses. This result means that the better the Credential Committee, the nurse's performance will increase. The results of this hypothesis test support the various concepts and empirical findings that have existed previously that explain the Credential Committee has a positive and significant impact on Nurse Performance.

The results of the data analysis of this study were carried out with a total of 168 respondents at the Prima Medika General Hospital Denpasar with female respondents being more dominant at 86.9% compared to male respondents at 13.1%. The results of this study can be related to the age of the respondents. A person's knowledge is influenced by age. At the productive age, a person's absorption capacity is still good and he gets a lot of information. In this study, more respondents were in the age of 31-40 years by 54.8%. According to Notoatmodjo (2012) a person's age affects his knowledge. The level of knowledge is influenced by several factors, such as: length of work in an agency and education. In the results of this study, length of work respondent more than 5 years of 66.7%, and The respondent's education is D3 which is 57.7%. According to research conducted by Widiastuti (2019), education is needed to obtain information that can reproduce information so that it can improve the quality of life.

The credential activity is to validate the competencies possessed by nurses according to their career paths, with credentials as an effort to validate the required education, certification, and licenses because credentials determine the clinical authority given to nurses who are competent from the level of knowledge and skills in the field of nursing as one characteristic.

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nurse professionals (Fatikhah, 2019). Credentials can prevent events that pose a threat to patient safety due to errors, negligence and lack of responsiveness to situations that occur in the hospital. (Carryer et al., 2007; Neuner-Jehle, Schmid, & Grüniger, 2013). So that nurses will indirectly improve the performance of nursing services to realize nursing practices that are in accordance with the existing corridors and also have no chance of becoming a threat in the health care system. (Wachter, 2012). The credential will assess professional nursing practice that is right on target and help nurses have a good sense of confidence in their abilities and improve the professional climate in the world of work and increase nurse performance (Cooper, 2016; Miller, 2011).

The results of this study support research conducted by Cook Research, SS, Kase, R., Middleton, L., & Monsen, RB (2003) found that the Credential Committee through paper and pencil/computer tests, oral presentations, gave an effect on practical performance. doctor. Zahara, Y., Sitorus, R., & Sabri, L. (2011) and Harahap, N. (2012) also found that the Nursing Committee by means of an organizational structure approach can motivate the performance of implementing nurses.

5. The Influence of the Professional Quality Committee on Nurse Performance

The results of hypothesis testing indicate that the Professional Quality Committee has a positive and significant effect on the performance of nurses. This result means that the better the professional quality committee, the higher the nurse's performance. The results of this hypothesis test support the various concepts and empirical findings that have existed previously which explain that the Professional Quality Committee has a positive and significant impact on Nurse Performance.

The results of the data analysis of this study were carried out with a total of 168 respondents at the Prima Medika General Hospital Denpasar with female respondents being more dominant at 86.9% compared to male respondents at 13.1%. The results of this study can be related to the age of the respondents. A person's knowledge is influenced by age. At the productive age, a person's absorption capacity is still good and he gets a lot of information. In this study, more respondents were in the age of 31-40 years by 54.8%. According to Notoatmodjo (2012) a person's age affects his knowledge. The level of knowledge is influenced by several factors, such as: length of work in an agency and education. In the results of this study, length of work respondent more than 5 years of 66.7%, and The respondent's education is D3 which is 57.7%. According to research conducted by Widiastuti (2019), education is needed to obtain information that can reproduce information so that it can improve the quality of life.

Nurse performance is the most important part that shapes the quality of service in hospitals. The quality of the nursing profession must always be improved continuously according to the development of health problems, science and technology, changes in professional standards, service standards and the latest research results. High professional quality will increase self-confidence, the ability to make appropriate clinical decisions, reduce the number of errors in nursing and midwifery services, and can increase the level of patient confidence in nursing staff in providing nursing and midwifery services.

The results of this study support research conducted by Research Kurniawan, MH, Hariyati, RTS, & Afifah, E. (2019) found that the guidance of the Professional Quality Committee has an influence on Nurse Performance. Zahara, Y., Sitorus, R., & Sabri, L. (2011) and Harahap, N. (2012) also found that the Nursing Committee with an organizational structure approach could motivate the performance of implementing nurses.

6. The Influence of Professional Ethics and Discipline Committee on Nurse Performance

The results of hypothesis testing indicate that the Professional Ethics and Discipline Committee has a positive and significant effect on Nurse Performance. This result means that the better the Professional Ethics and Discipline Committee, the higher the nurse's performance. The results of this hypothesis test support the various concepts and empirical findings that have existed previously which explain that the Professional Ethics and Discipline Committee has a positive and significant impact on Nurse Performance.

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Ethical values are indispensable for nursing staff as a basis in providing patient-centered humane services. The principle of "caring" is the core of the services provided by nursing personnel. Enforcement of professional discipline and development of professional ethics needs to be carried out in a planned, directed and high-spirited manner so that the nursing and midwifery services provided truly guarantee that patients will be safe and get satisfaction so that they reflect good service quality. The

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performance of nurses reflects the quality of services that must be considered by the ethics committee and professional discipline in providing direction to nurses to provide optimal information and always uphold the good name of the nursing profession.

The results of this study support research conducted by De Brito, GMG, & de Oliveira Santa Rosa, D. Research (2019) finding that the Clinical Ethics Committee has an influence on Nurse Performance. Zahara, Y., Sitorus, R., & Sabri, L. (2011) and Harahap, N. (2012) also found that the Nursing Committee by means of an organizational structure approach can motivate the performance of implementing nurses.

7. The Effect of Professionalism on Nurse Performance

The results of hypothesis testing indicate that Nurse Professionalism has a positive and significant effect on Nurse Performance. These results mean that the more professional nurses are, the more nurses' performance will be. The results of this hypothesis test support various concepts and empirical findings that have existed previously that explain Nurse Professionalism has a positive and significant impact on Nurse Performance.

The results of the data analysis of this study were carried out with a total of 168 respondents at the Prima Medika General Hospital Denpasar with female respondents being more dominant at 86.9% compared to male respondents at 13.1%. The results of this study can be related to the age of the respondents. A person's knowledge is influenced by age. At the productive age, a person's absorption capacity is still good and he gets a lot of information. In this study, more respondents were in the age of 31-40 years by 54.8%. According to Notoatmodjo (2012) a person's age affects his knowledge. The level of knowledge is influenced by several factors, such as: length of work in an agency and education. In the results of this study, length of work respondent more than 5 years of 66.7%, and The respondent's education is D3 which is 57.7%. According to research conducted by Widiastuti (2019), education is needed to obtain information that can reproduce information so that it can improve the quality of life.

Professionalism is reliability and expertise in carrying out tasks so that they are carried out with high quality, at the right time, carefully, and in accordance with procedures, Siagian (2009:163). So that if the hospital has professional and highly skilled nurses, it will indirectly have a good performance. This finding reflected in the attitude (attitude) of nurses and values (values) given by nurses when doing care.

The results of this study support research conducted by De Brito, GMG, & de Oliveira Santa Rosa, D. Research (2019) finding that nurse professionals in the Clinical Ethics Committee have an influence on nurse performance. Hadisantoso, E., Sudarma, IM, & Rura, Y. (2017), and Gerhana, W., Rezi, R., & Wasis, W. (2019) also found that work professionalism has a positive and significant effect on performance.

CONCLUSION

Based on the results of the analysis and discussion that has been carried out in this study, it can be concluded that: The Credential Committee has a positive and significant effect on Nurse Professionalism. This result means that the better the Credential Committee, the higher the Professionalism of Nurses. The results of this hypothesis test support the various concepts and empirical findings that have existed previously that explain the Credential Committee has a positive and significant impact on Nurse Professionalism.

The Professional Quality Committee has a positive and significant effect on Nurse Professionalism. This result means that the better the Professional Quality Committee, the higher the Nurse's Professionalism. The results of this hypothesis test support various concepts and empirical findings that have existed previously that explain the Professional Quality Committee has a positive and significant impact on Nurse Professionalism.

The Professional Ethics and Discipline Committee has a positive and significant effect on Nurse Professionalism. This result means that the better the Professional Ethics and Discipline Committee, the higher the Professionalism of Nurses. The results of this hypothesis test support the various concepts and empirical findings that have existed previously which explain that the Professional Ethics and Discipline Committee has a positive and significant impact on Nurse Professionalism.

The Credential Committee has a positive and significant effect on Nurse Performance. This result means that the better the Credential Committee, the better the Nurse's Performance. The results of this hypothesis test support the various concepts and empirical findings that have existed previously that explain the Credential Committee has a positive and significant impact on Nurse Performance.

The Professional Quality Committee has a positive and significant effect on Nurse Performance. This result means that the better the Professional Quality Committee, the higher the nurse's performance. The results of this hypothesis test support the various concepts and empirical findings that have existed previously which explain that the Professional Quality Committee has a positive and significant impact on Nurse Performance.

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The Professional Ethics and Discipline Committee has a positive and significant effect on Nurse Performance. This result means that the better the Professional Ethics and Discipline Committee, the higher the Nurse's Performance. The results of this hypothesis test support the various concepts and empirical findings that have existed previously which explain that the Professional Ethics and Discipline Committee has a positive and significant impact on Nurse Performance.

Nurse professionalism has a positive and significant effect on Nurse Performance. These results mean that the more professional nurses increase, the nurse's performance will increase. The results of this hypothesis test support various concepts and empirical findings that have existed previously that explain Nurse Professionalism has a positive and significant impact on Nurse Performance.

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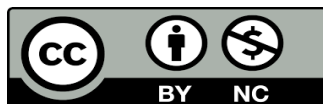
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The Effect of Leadership and Financial Incentives on Job Satisfaction and Employees Performance at Ud. Kusuma Bali Mandiri



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ABSTRACT: This study aims to analyze the relationship of leadership, financial incentives, job satisfaction, and employee performance. The statistical technique used to analyze the sample data and the results were applied to a population of 80 clear respondents and the sampling technique was the saturated sampling technique from the population that was carried out randomly. To test the hypothesis and produce a fit model, this study uses Structural Equation Modeling (SEM) with a variance based or component based approach with Partial Least Square (PLS). The results showed that Leadership has a positive and significant effect on job satisfaction on UD. Kusuma Bali Mandiri. This means that the better the leadership, the higher the job satisfaction of employees. Financial incentives have a positive and significant effect on job satisfaction. Leadership has a positive and significant effect on employee performance. Financial incentives have a positive and significant effect on employee performance. Job satisfaction has a positive and significant effect on employee performance.

KEYWORDS: leadership, financial incentives, job satisfaction, employee performance

INTRODUCTION

Leadership is an activity to influence others to be directed in achieving organizational goals and by having a high enthusiasm attitude. It is a human factor that binds a group together and motivates employees in achieving goals (Handoko 2011). Leadership is used as one of the success factors in motivating employees to achieve goals in an organization. The important role of leaders as movers and directors in an organization in achieving goals is not an easy task, because they must understand each employee's personality differently. According to Rivai (2011:2), states that leadership broadly includes the process of influencing in determining organizational goals, motivating the behavior of followers to achieve the goals that have been set. According to Wibowo (2014:265) leadership is essentially the ability of individuals to use their power to carry out the process of influencing, motivating, and supporting businesses that enable others to contribute to the achievement of organizational goals. Leadership is one of the important factors that can affect work motivation. Effective leadership must provide direction to the efforts of all workers in achieving organizational goals. Without leadership or guidance, the relationship between individual goals and organizational goals will be tenuous and weak. Such conditions lead to a situation where a person works for his personal goals, while organizational goals become inefficient in achieving his goals.

Providing financial incentives for employees is one form of policy that needs to be considered by the company to be able to motivate its employees. Providing financial incentives to employees is one of the important aspects to pay attention to in relation to the company's or organization's attention to its employees. The provision of incentives also indicates the policy of the company or organization in treating its employees fairly. According to Hasibuan (2013: 118), incentives are additional remuneration given to certain employees whose achievements are above standard achievements. This incentive wage is a tool used by supporters of the fair principle in providing compensation. According to Al-Nsour (2012) financial incentives mean the amount of money paid to employees, either in direct form or in the form of monthly payments including all additional income for employees. Financial incentive is a stimulus or encouragement given to employees based on their work performance in the form of money or goods so that in employees there is a greater enthusiasm for achievement. So that the work achieved is in accordance with individual and company goals. Incentives are intended as a form of appreciation to employees for their contributions to the organization, which is primarily reflected in their work performance. According to Handoko (2011:176) the purpose of the incentive system is essentially to increase employee motivation in an effort to achieve organizational goals by offering financial

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incentives, for example this system does not include payment of overtime wages, wages for not working, or differential wages based on shifts. but in excess of basic wages and salaries. Incentives given to employees are expected to be able to motivate employees to work. So if employees are motivated to work with additional incentives provided by the company, this will indirectly also affect employee performance which will also increase. Providing financial incentives as a form of motivation for employees so that they will be able to create impetus within employees to try to be better and professional in carrying out their duties and obligations at work. this will also indirectly affect the performance of employees which will also increase. Providing financial incentives as a form of motivation for employees so that they will be able to create impetus within employees to try to be better and professional in carrying out their duties and obligations at work. this will also indirectly affect the performance of employees which will also increase. Providing financial incentives as a form of motivation for employees so that they will be able to create impetus within employees to try to be better and professional in carrying out their duties and obligations at work.

Job satisfaction is a positive feeling towards work resulting from an evaluation of its characteristics (Robbins, 2017: 49). According to Sinambela (2017: 303) job satisfaction is a feeling of pleasure towards his work which is produced by his own efforts and which is supported by things from outside himself, on the working conditions, work results and work itself. Job satisfaction shows the match between one's expectations that arise and the rewards provided for work. Satisfaction is also closely related to the theory of justice, psychological agreement and motivation. According to Kaswan (2012) provides a conference definition of job satisfaction which includes reactions or attitudes of cognitive, affective and evaluative, and states that job satisfaction is a happy emotional state or positive emotion that comes from evaluating one's job or work experience. Job satisfaction is the result of employees' perceptions of how well the job provides things that are considered important. KJob satisfaction must be improved better, systematically, planned and continuously to balance the conditions of the environment which always require skilled work assignments and are ready to face various challenges and problems that arise in carrying out their duties so that they are able to carry out their respective responsibilities.

High employee performance is needed for employees in the context of completing their duties and responsibilities at work. Sinambela (2012:3) suggests that employee performance is defined as the employee's ability to perform a particular skill. In achieving good performance motivation is described as an inner force that encourages individuals to act on something (Kiruja and Makuru, 2013). According to Mangkunegara (2015:67), employee performance is the main implementer of every organizational function on existing facilities, infrastructure, and infrastructure, employees are one of the key organizational factors that must be shown because they always experience various dynamics within the organization. Performance can be influenced by several factors from within and from outside the employees themselves. Factors from within (internal) can be in the form of employee pride in their work, desire to advance or have a career, feeling well needed, ability to get along with co-workers and awareness of work responsibilities. While factors from outside (external) employees themselves can be in the form of established communication, compensation or incentives received, opportunities for careers, and placements according to their abilities. Individual and group behavior designing effective work teams and demonstrating how leadership patterns and providing financial incentives to produce outputs are one of the things that affect employee motivation and work performance. Based on these,

LITERATURE REVIEW

1. The Effect of Leadership on Job Satisfaction

Leadership is used as one of the success factors in motivating employees to achieve goals in an organization. The important role of leaders as movers and directors in an organization in achieving goals is not an easy task, because they must understand each employee's personality differently. According to Robbins (2017) leadership is the ability to influence a group towards achieving a set vision or goal. According to Tambunan (2015:45) leadership is someone who occupies a formal position in an organization or country who has roles and responsibilities and authority over the organization to achieve the desired goals together. In achieving this goal,

Based on research conducted by Palupi, et al., (2017) leadership has an effect on employee job satisfaction. The results of this study are in accordance with the results of research conducted by Shah, et al., (2017) found that leadership has a positive effect on job satisfaction.

2. The Effect of Financial Incentives on Job Satisfaction

Providing financial incentives to employees is one of the important aspects to pay attention to in relation to the company's or organization's attention to its employees. The provision of incentives also indicates the policy of the company or organization in treating its employees fairly. According to Hasibuan (2013: 118), incentives are additional remuneration given to certain employees whose achievements are above standard achievements. This incentive wage is a tool used by supporters of the

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fair principle in providing compensation. According to Al-Nsour (2012) financial incentives mean the amount of money paid to employees, either in direct form or in the form of monthly payments including all additional income for employees. Incentives given to employees are expected to be a motivation for employees to increase employee morale so as to create job satisfaction, then this will also indirectly affect the performance of employees which will also increase.

Based on research conducted by Apsari and Riana (2017) found that financial incentives have a positive influence on job satisfaction. The results of this study are in accordance with the results of research conducted by Juliana et al. (2020) finding that incentives affect job satisfaction.

3. The Influence of Leadership on Employee Performance

Leadership is considered to be one of the important factors causing employee performance improvement. According to Robbins (2017) leadership is the ability to influence a group towards achieving a set vision or goal. According to Handoko (2011: 293), a leader is a person who applies principles and techniques that ensure motivation, discipline and productivity when working with others in order to achieve company goals. The formation of good leadership will produce a good influence on all employees so that it will produce maximum work results for employees for the company in completing all their duties and responsibilities. And vice versa if leadership is not formed properly it will produce an unfavorable influence on all employees for the company. This has an impact on the attitude and mentality of employees. This can be shown by the lack of enthusiasm and enthusiasm of employees at work. Then such a situation will cause an imbalance in the continuity of the work of a company or organization.

Based on research conducted by Arianto (2018) found that leadership has a positive and significant influence on employee performance. The results of this study are in accordance with the results of research conducted by Hindriari (2018) which found that leadership has a significant effect on employee performance.

4) The Effect of Financial Incentives on Employee Performance

Incentives are considered as one of the most important factors that encourage workers to work hard and work more efficiently in supporting their performance. One of the ways the company takes in order to optimize the performance of its employees is to implement a policy of providing incentives, so that within employees there is a greater enthusiasm to improve work performance so that productivity and performance increase. The role of incentives in the organization aims for employees to work better so that the provision of incentives is expected to be able to make employees stay in an organization. According to Danang (2014), the incentive itself is the provision of wages above the salary that is adjusted based on the work of the employee, so that it can motivate the employee to work harder.

The provision of incentives within a company plays an important role because it is believed to be able to overcome various problems in the workplace such as low performance due to the enthusiasm and passion of employees who are still not fully good, this can be due to the lack of work motivation and the absence of additional income for employees other than salary. For companies, the provision of incentives is expected to improve employee performance. In addition to being useful for motivating employees, incentives must also be given to employees who have good performance, this is an award for good employee performance that increases income or good performance, because it does not rule out the possibility of employees improving their performance. Incentives given to employees are expected to be able to motivate employees, so this will indirectly affect employee performance which will also increase. High employee performance is needed for employees in the context of completing their duties and responsibilities at work.

Based on research conducted by Sitompul and Saragih (2020), financial incentives simultaneously and partially have a significant and significant effect on employee performance. The results of this study are in accordance with the results of research conducted by Oktaria and Alexandro (2020), finding that incentives affect employee performance. Syamsudin et al., (2018), found that financial incentives have a significant effect on employee performance.

5) The Effect of Job Satisfaction on Employee Performance

Job satisfaction is a positive feeling towards work resulting from an evaluation of its characteristics (Robbins, 2017: 49). According to Sinambela (2017: 303) job satisfaction is a feeling of pleasure towards his work which is produced by his own efforts and which is supported by things from outside himself, on the working conditions, work results and work itself. Job satisfaction shows the match between one's expectations that arise and the rewards provided for work. Satisfaction is also closely related to the theory of justice, psychological agreement and motivation.

Based on research conducted by Badrianto and Ekhsan (2020) job satisfaction has a positive and significant effect on employee performance. Likewise, research conducted by Indrayana (2019) has a positive effect on employee performance.

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Hypothesis

- (H1): Leadership has a positive effect on job satisfaction.
- (H2) : Financial incentives have a positive effect on job satisfaction.
- (H3): Leadership has a positive effect on employee performance.
- (H4): Financial incentives have a positive effect on employee performance.
- (H5): Job satisfaction has a positive effect on employee performance.

METHOD

This research was conducted at the company UD. Kusuma Bali Mandiri. The selection of this location took into account several things, namely: The presence of this business is very important and helps the community in obtaining electronic goods and furniture, especially in the Bali area. Located in the middle of the community so that the presence of this business really helps the community in getting jobs and or obtaining household equipment.

The objects of this research are leadership, financial incentives, job satisfaction, and employee performance. Based on the background, there are phenomena that support this research conducted at UD. Kusuma Bali Mandiri. This research began to be carried out in the second week of December 2021 until it was completed.

Inferential statistics according to Sugiyono (2017:207) is a statistical technique used to analyze sample data and the results are applied to a clear population and the sampling technique from the population is done randomly. To test the hypothesis and produce a fit model, this study uses Structural Equation Modeling (SEM) with a variance based or component based approach with Partial Least Square (PLS). If the structural model to be analyzed meets the recursive model and the latent variables have formative, reflexive or mixed indicators, then the most appropriate approach is PLS.

RESULTS AND DISCUSSION

1. Research Hypothesis Testing

Hypothesis testing was carried out by t-test on each of the direct and indirect effects with the mediation test. Related to this test, hypothesis testing can be divided into testing direct and indirect effects or testing mediating variables. In this section, the results of the direct influence test and the mediating variable test are described successively.

a. Live Effect Test

The basis used in testing the hypothesis is the value contained in the output result of inner weight. The results of hypothesis testing in this study are presented in Table 5.12.

Table 1. Hypothesis Test Results

Relationship between Variables	Original Sample(O)	T Statistics (O/STDEV)	P Values	Conclusion
Leadership (X1) -> Job Satisfaction (Y1)	0.511	4.796	0.000	H1 Accepted
Leadership (X1) -> Employee Performance (Y2)	0.216	2,942	0.003	H2 Accepted
Financial Incentive (X2) -> Job Satisfaction (Y1)	0.456	4.396	0.000	H3 Accepted
Financial Incentive (X2) -> Employee Performance (Y2)	0.451	4.024	0.000	H4 Accepted
Job Satisfaction (Y1) -> Employee Performance (Y2)	0.302	2,922	0.004	H5 Accepted

Source: 2022 data, processed

Table 1 shows that the results of hypothesis testing can be presented:

1) Testing Hypothesis 1 (H1): The Effect of Leadership on Job Satisfaction.

Hypothesis 1 (H1) states that leadership has a positive and significant effect on job satisfaction. This can be seen in the path coefficient value of 0.511 and the T-statistic value of 4.796 or more than 1.96. Thus it can be concluded that

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hypothesis 1 (H1) of leadership has a positive and significant effect on job satisfaction, which means that the better the leadership, the higher the job satisfaction.

2) Testing Hypothesis 2 (H2): The influence of leadership on job satisfaction.

Hypothesis 2 (H2) states that leadership has a positive and significant effect on employee performance. This can be seen in the path coefficient value of 0.216 and the T-statistic value of 2,942 or more than 1.96. Thus it can be concluded that hypothesis 2 (H2) leadership has a positive and significant effect on employee performance is accepted, meaning that better leadership will improve employee performance.

3) Testing Hypothesis 3 (H3): The Effect of Financial Incentives on Job Satisfaction.

Hypothesis 3 (H3) states that financial incentives have a positive and significant effect on job satisfaction. This can be seen in the path coefficient value of 0.456 and the T-statistic value of 4.396 or more than 1.96. Thus, it can be concluded that hypothesis 3 (H3) of financial incentives has a positive and significant effect on job satisfaction, which means that the higher the financial incentives, the higher the job satisfaction.

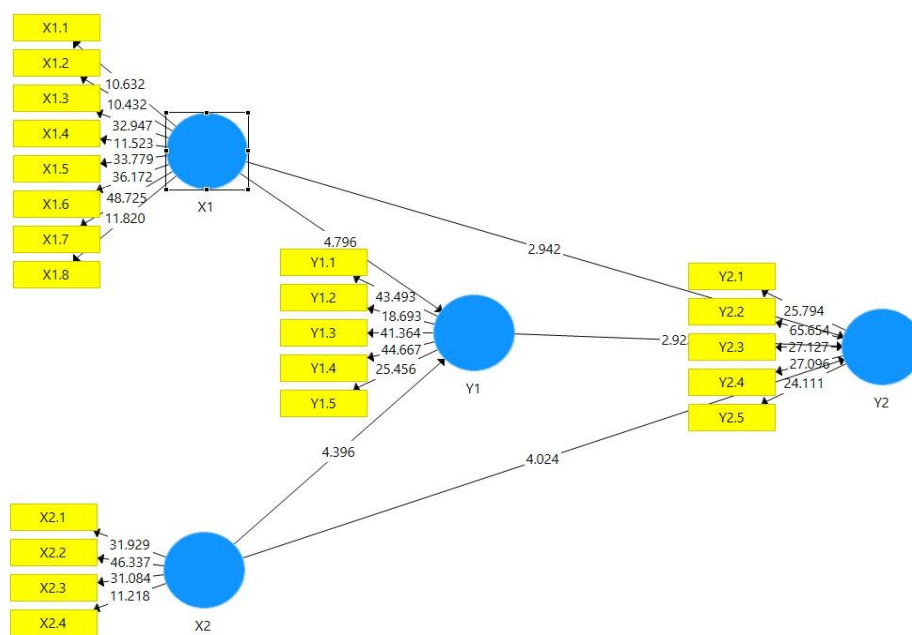
4) Testing Hypothesis 4 (H4): The Effect of Financial Incentives on Employee Performance.

Hypothesis 4 (H4) states that financial incentives have a positive and significant effect on employee performance. This can be seen in the path coefficient value of 0.451 and the T-statistic value of 4.024 or more than 1.96. Thus, it can be concluded that hypothesis 4 (H4) of financial incentives has a positive and significant effect on employee performance, which means that the higher the financial incentives, the higher the employee's performance.

5) Testing Hypothesis 5 (H5): The Effect of Job Satisfaction on Employee Performance.

Hypothesis 5 (H5) states that job satisfaction has a positive and significant effect on employee performance. This can be seen in the path coefficient value of 0.302 and the T-statistic value of 2,922 or more than 1.96. Thus it can be concluded that hypothesis 5 (H5) job satisfaction has a positive and significant effect on employee performance is accepted, meaning that the higher job satisfaction it will be able to improve employee performance.

To clarify the exposure of the results of the analysis, a model of the results of the analysis can be presented in Figure 1



Source: 2022 data, processed

Image

Result of Inner Weight

b. Mediation Variable Check

This examination will examine the mediating role of the knowledge transfer variable on the indirect influence of organizational and leadership dimensions on organizational performance. The examination of indirect effects in this study can be presented the results of the analysis in Table 2.

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Table 2. Recapitulation of Mediation Test Results

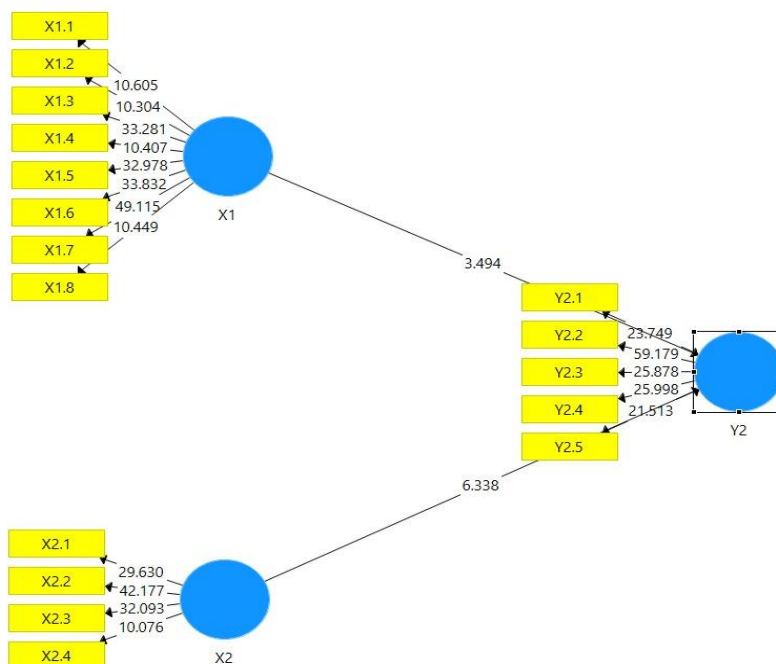
No	Variable Mediation	Effect				Information
		(a)	(b)	(c)	(d)	
1	Leadership -> Performance	0.000 (Sig.)	0.003 (Sig.)	0.004 (Sig.)	0.007 (Sig.)	Partial Mediation
2	Financial Incentive -> Performance	0.000 (Sig.)	0.000 (Sig.)	0.004 (Sig.)	0.024 (Sig.)	Partial Mediation

Source: 2022 data, processed.

Information that can be obtained in Table 2 shows the results of mediation testing, including:

- 1) Job satisfaction is able to mediate the indirect effect of leadership on performance. This shows that from the mediation test carried out, it appears that the effects of A, B, C, and D have significant values. The results of this test indicate that leadership can affect employee performance through job satisfaction can be proven empirically. Other information that can be conveyed is the mediating effect of the job satisfaction variable on the indirect influence of leadership on employee performance, which is partial mediation. Based on this it can be concluded that the better the leadership in the company with good job satisfaction as well, can improve employee performance.
- 2) Job satisfaction is able to mediate the indirect effect of financial incentives on performance. This shows that from the mediation test carried out, it appears that the effects of A, B, C, and D have significant values. The results of this test indicate that financial incentives can affect employee performance through job satisfaction can be proven empirically. Other information that can be conveyed is the mediating effect of the job satisfaction variable on the indirect effect of financial incentives on employee performance, which is partial mediation. Based on this, it can be concluded that the better the financial incentives in companies with good job satisfaction, it can improve employee performance.

Table 2 shows that the results of the mediation effect test are presented in the image of the mediation effect test results presented in Figure 2.



Source: 2022 data, processed.

Figure 2 Non-Mediation Model

In order to know the overall effect for each relationship between the variables studied, it can be recapitulated the direct effect, indirect effect and total effect which are presented in Table 3.

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Table 3. Calculation of Direct, Indirect, and Total Effects

No	Variable Relationship	Live Effect	Indirect Effect	Total Effect
1.	Leadership -> Job Satisfaction	0.511	-	0.511
2.	Leadership -> Employee Performance	0.216	0.154	0.370
3.	Financial Incentive -> Job Satisfaction	0.456	-	0.456
4.	Financial Incentive -> Employee Performance	0.451	0.138	0.589
5.	Job Satisfaction -> Employee Performance	0.302	-	0.302

Source: 2022 data, processed.

Information obtained from Table 3 shows that the financial incentive variable on employee performance has the greatest effect, which is 0.589 compared to the leadership variable on performance which only has a total effect of 0.370. These results provide an indication that performance is determined by financial incentives within the company. Financial incentives provided by the company can directly and indirectly improve employee performance. Another finding obtained by financial incentives in the company will be able to improve employee performance if it is accompanied by good job satisfaction. According to the results of the study of each effect, it can be said that financial incentives increase job satisfaction and will improve employee performance.

CONCLUSION

Based on the results of data analysis and discussion, conclusions can be drawn regarding the influence of leadership and financial incentives on job satisfaction and employee performance at UD. Kusuma Bali Mandiri as follows:

- 1) Leadership has a positive and significant effect on job satisfaction on UD. Kusuma Bali Mandiri. This means that the better the leadership, the higher the job satisfaction of employees.
- 2) Financial incentives have a positive and significant effect on job satisfaction at UD. Kusuma Bali Mandiri. This means that the better the financial incentives provided, the higher the job satisfaction of employees.
- 3) Leadership has a positive and significant effect on employee performance at UD. Kusuma Bali Mandiri. This means that the better the leadership, the better the performance of employees.
- 4) Financial incentives have a positive and significant effect on employee performance on UD. Kusuma Bali Mandiri. This means that the better the financial incentives, the better the performance of employees.
- 5) Job satisfaction has a positive and significant effect on employee performance on UD. Kusuma Bali Mandiri. This means that the better the employee's job satisfaction, the better the employee's performance.

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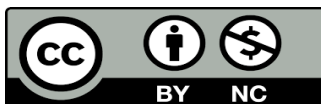
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The Influence of Service Quality, Servicescape, and Relationship Marketing on Student Loyalty with Student Satisfaction as Mediation on Mediterranean Bali Campus



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ABSTRACT: This study aims to identify the effect of service quality, servicescape and relationship marketing with satisfaction as a mediation at the Mediterranean Bali Campus. The number of samples used in this study were 99 students as respondents who were determined using the purposive sampling method. The method of data collection in this study is to use the interview method, namely data collection techniques carried out by giving oral questions and questionnaire methods, namely data collection techniques carried out by giving a set of written questions to respondents given a value or score using a Likert scale. The data analysis technique was carried out using a structural equation model (Structural Equation Modeling-SEM) based on Partial Least Square (PLS). The results of this study indicate that 1) service quality, servicescape, and relationship marketing have a positive and significant effect on student satisfaction, 2) student satisfaction has a positive and significant effect on student loyalty, 3) service quality has a positive and significant effect on student loyalty,

KEYWORDS: Service quality; servicescape; relationship marketing; student satisfaction; student loyalty

INTRODUCTION

Marketing is one of the processes by which business actors introduce their products/services to the wider community. This is very important to do so that other people can recognize the products/services that a company has. The essence of marketing is identifying and meeting consumer needs and wants (Kotler, 2016). This is the task of marketing management, where marketing management must have a strategy in identifying the needs and desires of consumers in order to package a product/service that will be truly attractive to potential consumers. However, this packaging must really be balanced with the quality of the product/service according to the needs of consumers. Thus consumers will feel the need to buy the product. Especially during the current pandemic, consumers will be more critical and wiser in making decisions that affect service competition in a company. Therefore it is very important if the company thinks to provide quality products / services and good service in order to meet customer satisfaction later.

Currently, not only retail companies are competing in providing good service, but companies engaged in services such as education are also taking part in this competition. The current pandemic condition forces all employees to work even harder so that the company's targets can be achieved and company operations can run with the profits earned. This is where the important role of marketing management is where employees in the department must be able to identify consumer needs and determine the steps that must be taken in marketing their products/services. However, in the marketing process there are things that are sometimes difficult to do, namely increasing the number of new customers who really don't know the brand of the product/service being marketed.

During the current Covid-19 pandemic, the company not only finds it difficult to maintain the health of each of its employees, but the company also finds it very difficult to maintain normal operational processes because the impact of the Covid-19 pandemic not only has an impact on health but also has an impact on decreasing the number of employees. customers that affect the company's turnover. Companies must be more creative and innovative in facing competition in difficult times like this. Seeing this condition, companies are required to respond to changes that occur and must have the right strategy in meeting sales targets (Mamesah, 2020). As for one of the positive steps that can be taken or taken by the company is to retain the customers it has.

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The customers referred to here are students themselves, because the subjects of this research are students from the Mediterranean Bali Campus. It can be said that student loyalty is the key to the success of any educational institution. This will not only have an impact in the short term but will have an impact on a sustainable competitive advantage. According to Thomas (2011: 183), student loyalty is one of the main goals of higher education institutions. This is because customer loyalty has strategic value for the company. Because students who are loyal to their alma mater will generally spread positive word of mouth (Word of Mouth) about their alma mater, and refer their alma mater to other people who want to study in college (Thomas, 2011: 183). It is also stated,

In the 2020 academic year the number of students at the Mediterranean Bali Campus has decreased significantly. This year is the first year in which the COVID-19 pandemic situation is in the public spotlight. Of course there is a decrease in the number of students in this situation, this is because the Mediterranean Bali Campus is one of the Job Training Institutes (LPK) that prepares its graduates to be ready to work in the Tourism Industry. Meanwhile, tourism in 2020 also experienced a significant decline. This is where the task of marketing management is where marketing management must be able to study the current situation and make strategies that are in accordance with the current situation in order to be able to achieve company targets. Finally in the 2021 school year, the number of students on the Mediterranean Bali Campus began to increase although this increase was not experienced by all of the Mediterranean Bali branch campuses. The Mediterranean Bali Campus has also never laid off employees. This organization persists with a complete number of employees. This is what makes researchers interested in conducting research in which researchers want to know the reasons why students choose the Mediterranean Bali Campus as their choice of place to study. From here, researchers will understand important factors that can be used as strategies that can be implemented in maintaining or increasing the number of students even in the Covid-19 era. Researchers have explored information and analyzed the reasons why students choose the Mediterranean Bali Campus as their place of study and also their feelings when studying at the Mediterranean Bali Campus. From the analysis that has been done, it can be seen that the factors that influence students to choose the Mediterranean Bali Campus are satisfaction and loyalty to their alma mater because they get excellent learning and service. In addition, the researcher also conducted an analysis on several competitor campuses by visiting several competitor campuses. However, the way of analyzing this is different from analyzing the Mediterranean Bali Campus. The analysis carried out on competitor campuses is by looking at the strategies carried out by competing campuses when dealing with prospective students and their students.

Therefore, the researchers conducted a more in-depth study on the effect of service quality, servicescape, and relationship marketing on student loyalty with student satisfaction as a mediation at the Mediterranean Bali Campus. This is very important to study because it is one of the marketing management strategies that every company can use to maintain the company's survival. Carvalho and De Oliveira Mota (2010) believe that relationships with students after graduation and the formation of student loyalty are useful for the financial sustainability of colleges. Loyal students are willing to recommend a college where they study before and after graduation (Hennig-Thurau et al, 2001). According to Mohamad and Awang (2009), loyalty in the university environment consists of the dimensions of attitude and behavior. Attitude loyalty is in the form of students' willingness to give word of mouth and positive recommendations to family, friends and relations wherever they are. While behavioral loyalty is associated with the willingness of students to complete their studies at the college where they study and the intention of students to carry out further studies at the same university.

LITERATURE REVIEW

Marketing Management

Marketing management is one of the vital or important divisions in a company, because it regulates marketing strategies that affect the achievement of company turnover. Marketing management is a science that studies the procedures for selecting and obtaining target markets, retaining, and developing customers by creating, delivering, and communicating superior value to customers. Marketing people market ten types of entities, goods, services, events, experiences, people, places, property (ownership rights), organizations, information and ideas (Kotler and Keller, 2008).

Loyalty

The understanding of student loyalty according to researchers is a satisfaction or satisfaction experienced by students so that students love their alma mater or campus and do not hesitate to inform others about the campus where the student is studying. Thomas (2011: 183) said that students who are loyal to their alma mater will generally spread positive word of mouth (Word of Mouth) about their alma mater, and refer their alma mater to other people who want to study in college. According to Hill (1996:297), loyalty is a positive level of commitment by the customer to the supplier. Student loyalty is more directed to the

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behavior of students' positive commitment to the college (campus) which is also shown by loyalty and participation in all educational processes. Loyalty is influenced by customer satisfaction, obstacles and complaints. According to Mohamad and Awang (2009), loyalty in the university environment consists of the following dimensions:

- a) **Attitude**
Attitude loyalty is in the form of students' willingness to give word of mouth and positive recommendations to family, friends and relations wherever they are
- b) **Behavior**
Behavioral loyalty is associated with the willingness of students to complete their studies at the college where they study and the intention of students to carry out further studies at the same university.

Satisfaction

Customer satisfaction is a condition in which feelings of pleasure or disappointment that arise compare the results with the expected product or service (Ozturk, 2015; Gia Bao, 2017; Susanti, 2019). Customer satisfaction is a post-purchase evaluation that results in at least similar results to or exceeding customer expectations. On the other hand, dissatisfaction occurs when the results obtained fail to meet customer expectations. Customer satisfaction can be achieved once the company can provide quality goods and services (Sari, 2017; Setyawan, 2017). In this study, the customers in question are students from the Mediterranean Bali Campus. Student satisfaction is a positive attitude of students towards the services of educational institutions because of the compatibility between the expectations of the service compared to the reality they receive (Sopiatin, 2010:33). The indicators that affect customer satisfaction are described by Irawan (2008) in (Maryadi, 2018; Nafsiyah 2020, Renata, 2020):(1) Overall service satisfaction; (2) recommending to other parties, (3) will use the service again, and (4) the fulfillment of consumer expectations after buying a product or using a service.

Service Quality

Higher education institutions are often conceptualized as part of the service industry. Therefore, universities pay more attention to meeting the expectations and needs of students as customers (Deshields et al. 2005). Athiyaman (1997) and DeShield et al. (2005) have examined student satisfaction in the context of customer satisfaction and service quality. Athiyaman (1997) found that service characteristics are emphasis on teaching students well, staff willingness to consult students, library services, computing facilities, recreational facilities, class size, level and difficulty of subject content, student workload.

DeShields et al. (2005) stated that dissatisfied students will take fewer courses or leave lectures completely. DeShields et al. (2005) believe that given the intense competition in the college market, universities should start assessing and adopting a marketing orientation strategy that meets market needs. They benefit from understanding customer needs, modifying and improving services in order to successfully deliver high quality services. In a competitive market, a thorough understanding of the target market including students and stakeholders is required.

Servicescape

Servicescape According to Hightower & Shariat (2009) is everything that is physically present around the consumer during a service transaction meeting. Therefore, the company can form the identity that it wants to offer to consumers by creating a servicescape that is comfortable for customers. In the world of education, the identity recognition process through servicescape will be felt when prospective new students first come to campus and then they will feel sustainable according to the number of student attendance to the campus. According to Tjiptono (2015), servicescape is the style and form of the physical environment consisting of exterior elements such as information boards, parking lots, natural scenery and interior attributes such as design, layout, equipment, and decorations found by the customer at the place where the service is delivered. In this case, students will feel how comfortable it will be when they feel and use the facilities on their campus. Lovelock, Wirtz, and Mussry (2011:12-19) in Suhendra and Azis there are three dimensions of servicescape, namely:

- a. *Ambient Condition*
The physical qualities of the circumstances surrounding the individual such as light, air temperature, air quality, noise, music and cleanliness are environmental characteristics related to the five senses.
- b. *Spatial Layout and Functionality*
How to arrange the location, area, equipment and furniture as well as the convenience to be obtained and used by consumers such as location, seating layout and design to facilitate consumer enjoyment
- c. *Signs, symbols, and Artifacts*
Signs or decorations used to communicate the image to be conveyed to consumers such as company logos, signs or signs and decorations used, to enhance a certain image or mood, which can make it easier for consumers to achieve their goals.

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Relationship Marketing

Sari (2017) said that relationship marketing is one way how companies establish good relationships with their customers in order to make repurchases. According to Wibowo S. (2006), relationship marketing is attracting, maintaining and improving relationships with customers. Relationship marketing is a long-term approach, which is different from the transactional marketing approach which is more short-term oriented. The purpose of transactional marketing is to get customers only, while the purpose of relationship marketing is to get and retain customers which by fostering good relationships with students as customers will determine the future value of the company or campus concerned. This will also strengthen the loyalty of students who will not hesitate to convey positive things about their campus. Indicators of relationship marketing according to Ndubisi (2007) in (Hadyan, 2015; Purwanto, 2015; Mshallam, 2016; Putri, 2017; Ubaidillah, 2017) are as follows:

- a. Communication
Communication is a process that requires people to regulate their environment by building relationships with each other, through the exchange of information, to strengthen the attitudes and behavior of others, and try to change attitudes and behavior.
- b. Commitment
Commitment is a strong desire or desire to maintain and continue relationships/relationships that are considered important and of long-term value under any conditions.
- c. Trust
Trust is a willingness to rely on the ability, integrity and motivation of others to act in order to satisfy one's needs and interests as mutually agreed.
- d. Conflict handling
Conflict handling as the ability to avoid potential conflicts, provide solutions before problems occur, and discuss solutions openly when problems arise.

RESEARCH HYPOTHESES

Service quality is often defined as an effort to fulfill customer desires and the provision of service delivery in order to meet customer expectations and satisfaction. According to Kotler (in Tjiptono and Chandra, 2011: 180), service quality must start from customer needs and end with customer satisfaction and positive perceptions of service quality. The better the quality of services provided to students, the more positive the effect on student satisfaction. This is in accordance with the research conducted by Nenden et al. (2019), Novianto (2018), Dudung ; Ali (2015), and Devi; Andy (2015) who said that service quality has a positive effect on satisfaction.

H1: Service quality has a positive and significant effect on student satisfaction at the Mediterranean Bali Campus.

In a service company, creating a memorable experience for consumers who come is a challenge, because the nature of most service products is abstract and intangible, making every aspect around the core of the company a consumer consideration. This is in accordance with research conducted by Juliana; Themmy (2020), Dadan (2016), Zaki (2017), Erdina (2018), Ekky (2020), and Meri (2021) stated that servicescape had a positive effect on student satisfaction.

H2: Servicescape has a positive and significant effect on student satisfaction at the Mediterranean Bali Campus.

A good relationship marketing business can help companies understand their wants and needs so that they can help companies understand their wants and needs so that companies can satisfy and build loyalty levels from customers so that they are always loyal to the company in the future. This is in accordance with Lollen's (2015) and Ubaidillah (2017) research which states that relationship marketing has a significant effect on customer satisfaction.

H3: Relationship Marketing has a positive and significant effect on student satisfaction at the Mediterranean Bali Campus.

Customer satisfaction is an important aspect in order to stay in business and win the competition. According to Engel (1997) quoted by Tjiptono (2002: 24) reveals that satisfaction is a post-purchase evaluation where the chosen alternative at least gives the same result (outcome) as or exceeds consumer expectations, while dissatisfaction arises if the results obtained do not meet consumer expectations. . This is in accordance with Willyanto's research; Ahmad ; Perwito (2021), Yashinta (2016), and Ronald (2010) which state that satisfaction has a significant effect on customer loyalty.

H4: Satisfaction has a positive and significant effect on student loyalty at the Mediterranean Bali Campus.

Service quality will have a significant effect on student loyalty, because by getting quality products/services students who as customers will feel satisfied and a growing sense of loyalty to themselves will grow. This is in accordance with research

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conducted by Erick (2020), Sri (2015), Rhoma (2020), and Untung (2016) which said that service quality had a positive effect on loyalty. However, according to Wijaya's research; Syahnur ; Landra (2016) states that the quality of academic services has no significant effect on word to mouth.

H5: Product Quality has a positive and significant effect on student loyalty at the Mediterranean Bali Campus.

Servicescape is the style and form of the physical environment consisting of exterior elements such as information boards, parking lots, natural views and interior attributes such as design, layout, equipment, and decoration found by customers at the place where the service is delivered (Tjiptono, 2010). 2015). Servicescape will certainly affect the sense of comfort in students and will be able to create a sense of loyalty in students. This is in accordance with research conducted by Juliana (2020), Maya Setiawardani (2021), Marsha (2016), Angie (2019), Ryalsyah (2020), Syafrizal (2017), Shifera (2016), and Halim (2019) which said that servicescape has a positive effect on loyalty.

H6: Servicescape has a positive and significant effect on student loyalty at the Mediterranean Bali Campus.

Relationship marketing is a process of creating, maintaining, and enhancing strong and high-value relationships with customers and other interested parties (Sari, 2017; Anggrainin, 2018). Loyalty is an individual's loyal attitude towards a product/service. The better the relationship forged by the company to the customer will certainly increase the customer's loyal attitude towards the company. This is in accordance with research conducted by Purwanto (2015), Octafilia (2018), Anggraini (2018), Herdian (2018), Mei Ying Wu (2015) which says that relationship marketing has a positive effect on loyalty.

H7: Relationship marketing has a positive and significant effect on student loyalty at the Mediterranean Bali Campus.

When there are potential customers who have high expectations for a product in a company because hearing from the advertisements made by the company makes the prospective customer interested in buying. However, what is very important to note is that a company must really provide products/services with good quality so that the expectations of potential customers are in line with reality. Therefore, satisfaction will arise and eventually the prospective customer will become a customer. This is in accordance with research conducted by Erick (2020), Wijaya; Syahnur ; Landra (2016), Mitha (2019), Deny ; Edwin (2013), and Lamidi; Rahadhini (2013) which states that satisfaction can mediate service quality on loyalty.

H8: Service quality has a positive and significant effect on student loyalty at the Mediterranean Bali Campus through Student Satisfaction

A good company will provide an interesting experience and a sense of comfort for their customers. By building a good servicescape within the company, customers will feel satisfied. This is in accordance with research conducted by Angie (2019), Marsha ; Fellycita (2016), and Ryalsyah (2020) which state that satisfaction can mediate servicescape on student loyalty.

H9: Servicescape has a positive and significant effect on student loyalty at the Mediterranean Bali Campus through Student Satisfaction

The existence of a good relationship will foster a sense of satisfaction and a good impression for customers and increase customer loyalty itself. The better the relationship established by the company to the customer, of course, it will increase the customer's loyal attitude towards the company based on customer satisfaction. This is in accordance with Zaidatul's research (2017) which states that satisfaction can mediate the relationship between relationship marketing and loyalty.

H10: Relationship Marketing has a positive and significant effect on student loyalty at the Mediterranean Bali Campus through Student Satisfaction.

RESEARCH METHOD

The research design is considered as a procedure for collecting, analyzing data, and reporting research. This study uses a quantitative method design. The place of this research is the Mediterranean Bali Campus. The object of this research is to measure the effect of service quality, servicescape, and relationship marketing on student loyalty with student satisfaction as a mediation. The population is a generalization area consisting of objects/subjects that have certain quantities and characteristics determined by researchers to be studied and then drawn conclusions (Sugiyono, 2017). The population in this study is the number of students who love their alma mater, for example: Students who participate recommend the Mediterranean Bali Campus to other parties (friends/family/others) and students who are diligent in participating in lecture activities. Please note that the Mediterranean Bali Campus has programs called MGM and Medi CC. The definition of this program is that students invite others to participate in studying at the Mediterranean Bali Campus. Therefore, researchers will be able to find out which students do this using the database on the Mediterranean Bali Campus. The sample is part of the number and characteristics possessed by the population. The sample was carried out because the researcher had limitations in conducting research both in terms of time, energy, funds

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and a very large population. The appropriate sample size in the study is between 30–500 (Sugiyono, 2017). Sampling in this study used the purposive sampling method, which is a sampling technique with certain considerations in selecting population members who are considered to be able to provide the information needed in accordance with certain criteria desired by the researcher (Sugiyono, 2017). Certain considerations for taking samples of researchers are students who participate in recommending the Campus to other parties as many as 99 people. All students sampled are students for the 2019-2022 academic year. Certain considerations for taking samples of researchers are students who participate in recommending the Campus to other parties as many as 99 people. All students sampled are students for the 2019-2022 academic year. Certain considerations for taking samples of researchers are students who participate in recommending the Campus to other parties as many as 99 people. All students sampled are students for the 2019-2022 academic year.

RESULTS AND DISCUSSION

The first step is to do evaluation of the measurement model to test the validity and reliability of the indicators measuring the constructs or latent variables. In this study, the five latent variables, namely service quality (X1), servicescape (X2), relationship marketing (X3), satisfaction (Y1), and loyalty (Y2) are measurement models with reflective indicators, so that the evaluation of the measurement model is carried out by checking the convergent and discriminant validity of indicators and composite reliability for indicator blocks.

Convergent validity aims to measure the validity of indicators as constructs that can be seen in the outer loading (SmartPLS output). The indicator is considered valid if it has an outer loading value above 0.5 and or a T-statistic value above 1.96. Besides that, the outer loading value can determine the contribution of each indicator with the highest value indicating that the indicator is the strongest measure or in other words the most important in the latent variable. As for the results of the outer model inspection, it can be seen that the outer loading of each indicator on a variable, as presented in Table 1 below.

Variable	Indicator	Outer Loading	T-Statistic	Note:
Service Quality (X1)	Emphasis on teaching students well	0.839	11,468	Valid
	Willingness of staff to consult students	0.534	2,924	Valid
	Library service	0.819	8,481	Valid
	Computing facilities	0.815	16,032	Valid
	Recreational facilities	0.853	9,925	Valid
	Class size	0.783	4,367	Valid
	Subject content difficulty level	0.768	6,393	Valid
Servicescape (X2)	Student workload	0.861	12.856	Valid
	Ambient conditions	0.870	23,073	Valid
	Spatial layout and functionality	0.796	7,197	Valid
Relationship Marketing (X3)	Signs, symbols, and artifacts	0.802	9,684	Valid
	Communication	0.820	9.547	Valid
	Commitment	0.810	8,475	Valid
Satisfaction (Y1)	Trust	0.632	3,557	Valid
	Conflict Handling	0.779	12,438	Valid
	Overall service satisfaction	0.862	19,439	Valid
	Recommend to others	0.787	9,637	Valid
Loyalty (Y2)	Will use service again	0.854	19.035	Valid
	Fulfillment of consumer expectations after buying a product or using a service	0.698	4,944	Valid
Loyalty (Y2)	Attitude	0.886	15,367	Valid
	Behavior	0.919	39,077	Valid

Source: processed data, 2022

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Table 2 shows the AVE value is greater than 0.50, and the four latent variables studied have a greater square root of average variance extracted (VAVE) value with correlation coefficients between other variables. Thus, the results obtained indicate that it has good discriminant validity.

Table 2. Discriminant Validity

Variable	AVE	AVE	Correlation				
			(Y1)	X1	Y2	(X3)	(X2)
Student Satisfaction (Y1)	0.644	0.803	0.803				
Service Quality (X1)	0.625	0.790	0.834	0.790			
Student Loyalty (Y2)	0.814	0.900	0.782	0.804	0.900		
Relationship Marketing (X3)	0.584	0.764	0.863	0.746	0.700	0.764	
Servicescape (X2)	0.678	0.800	0.843	0.833	0.730	0.761	0.800

Source: processed data, 2022

Composite Reliability, validity and reliability criteria can also be seen from the reliability value of a variable and the Average Variance Extracted (AVE) value of each variable. The variable is said to have high reliability if the composite reliability value is above 0.70 and the AVE is above 0.50. In Table 3, the Composite Reliability value will be presented.

Table 3. Composite Reliability

Variable	Composite Reliability	Note.
Service Quality (X1)	0.929	Reliable
Servicescape (X2)	0.863	Reliable
Relationship Marketing (X3)	0.847	Reliable
Satisfaction (Y1)	0.878	Reliable
Loyalty (Y2)	0.863	Reliable

Source: processed data. 2022

The R-square value is used to measure the coefficient of determination on the construct. The r-square values were 0.67 (strong), 0.33 (moderate), and 0.19 (weak). Changes in the value of r-square can be done to assess the effect of certain independent variables on certain dependent variables whether they have a substantive effect. In Table 4 it can be seen that the R Square value of the satisfaction variable is 0.846. This value can explain that 38.7% of changes in satisfaction variables are influenced by exogenous variables, while 62.3% of changes are influenced by variables outside the model. The loyalty variable has an influence of 78.1% and the remaining 28.9% is influenced by variables outside the model. The structural model is evaluated by taking into account the predictive relevance model which measures how well the observed values are generated by the model. based on the coefficient of determination of all dependent variables. Quantity has a value with a range of $0 < 1$, the closer the value to 1 means the better. In this structural model, there are two endogenous (dependent) variables, namely satisfaction (Y1) and loyalty (Y2), so that two coefficients of determination can be determined which are used as the basis for calculating the predictive relevance of the model according to the table 4 below. $Q^2 Q^2 Q^2 Q^2 R^2 Q^2$

Table 4. Inner Model Evaluation Results with R-square

Variable	R Square	R Square Adjusted
Satisfaction (Y1)	0.846	0.841
Loyalty (Y2)	0.688	0.675

Calculation:

$$Q^2 = 1 - [(1-R12) (1-R22)]$$

$$Q^2 = 1 - [(1-0.8412) (1-0.6752)]$$

$$Q^2 = 0.79$$

Source: processed data, 2022

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After testing the outer model and inner model, the next step is to test the hypothesis to answer what has been proposed. Hypothesis testing will be divided into two stages, namely direct testing and mediation hypothesis testing. The direct test results can be seen in table 5.

Table 5. Direct Effect Hypothesis Test Results

Relationship Between Variables	Original Sample (O)	T-Statistics	P-Value	Information
Service Quality (X1) -> Student Satisfaction (Y1)	0.246	3	0.003	H1 accepted
Servicescape (X2) -> Student Satisfaction (Y1)	0.276	3	0.006	H2 accepted
Relationship Marketing (X3) -> Student Satisfaction (Y1)	0.456	6	0.000	H3 accepted
Student Satisfaction (Y1) -> Student Loyalty (Y2)	0.312	2	0.046	H4 accepted
Service Quality (X1) -> Student Loyalty (Y2)	0.485	3	0.001	H5 accepted
Servicescape (X2) -> Student Loyalty (Y2)	0.017	0.138	0.891	H6 rejected
Relationship Marketing (X3) -> Student Loyalty (Y2)	0.060	0	0.622	H7 rejected

Source: processed data, 2022

- 1. The Effect of Service Quality on Student Satisfaction**
The results of this test have a coefficient value of 0.246 with a t-statistics value of 3 and a p-value of 0.003 so that hypothesis 1 is declared accepted. This shows that service quality has a positive and significant effect on student satisfaction. The better the quality of services at the Mediterranean Bali Campus, the higher student satisfaction. service. The results of this study are in accordance with the research of Nenden et al (2019), Novianto (2018), Dudung; Ali (2015), and Devi; Andy (2015).
- 2. The Influence of Servicescape on Student Satisfaction**
The results of this test have a coefficient value of 0.276 with a t-statistic value of 3 and a p-value of 0.006 so that hypothesis 2 is declared accepted. This shows that servicescape has a positive and significant effect on student satisfaction. The better the servicescape at the Mediterranean Bali Campus, the better student satisfaction. The results of this study are in accordance with Ekky (2020), Aprilia (2016), Arsen (2019), Zaki (2017), Tengku (2018).
- 3. The Effect of Relationship Marketing on Student Satisfaction**
The results of this test have a coefficient value of 0.456 with a t-statistics value of 6 and a p-value of 0.000 so that hypothesis 3 is declared accepted. This shows that relationship marketing has a positive and significant effect on student satisfaction. The better relationship marketing, it can increase student satisfaction. The results of this study are in accordance with Snow (2022), Ramadhan (2018) and Tiasih (2014).
- 4. The Effect of Student Satisfaction on Student Loyalty**
The results of this test have a coefficient value of 0.312 with a t-statistics value of 2 and a p-value of 0.046 so that hypothesis 4 is declared accepted. This shows that relationship marketing has a positive and significant effect on student loyalty. The better student satisfaction, it can increase student loyalty. The results of this study are in line with previous researchers conducted by Hidayat (2015), Huang (2017), Ngo Vu Minh (2016), Wijayanto (2015), and Hulmansyah (2019).
- 5. The Influence of Service Quality on Student Loyalty**
The results of this test have a coefficient value of 0.485 with a t-statistics value of 3 and a p-value of 0.001 so that hypothesis 5 is declared accepted. This shows that service quality has a positive and significant effect on student loyalty. The better the quality of service, it can increase student loyalty. The results of this study are in accordance with Erick (2020), Sri (2015), Rhoma (2020), and Untung (2016).
- 6. The Influence of Servicescape on Student Loyalty**
The results of this test have a coefficient value of 0.017 with a t-statistics value of 0.138 and a p-value of 0.891 so that hypothesis 6 is declared rejected. This shows that servicescape has no effect on student loyalty. The better or not the servicescape does not affect student loyalty. This is in accordance with Gani's research; Hidayanti ; Damayanti (2022).
- 7. The Effect of Relationship Marketing on Student Loyalty**
The results of this test have a coefficient value of 0.060 with a t-statistics value of 0 and a p-value of 0.622 so that hypothesis 7 is declared rejected. This shows that relationship marketing has no effect on student loyalty. The better or not the relationship marketing has no effect on loyalty. This is in accordance with the research of Nisa (2015), Sari (2017), Yusriadi (2017), Miharja (2010), and Karim; Sepang ; Soepono (2020).

Table 6.

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Indirect Effect Hypothesis Test Results

Variable	Original Sample (O)	T-Statistic	P-Value	Information
Service Quality (X1) -> Satisfaction (Y1) -> Loyalty (Y2)	0.082	1,663	0.097	H8 rejected
Servicescape (X2) -> Satisfaction (Y1) -> Loyalty (Y2)	0.073	2	0.069	H9 rejected
Relationship Marketing (X3) -> Satisfaction (Y1) -> Loyalty (Y2)	0.105	2	0.102	H10 rejected

Source: processed data, 2022

8. The Influence of Service Quality on Student Loyalty through Student Satisfaction
The results of this test have a coefficient value of 0.082 with a t-statistic value of 1.663 and a p-value of 0.097 so that hypothesis 8 is declared not accepted. This shows that student satisfaction is not able to mediate the relationship between service quality and loyalty through student satisfaction.
9. The Effect of Servicescape on Student Loyalty through Student Satisfaction
The results of this test have a coefficient value of 0.073 with a t-statistic value of 2 and a p-value of 0.069 so that hypothesis 9 is declared not accepted. This shows that servicescape is not able to mediate the relationship between servicescape and loyalty through student satisfaction.
10. The Effect of Relationship Marketing on Student Loyalty through Student Satisfaction
The results of this test have a coefficient value of 0.105 with a t-statistic value of 2 and a p-value of 0.102 so that hypothesis 10 is declared not accepted. This shows that student satisfaction is not able to mediate the relationship marketing relationship to loyalty through student satisfaction.

CONCLUSION

Service quality has a positive and significant effect on student satisfaction at the Mediterranean Bali Campus, this means that service quality has succeeded in increasing student satisfaction through an emphasis on good student teaching, staff willingness to consult students, library services, computing facilities, recreational facilities, class size, level of the difficulty of the content, as well as the student's workload in influencing student satisfaction provided by the Mediterranean Bali Campus. Servicescape has a positive and significant effect on student satisfaction at the Mediterranean Bali Campus, this means that servicescape has succeeded in increasing student satisfaction through ambient conditions, spatial layout & functionality, as well as signs, symbols & functionality. artifacts in influencing student satisfaction provided by the Mediterranean Bali Campus. Relationship Marketing has a positive and significant effect on student satisfaction at the Mediterranean Bali Campus, this means that relationship marketing has succeeded in increasing student satisfaction through communication, commitment, trust, and conflict handling in influencing student satisfaction provided by the Mediterranean Bali Campus. Student satisfaction has a positive effect on student loyalty at the Mediterranean Bali Campus, this means that student satisfaction has succeeded in increasing student loyalty through overall service satisfaction, recommending to other parties, using services again, and fulfilling consumer expectations after purchasing services. Service quality has a positive and significant effect on student loyalty at the Mediterranean Bali Campus, this means that service quality has succeeded in increasing student loyalty through an emphasis on good student teaching, staff willingness to consult students, library services, computing facilities, recreational facilities, class size, the level of difficulty of the content, as well as the workload of students in influencing student loyalty given by the Mediterranean Bali Campus. Servicescape has no effect on student loyalty at the Mediterranean Bali Campus, this means that high or low servicescape does not affect student loyalty at the Mediterranean Bali Campus. Relationship marketing has no effect on student loyalty at the Mediterranean Bali Campus, This means that the high or low relationship marketing has no effect on student loyalty at the Mediterranean Bali Campus. Student satisfaction is not able to mediate the relationship between service quality and student loyalty, this means that high or low student satisfaction is not able to mediate the relationship between service quality and student loyalty at the Mediterranean Bali Campus. Student satisfaction is not able to mediate the relationship between servicescape and student loyalty at the Mediterranean Bali campus, this means that high or low student satisfaction is unable to mediate the relationship between servicescape and student loyalty at the Mediterranean Bali campus. Student satisfaction is not able to mediate the relationship marketing relationship to student loyalty at the Mediterranean Bali Campus.

Suggestions that can be given include: The Mediterranean Bali campus must be able to maintain and even improve the quality of its education in the aspects of teaching, consulting for students, libraries, computing, classroom size, curriculum

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standards, assigned assignments and entertainment facilities as well as practical facilities in order to maintain student satisfaction and increase satisfaction. and loyalty from students. The Mediterranean Bali campus must be able to improve aspects of the atmosphere of the campus area, decoration/interior, layout, and useful signs to create a sense of comfort and in the end be able to create a sense of loyalty from students. The Mediterranean Bali campus must be able to improve aspects of good communication, commitment, trust, The Mediterranean Bali campus must be able to maintain and increase student satisfaction in order to create a sense of loyalty from students from various aspects provided by the campus to students.

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The Effect of Capital Structure and Liquidity on Investment Decisions with Profitability as Intervening Variable in Manufacturing Companies Listed on Bei



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ABSTRACT: This study aims to examine the effect of capital structure and liquidity on investment decisions with profitability as an intervening variable. The method used in this sampling is purposive sampling. The sample in this study were 63 manufacturing companies listed on the Indonesia Stock Exchange for the 2018-2020 period. The data analysis technique used in this research is the path analysis technique and the Sobel test. The results showed that capital structure had a negative and significant effect on profitability and liquidity had no effect on profitability, then capital structure, liquidity and profitability had a positive and significant effect on investment decisions.

KEYWORDS: capital structure, liquidity, profitability, investment decisions.

INTRODUCTION

Investment decisions when viewed from the aspect of time period can be grouped into 2 (two) major groups, namely short-term investment or working capital and long-term investment. Short-term investment is the allocation of funds in current assets in the form of cash, marketable securities, receivables, and inventories. While long-term investment is the allocation of funds in the form of fixed assets, such as land, buildings, machinery, equipment, and other fixed assets. The investment activities carried out by the company will determine the profits to be obtained by the company in the future, the more appropriate the investment policy taken by the company is believed to be able to increase the company's profitability as an aspect of company profits.

The results of research conducted by Wijaya (2011) which examines the effect of profitability on investment decisions which states that profitability has a positive effect on investment decisions. This is in line with research conducted by Rahmad (2017). However, different things were conveyed from the research conducted by Mia and Yuniningsih (2020) which stated that profitability had no effect on investment decisions.

According to the Trade off Theory, one way to increase the company's profitability is to optimize the level of debt owned by the company. According to Brigham and Houston (2011: 183), tradeoff theory is a theory of capital structure which states that companies exchange tax benefits from the use of debt with problems caused by potential bankruptcy. The trade-off theory has the implication that managers will think in terms of trade-offs between tax savings and the cost of financial difficulties in determining capital structure. Companies with a high level of profitability will certainly try to reduce their taxes by increasing their debt ratio, so that the additional debt will reduce taxes and in fact financial managers rarely think so. The greater the proportion of debt, the greater the tax protection obtained and the greater the proportion of debt, the greater the bankruptcy costs that may arise. So,

The results of research conducted by Anh Dhong (2013) and Siringorino who examined the effect of capital structure on investment decisions stated that capital structure had a positive effect on investment decisions. Different things were conveyed from research conducted by Risa (2014) which stated that capital structure had a negative effect on investment decisions.

Another factor that influences investment decisions is liquidity. Liquidity is the ability of a company to pay its short-term debt by using its current assets (Owolabi, 2012). A company must have the ability to pay financial obligations in order to maintain the continuity of its business activities. High liquidity indicates that the company has greater current assets than current liabilities, so the company has a high opportunity to carry out investment activities.

Research conducted by Munir (2014) which examines the effect of liquidity on investment decisions with research results stating that liquidity has a positive effect on investment decisions. This is in line with research conducted by Hartono and Wahyudi (2017),

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but different things are stated from research conducted by Mia and Yuniningsih (2020) which states that liquidity has no effect on investment decisions.

In this study, in addition to the factors that influence investment decisions, there are also factors that affect the company's profitability, including capital structure and liquidity (Setyanusa and Astita, 2013). The company's goals will not be achieved if there is no optimal capital structure and liquidity as a support used to obtain maximum profitability.

The leverage ratio or also known as the debt ratio is a ratio used to measure the ratio of the funds provided by the owner to the funds borrowed from the company's creditors. Given the importance of the role of capital structure, management must have expertise in developing an optimal capital structure. The leverage ratio consists of debt to assets ratio and debt to equity ratio (Riyanto, 2014: 333).

The results of research by Margaretha and Khairunisa (2016) show that the capital structure in this case is measured using the debt to equity ratio, which has a significant negative effect on profitability (return on assets). The same thing was also stated by Novita (2015) and Pradnyanita (2019) who obtained the results that capital structure had a negative effect on profitability. This conclusion contradicts the results obtained from research by Gill, et al., (2011) found a positive and significant relationship between SDAR and ROE in service and manufacturing companies, a positive and significant relationship was also found between LDAR and ROE in manufacturing companies, while in service companies the ratio of LDAR and ROE has a positive but not significant effect.

The results of the research by Setyanusa and Astita (2013) show that liquidity has a significant positive effect on profitability, meaning that the increase in liquidity will affect the increase in profitability. The same thing was also conveyed from research conducted by Asiah (2011), Manyo (2013) and Novita (2015) stating that liquidity has a positive effect on profitability. While the results of Pradnyanita's research (2019) stated that liquidity had a negative effect on profitability. The same thing was also stated by Margaretha and Khairunisa (2016) which stated that liquidity in this case measured using the current ratio had no effect on return on assets.

Research conducted by several researchers has shown inconsistent results which may be due to other factors that also influence the relationship between capital structure and liquidity on profitability and investment decisions. This research is focused on manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2018-2020. Manufacturing companies are companies that process raw goods into semi-finished goods or finished goods so as to add value to these goods. The growth of manufacturing industry companies holds a dominant position in economic development in Indonesia because it is directly related to people's everyday purchasing power (Adnyana and Badjra, 2014). Good manufacturing company performance will increase public confidence in the company, And vice versa if the performance of manufacturing companies is less than optimal then the level of public confidence in the company will decrease. Companies that have good performance can generate profits where some of these profits can be retained for investment purposes and some can be distributed as dividends.

The reason for choosing a manufacturing company as the object of research is because manufacturing companies listed on the Indonesia Stock Exchange consist of various industrial sub-sectors so that they can reflect the reaction of the capital market as a whole. Manufacturing companies also have the largest number of companies on the Indonesia Stock Exchange. Manufacturing companies are companies that have continuous production activities, so to maintain this continuity, companies need large amounts of funds, which causes manufacturing companies to need more sources of funds for the long term, to finance the company's operations, one of which is investment by investors. and will be very interesting if it is associated with dividends as part of the profits distributed to shareholders.

The selection of the research period in 2018 - 2020 is also a matter of concern. The basis for consideration is that in 2017-2019 there was a slowdown in investment growth in the manufacturing industry sector, then in 2019 there was a global crisis caused by the COVID-19 pandemic, the phenomenon caused a decline in company activities. Thus, related to this phenomenon, the period 2018 - 2020 is used in this study because in that year the company is considered to be able to better and accurately disclose and report its social responsibility.

LITERATURE REVIEW

Effect of Capital Structure on Profitability

According to Brigham and Houston (2001: 33): Trade Off Theory assumes the company balances the benefits of funding with debt (favorable corporate tax treatment) with interest rates and bankruptcy costs. Based on this theory, companies with a high level of profitability will certainly try to reduce their taxes. The way that companies can do to reduce their income taxes is to increase their debt ratio, so that the additional debt will reduce taxes. However, companies with debt that is too high then the benefits of using

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debt will be lower than the benefits obtained. Based on this consideration, the company can reduce the cost of using debt in the hope that the profit earned by the company will increase.

Based on the overall description, it can be seen that the higher the DER indicates the higher the risk of failure that may occur in the company. Companies that have a large DER will affect the expected level of profit. The previous research conducted by Dewi et al and Kirya (2015), Chandra et al and Agusti (2016) found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability. Based on the explanation above, the hypothesis proposed in this study is as follows:

H1: Capital structure has a negative effect on profitability

Effect of Capital Structure on Investment Decisions

The capital structure is permanent financing consisting of short-term debt, preferred stock, and shareholder capital. According to Brightnam and Houston (2016), capital structure is a combination of debt and equity in the company's long-term financial structure. Capital structure is an important issue for the company because the good or bad capital structure will have a direct effect on the company's financial, which in turn will affect investment decisions in a company. The capital structure shows the proportion of the use of debt to finance their investment, so that by knowing the capital structure investors can find out the balance between risk and the rate of return on their investment.

Based on all these descriptions, if a company in meeting its funding needs prioritizes sources from within the company, it will reduce dependence on outside parties. A good capital structure will increase the company's investment. The previous research conducted by Anh Dhong (2013) and Siringorino (2015) showed that capital structure had a positive effect on investment decisions. Based on the explanation above, the hypothesis proposed in this study is as follows:

H2: Capital structure has a positive effect on investment decisions.

Effect of Liquidity on Profitability

High liquidity without the use of its value to generate profits for the company will be a burden because it can be said that the cash is idle (idle funds), the number of uncollectible receivables and the low number of short-term loans. Different results will arise if the company plans high liquidity as working capital in anticipation of payment of short-term debt or part of long-term debt that will have to be paid immediately.

Research by Asiah (2011) on the textile industry listed on the Indonesia Stock Exchange for the period 2003-2007 states that CR has a positive and significant effect on company profitability. Research by Manyo (2013) on 43 companies listed on the Nigerian Stock Exchange for the period 2000-2009 states that the CR variable has a positive and significant effect on ROA. Salehi (2012) conducted a study on 120 manufacturing companies listed on the Tehran Stock Exchange for the period 2006-2010 stating that CR has a positive and significant effect on ROA when the company's management manages it as working capital properly. Based on the explanation above, the hypothesis proposed in this study is as follows:

H3 : Liquidity has a positive effect on profitability.

The Effect of Liquidity on Investment Decisions

According to Hanafi and Halim (2014) liquidity is the company's ability to meet its short-term obligations. This understanding shows whether with the available cash the company has difficulty funding its investment or not. The company is said to have no difficulty in funding its investment if the company is able to generate cash to finance the investment. The greater the company's liquidity, its capital structure/debt will decrease, because with high liquidity the company has available funds that can be used to finance the company's needs with its own capital. In making investment decisions, the cost of own capital is taken into account rather than taking the risk.

The previous research conducted by Munir (2014) Effect of Liquidity on Investment Decisions and research conducted by Hartono and Wahyudi (2017) analysis of factors that influence investment decisions in property and real estate companies states that liquidity has a positive effect on investment decisions. Based on the explanation above, the hypothesis proposed in this study is as follows:

H4 : Liquidity has a positive effect on investment decisions.

The Effect of Profitability on Investment Decisions

According to Birmingham and Gapenski (2006) profitability is the end result of a number of company management policies and decisions, so it can be said that profitability is the company's ability to obtain net income from activities carried out in the accounting period.

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The relationship between profitability is related to decisions, including investment decisions, namely as a budget setting from profit projections. Profitability is an important consideration for investors in investment decisions. Companies that have a greater ROA are more effective and efficient in using their overall assets in generating net income. And conversely, a company with a small ROA means that the company is not effective and efficient in using its assets to generate profits. In addition, the higher the profitability of a company, the greater its ability to pay dividends. So that investors will be interested in investing in companies that produce a high level of profitability.

The previous research conducted by Wijaya and Langgeng (2011), Hartono and Wahyudi (2017) and Rahmad (2017) show that profitability has a positive effect on investment decisions. Based on the explanation above, the hypothesis proposed in this study is as follows:

H5: Profitability has a positive effect on investment decisions.

Effect of Capital Structure on Investment Decisions Through Profitability as an Intervening

According to Brightnam and Houston (2016), capital structure is a combination of debt and equity in the company's long-term financial structure. Capital structure is an important issue for the company because the good or bad capital structure will have a direct effect on the company's financial, which in turn will affect investment decisions in a company. A good capital structure will increase the company's investment. The previous research conducted by Anh Dong (2013) and Siringorino (2015) showed that capital structure had a positive effect on investment decisions.

Companies with a high level of profitability will certainly try to reduce their taxes. The way that companies can do to reduce their income taxes is to increase their debt ratio, so that the additional debt will reduce taxes. The higher the DER indicates the higher the risk of failure that may occur in the company. Companies that have a large DER will affect the expected level of profit. The previous research conducted by Dewi et al and Kirya (2015), Chandra et al and Agusti (2016) found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability.

Profitability is the result achieved by the company which is measured in percentage which is used to assess the extent to which the company is able to generate profits at a certain level and period. Based on signaling theory, that when investors will make an investment decision. Investors will see the signals given by the company. These signals can be in the form of information regarding the profitability of the company. The higher and more stable the company's profitability, the more interested investors will be to invest in the company.

Logically, the higher and more stable the company's profitability, the more positive the signal received by investors in making investment decisions. This means that investors tend to look towards large profits and an increase in company profits. This high profitability can be indicated as a positive signal and a need for investors to invest in the company. Putra and Ida (2015) state that the level of profitability describes the company's performance as seen from the company's ability to generate profits. The higher the value of the profitability ratio, the higher the company's ability to earn profits and the more prospects or guaranteed investment decisions in the company.

Previous research conducted by Anjani (2012), Safitri (2016), Rahmiati and Putri (2015), Ogilo and Billeil (2015), Ikhsandi (2015) and Wijaya and July (2011) showed that profitability had a positive effect on investment decisions. The signal given by the company with high profitability will further increase the desire of investors in making investment decisions. The higher the profitability, the higher the investment decisions that will be made.

From some of these descriptions, it can be seen that profitability is able to influence the effect of capital structure on investment decisions. Based on the explanation above, the hypothesis proposed in this study is as follows:

H6: Profitability is able to mediate the effect of capital structure on investment decisions

The Effect of Liquidity on Investment Decisions Through Profitability as an Intervening

The company is said to be liquidity if the company's paying power is large and able to fulfill all its obligations (Riyanto, 2010:26). Research by Asiah (2011), Salehi (2012) and Manyo (2013) states that liquidity has a positive effect on profitability

The greater the company's liquidity, its capital structure/debt will decrease, because with high liquidity the company has available funds that can be used to finance the company's needs with its own capital. In making investment decisions, the cost of own capital is taken into account rather than taking the risk. previous research conducted by Munir (2014) the effect of liquidity on investment decisions and research conducted by Hartono and Wahyudi (2017) states that liquidity has a positive effect on investment decisions.

From some of these descriptions, it can be seen that profitability is able to influence the influence of liquidity on investment decisions. Based on the explanation above, the hypothesis proposed in this study is as follows:

H7: Profitability is able to mediate the influence of liquidity on investment decisions

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RESEARCH METHODS

In this study using a quantitative approach in an effort to test the hypotheses that have been compiled, the research process uses a lot of numbers starting from the collection, interpretation and presentation of results (Arikunto, 2016:12). A process of finding knowledge that uses data in the form of numbers as a tool to analyze information about what you want to know (Kasiram, 2018:149).

The location of this research was carried out in companies listed on the Indonesia Stock Exchange by accessing www.idx.co.id. The population in this study are all manufacturing companies listed on the Indonesia Stock Exchange for the 2018-2020 period, which are 198 companies. The sample selection in this study was carried out using the purposive sampling method with the aim of obtaining a representative sample in accordance with the specified criteria. The sample criteria to be used are: Manufacturing companies listed on the Indonesia Stock Exchange in 2018-2020. Manufacturing companies whose financial reports and annual reports can be accessed consecutively during the 2018-2020 observation year. Manufacturing companies that have complete information about the variables needed in this study. Based on the criteria of the sample companies that have been determined, there are 63 companies that meet the criteria.

Based on the hypothesis, there are four variables determined in this study, namely: capital structure, liquidity, profitability and investment decisions. These variables became the basis for the preparation of research instruments after the sample was determined, followed by data collection. Furthermore, the data was processed using PLS analysis techniques. The results of the analysis are then interpreted and followed by concluding and giving suggestions.

RESEARCH RESULTS AND DISCUSSION

Path Analysis Results

Testing the data in this study uses path analysis techniques, where path analysis is an extension of multiple linear regression analysis to test the causal relationship between 2 or more variables. The stages of performing path analysis techniques are:

1) Calculation of path coefficients and determine structural model equations

Path coefficient calculation carried out using SPSS software 18.0 for Windows, and the results are shown in Table 5.7 below:

Table 5.7 Path Analysis Test Results (Structure 1)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.033	.018		1,798	.074
Capital Structure	-.133	.012	-.621	-10,750	.000
Liquidity	.020	.002	.070	1.218	.225

a. Dependent Variable: Profitability

Source: Primary data processed, 2022 (Appendix 7)

Based on the results of the path analysis of substructure 1 as presented in Table 5.7, the following structural equations can be made:

$$M = -0.113 X_1 + 0.020 X_2 + e_1$$

The regression coefficient value of the liquidity variable is positive with a significance of more than 0.05, which means that liquidity has a positive effect and has no significance (no effect) on Profitability (M). While the capital structure variable has a negative effect with a significant value of less than 0.05, this means that the capital structure has a negative and significant effect on the Profitability (M) variable.

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Table 5.8 Path Analysis Test Results (Structure 2)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.	
		B	Std. Error	Beta		t
1	(Constant)	1,735	.182		9.546	.000
	Capital Structure	.389	.154	.224	2.521	.013
	Liquidity	.060	.017	.246	3.511	.001
	Profitability	1,694	.716	.209	2,364	.019

a. Dependent Variable: Investment Decision

Source: Primary data processed, 2022 (Appendix 7)

Based on the results of the analysis of substructure path 2 as presented in Table 9, then the structural equation can be made as follows:

$$Y = 0.389 X_1 + 0.060 X_2 + 1.694 M + e_2$$

The regression coefficient value of the capital structure, liquidity and profitability variables is positive. This shows that the variables of capital structure, liquidity and profitability have a positive and significant relationship to Investment decision (Y).

2) Coefficient Determination (adjusted R²)

The coefficient of determination essentially measures how far the model's ability to explain the variation of the dependent variable (Ghozali, 2016). In this statistical calculation, the R² value used is adjusted R² because this is one indicator to determine the effect of adding one independent variable into a regression equation. The results of the coefficient of determination in this study can be seen in Table 5.9 as follows:

Table 5.9. Coefficient of Determination Results

Structure	Equality	R Square	Adjusted R Square
1	M = -0.113 X ₁ + 0.020 X ₂ + e ₁	0.383	0.377
2	Y = 0.389 X ₁ + 0.060 X ₂ + 1.694 M + e ₂	0.107	0.093

Source: Primary data processed, 2022 (Appendix 3)

Table 5.9 shows the structural equation 1 (path analysis 1) the magnitude of the influence of the independent variable on the dependent variable is indicated by the value of determination (Adjusted R Square) of 0.377 means that 37.7% of the variation in profitability is influenced by variations in capital structure (X₁), and liquidity (X₂), while the remaining 62.3% is explained by other factors that are not included in the model.

While in the structural equation 2 (path analysis 2) the magnitude of the influence of the independent variable on the dependent variable is indicated by the value of determination (Adjusted R Square) of 0.093 means that 9.3% variation in investment decisions is influenced by variations in capital structure (X₁), liquidity (X₂), and Profitability (M), while the remaining 90.7% is explained by other factors not included in the model.

Based on the substructure 1 and substructure 2 models, a final path diagram model can be drawn up. Before compiling the final path diagram model, first calculate the standard error values as follows:

$$e_i = \sqrt{1 - R_i^2}$$

$$e_1 = \sqrt{1 - R_1^2} = 0.785 \sqrt{1 - 0,383}$$

$$e_2 = \sqrt{1 - R_2^2} = 0.945 \sqrt{1 - 0,107}$$

Based on the calculation of the effect of error (e_i), the effect of error (e₁) is 0.785 and the effect of error (Pe₂) is 0.945. The results of the coefficient of total determination are as follows:

$$R^2_m = 1 - (e_1)^2 - (e_2)^2$$

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$$= 1 - (0.785)^2(0.945)^2$$

$$= 1 - (0.616)(0.893)$$

$$= 1 - 0.550 = 0.450$$

The total determination value of 0.450 means that 45% of the variation in investment decisions is influenced by variations in capital structure, liquidity, and Profitability, while the remaining 55% is explained by other factors not included in the model.

Based on the path diagram in Figure 2, it can be calculated the magnitude of the direct and indirect effects as well as the total effect between variables. The calculation of the effect between variables is summarized in Table 5.10 as follows.

Table 5.10 Direct and Indirect Effects and Total Effects of Research Variables

Variable Effect	Direct Influence	Indirect Profitability (Y)	Influence Through	Total Influence
X1 → M	-0.133	-		-0.133
X2 → M	0.020	-		0.020
M → Y	1,694	-		1,694
X1 → Y	0.389	(-0.133 x 1.694) = -0.225		0.164
X2 → Y	0.060	(0.020 x 1.694) = 0.030		0.063

Source: Primary data processed, 2022 (Appendix 7)

5.3 Simultaneous Test Results (F Test)

The model feasibility test (F test) basically shows whether the independent variables included in the model have a joint effect on the dependent variable (Ghozali, 2016). If the significance value of F count or P value 0.05, then the relationship between the independent variables is significantly influential on the dependent variable. The results of the simultaneous test (F test) in this study can be seen in full, summarized in Table 11 as follows:

Table 5.11

F . Test Results

Structure	Equality	F statistics	Significance F Uji test
1	$M = -0.113 X1 + 0.020 X2 + e1$	57,851	0.000
2	$Y = 0.389 X1 + 0.060 X2 + 1.694 M + e2$	7,412	0.000

Source: Primary data processed, 2022 (Appendix 3)

The results of the F test (F test) contained in Table 11 show that the calculated F value in structural equation 1 (path analysis 1) is 57.851 with a significance value of P value 0.000 less than = 0.05, this means the model used in this study is worth it. This result means that all independent variables, namely capital structure(X1), and liquidity(X2) simultaneous effect on profitability. This means that the model can be used for further analysis or in other words the model can be used to project a Profitability research model.

The results of the F test (F test) contained in Table 12 also show that the calculated F value in structural equation 2 (path analysis 2) is 7.412 with a significance value of P value 0.000 which is smaller than = 0.05, this means that the model used in this study is feasible. This result means that all independent variables, namely capital structure(X1), liquidity(X2), and Profitability (M) simultaneously influence investment decisions. This means that the model can be used for further analysis or in other words the model can be used to project investment decision research capital.

5.4 Hypothesis Test Results (t test)

The effect of capital structure variables, liquidity and government spending on profitability and the effect of capital structure variables, liquidity, government spending and Profitability of investment decisions are tested using the t test. The test criteria to explain the interpretation of the influence between each variable is if the significance value <0.05 then H0 is rejected and H1 is

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accepted. On the other hand, if the significance value is > 0.05 , then H_0 is accepted and H_1 is rejected. The exposure of the influence between variables can be explained as follows:

1) Effect of Capital Structure on Profitability

Based on the results of the analysis of the effect Capital structure on profitability obtained a significance value of 0.000 with a negative regression coefficient of -0.133. Significance value $0.000 < 0.050$ indicates that H_1 is accepted. This result means that capital structure take effect negative and significant to profitability.

2) The effect of liquidity on profitability.

Based on the results of the analysis the effect of liquidity on profitability obtained a significance value of 0.225 with a positive regression coefficient of 0.020. Significance value $0.225 > 0.05$ indicates that H_2 is rejected. This result means that liquidity has no effect on profitability.

3) Effect of capital structure on investment decisions

Based on the results of the analysis of the effect capital structure on investment decisions obtained a significance value of 0.013 with a positive regression coefficient of 0.389. Significance value $0.013 < 0.05$ indicates that H_3 is accepted. This result means that capital structure take effect positive and significant impact on investment decisions.

4) Effect of liquidity on investment decisions.

Based on the results of the analysis the influence of liquidity on investment decisions obtained a significance value of 0.001 with a positive regression coefficient value of 0.389. Significance value of $0.001 < 0.05$ indicates that H_4 is accepted. This result means that liquidity has a positive and significant effect on investment decisions.

5) The Effect of Profitability on Investment Decisions

Based on the results of the analysis of the effect Profitability on investment decision earned values significant t_{si} of 0.019 with a positive regression coefficient of 1.694. Scores significant t_{si} $0.019 < 0.05$ indicates that H_5 is accepted. This result means that Profitability take effect positive and significant impact on investment decisions.

5.5 Sobel Test Results

Sobel test is an analytical tool to test the significance of the indirect relationship between the independent variable and the dependent variable mediated by the mediator variable. The Sobel test is formulated with the following equation and can be calculated using the Microsoft Excel 2007 application. If the Z calculation value is greater than 1.96 (with a 95 percent confidence level), then the mediator variable is assessed to significantly mediate the relationship between the dependent variable and the independent variable.

Testing the indirect effect of the capital structure variable (X_1) on the investment decision variable (Y) through the Profitability variable (M), carried out with the following steps:

1) Hypothesis Formulation

H_0 : Profitability is not able to mediate the effect of the capital structure variable on investment decisions.

H_1 : Profitability is able to mediate the effect of the variable capital structure on investment decisions.

2) Testing Criteria

The test criteria used are as follows:

If the absolute value of Z count 1.96 then H_0 is accepted, meaning profitability is not a mediating variable.

If the absolute value of Z count > 1.96 then H_0 is rejected, meaning that profitability is a mediating variable.

3) Calculating Test Statistics

To test the significance of the indirect effect, the z value of the ab coefficient is calculated by the following formula:

$$S_{ab} = \sqrt{b^2 S_a^2 + a^2 S_b^2 + S_a^2 S_b^2}$$

$$S_{ab} = \sqrt{(1,694)^2(0,012^2) + (0,133)^2(0,716)^2 + (0,012^2)(0,716)^2}$$

$$S_{ab} = 0.0096$$

Information :

Sat = the magnitude of the indirect standard error

Sa = standard error coefficient a

Sb = standard error coefficient b

a = path X_1 to M

b = path M to Y

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ab = path X1 to M (a) with path M to Y (b)

To test the significance of the indirect effect, calculate the z value of the ab coefficient with the following formula:

$$Z = \frac{ab}{S_{ab}}$$

$$Z = \frac{(0,133)(1,694)}{0,0096}$$

$$Z = 2.3048$$

4) Conclusion

Therefore, Z count is 2.3048 > 1.96. This means that profitability (M) is a variable that mediates capital structure (X1) on investment decisions (Y) or in other words capital structure has an indirect effect on investment decisions.

Testing the indirect effect of the Liquidity variable (X2) on the Investment Decision variable (Y) through the Profitability variable (M), carried out with the following steps:

1) Hypothesis Formulation

Ho: Profitability is not able to mediate the effect of the Liquidity variable on investment decisions.

H1: Profitability is able to mediate the effect of the Liquidity variable on investment decisions.

2) Testing Criteria

The test criteria used are as follows:

If the absolute value of Z count 1.96 then H0 is accepted, meaning profitability is not a mediating variable.

If the absolute value of Z count > 1.96 then H0 is rejected, meaning that profitability is a mediating variable.

3) Calculating Test Statistics

To test the significance of the indirect effect, the z value of the ab coefficient is calculated by the following formula:

$$S_{ab} = \sqrt{b^2 S_a^2 + a^2 S_b^2 + S_a^2 S_b^2}$$

$$S_{ab} = \sqrt{(1,694)^2 (0,002)^2 + (0,020)^2 (0,716)^2 + (0,020)^2 (0,716)^2}$$

$$S_{ab} = 0.002$$

Information :

Sat = the magnitude of the indirect standard error

Sa = standard error coefficient a

Sb = standard error coefficient b

a = path X2 with respect to M

b = path M to Y

ab = path X2 to M (a) with path M to Y (b)

To test the significance of the indirect effect, calculate the z value of the ab coefficient with the following formula:

$$Z = \frac{ab}{S_{ab}}$$

$$Z = \frac{(0,020)(1,694)}{0,0002}$$

$$Z = 2.2915$$

4) Conclusion

Therefore, Z count is 2.2915 > 1.96. This means that profitability (M) is a variable that is able to mediate liquidity (X2) on investment decisions (Y) or in other words liquidity has an indirect effect on investment decisions through profitability.

5.6 Discussion

5.6.1 Effect of capital structure on profitability

The results of the analysis show that the capital structure has a significant negative effect on profitability. This means that if the capital structure ratio is greater, the amount of long-term debt will increase so that the interest expense will increase and operating profit will decrease because it is used to pay off the interest expense which will result in a higher net profit after tax. less will be accepted by the company.

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The results of this study support research conducted by Dewi, Cipta, and Kirya (2015), Chandra, Kamaliah, and Agusti (2016) who found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability. So the higher the company's debt, the lower the profitability with ROA proxy. This is because debt can have a negative impact on company performance because a high debt burden can reduce company profits. The company's capital structure which tends to be dominated by debt will increase the interest expense borne by the company, resulting in a decrease in company income, but the tax that must be paid by the company will be small.

5.6.2 Effect of capital structure on investment decisions

The results of the analysis show that the capital structure has a positive and significant effect on investment decisions. This means that the better the capital structure of the company, the more interest of investors to invest in manufacturing companies on the IDX, because the company in its operational activities by using debt, the company is able to increase the level of profit.

The results of this study support research conducted by Anh Dong (2013) and Siringorino (2015) show that capital structure has a positive effect on investment decisions. Capital structure is the ratio between the debt owned by the company and its total equity. The capital structure reflects the company's ability to meet all of its obligations as indicated by some part of its own capital which is used to pay debts. This ratio shows the comparison between borrowed funds or debt and capital in the company's development efforts.

5.6.3 Effect of liquidity on profitability

The results of the analysis show that liquidity has no significant positive effect on profitability. This means that the liquidity (CR) of manufacturing companies listed on the IDX is relatively stable in growth, so that CR does not affect profitability in this case ROE. The same thing can also happen because the company has assets that are not or underused to be able to generate more profit, because the existing funds are used more for asset turnover within the company.

This result is different from research conducted by Asiah (2011) on the textile industry listed on the Indonesia Stock Exchange for the period 2003-2007 which states that CR has a positive and significant effect on company profitability. Research by Manyo (2013) on 43 companies listed on the Nigerian Stock Exchange for the period 2000-2009 states that the CR variable has a positive and significant effect on ROA. Salehi (2012) conducted a study on 120 manufacturing companies listed on the Tehran Stock Exchange for the period 2006-2010 stating that CR has a positive and significant effect on ROA when the company's management manages it as working capital properly.

5.6.4 Effect of liquidity on investment decisions

The results of the analysis show that liquidity has a positive and significant effect on investment decisions. This means that the company makes an investment decision by maximizing the use of current assets with a relatively short period of time compared to using fixed assets.

The results of this study support research conducted by Munir (2014) Effect of Liquidity on Investment Decisions and research conducted by Hartono and Wahyudi (2017) analysis of factors that influence investment decisions in property and real estate companies states that liquidity has a positive effect on investment decisions. The high current ratio bias is influenced by several things, namely the amount of cash flow, as well as the level of credibility of the company in relation to creditors. The company's management will use the existing liquidity potential to pay off short-term obligations and fund the company's operations, with good liquidity will later attract investors' interest in making decisions to invest in the company.

5.6.5 The effect of profitability on investment decisions

The results of the analysis show that profitability has a positive and significant effect on investment decisions. This means that the higher the profitability generated by the company, the higher the interest of investors to invest. In accordance with signaling theory which states that high profitability can be interpreted by external parties as a positive signal for the company's good performance. Because a company that has a large amount of profit (large amount) can use its profits in large quantities to fund the company's assets.

The results of this study support the research conducted by Wijaya and Langgeng (2011), Hartono and Wahyudi (2017) and Rahmad (2017) show that profitability has a positive effect on investment decisions. This shows that the greater the company's ability to earn profits, the company will tend to make decisions to invest. This is because the profit earned is one source of funds for investment activities.

5.6.6 Effect of capital structure on investment decisions with profitability as an intervening variable

The results of the analysis show that profitability is able to mediate the effect of capital structure on investment decisions or in other words capital structure has an indirect effect on investment decisions through profitability. This means that the sample company can increase investor interest in making investment decisions by increasing debt, where the increase in debt can also increase profitability which can indirectly increase investor interest in investing higher.

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The results of this study support research conducted by Dewi, Cipta, and Kirya (2015), Chandra, Kamaliah, and Agusti (2016) who found the debt to equity ratio had a negative effect on return on assets. Pradnyanita (2019) stated that capital structure has a negative effect on profitability. Previous research conducted by Anjani (2012), Safitri (2016), Rahmiati and Putri (2015), Ogilo and Billeil (2015), Ikhsandi (2015) and Wijaya and July (2011) showed that profitability had a positive effect on investment decisions. The signal given by the company with high profitability will further increase the desire of investors in making investment decisions. The higher the profitability, the higher the investment decisions that will be made.

5.6.7 Effect of liquidity on investment decisions with profitability as an intervening variable

The results of the analysis show that profitability is able to mediate the influence of liquidity on investment decisions or in other words liquidity has an indirect effect on investment decisions through profitability. This means that the company makes an investment decision by maximizing the use of current assets which will directly increase the company's profitability. With the increase in the company's profitability, it will attract interest from investors to carry out investment activities in the company.

The results of this study support research conducted by Asiah (2011), Salehi (2012) and Manyo (2013) stating that liquidity has a positive effect on profitability. Previous research conducted by Munir (2014) the effect of liquidity on investment decisions and research conducted by Hartono and Wahyudi (2017) states that liquidity has a positive effect on investment decisions. From some of these descriptions, it can be seen that profitability is able to influence the influence of liquidity on investment decisions.

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

Based on the results of research and discussion in the previous chapter, it can be concluded several things as follows:

- 1) Capital structure take effects significant negative on profitability. This means that if the capital structure ratio is greater, the amount of long-term debt will increase so that the interest expense will increase and operating profit will decrease because it is used to pay off the interest expense which will result in a higher net profit after tax. less will be accepted by the company.
- 2) Liquidity has no significant positive effect on profitability. This means that the liquidity (CR) of manufacturing companies listed on the IDX is relatively stable in growth, so that CR does not affect profitability in this case ROE. The same thing can happen because the company has assets that are not or are underutilized to be able to generate more profit.
- 3) Capital structure has a positive and significant effect on investment decisions. This means that the better the capital structure of the company, the more interest of investors to invest in manufacturing companies on the IDX.
- 4) Liquidity has a positive and significant effect on investment decisions. This means that the company makes an investment decision by maximizing the use of current assets with a relatively short period of time compared to using fixed assets
- 5) Profitability has a positive and significant effect on investment decisions. This means that the higher the profitability generated by the company, the higher the interest of investors to invest. In accordance with signaling theory which states that high profitability can be interpreted by external parties as a positive signal for the company's good performance. Because a company that has a large amount of profit (large amount) can use its profits in large quantities to fund the company's assets.
- 6) Profitability is able to mediate the effect of capital structure on investment decisions or in other words capital structure has an indirect effect on investment decisions through profitability. This means that the sample company can increase investor interest in making investment decisions by increasing debt, where the increase in debt can also increase profitability which can indirectly increase investor interest in investing higher.
- 7) Profitability is able to mediate the influence of liquidity on investment decisions or in other words liquidity has an indirect effect on investment decisions through profitability. This means that the company makes an investment decision by maximizing the use of current assets which will directly increase the company's profitability. With the increase in the company's profitability, it will attract more interest than investors to carry out their investment activities in the company.

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Market Segment Based on Customer Analytics: An Approach on The S Bank's Big Data (Vietnam)



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ABSTRACT: With the source of big data extracted from the S Bank, the sample of 3,527 customers with 130,000 transactions is employed in the study. Based on the RFM approach plus the mathematic method of K-means analysis taken into account, five market segments are found, such as: spender group (38.8%), shopper group (10.3%), frequent group (14.8%), uncertain group (27.5%), and best group (8.5%). The derived client segmentation is focused on transaction functionality. This finding contributes to the planning, on the basis of its transaction, of a system for segmenting customers to estimate the potential value of the various segments of customers in the bank, in particular for the retail banking sector. In addition, empirical research findings may provide feedback on marketing strategies, develop promotional programs to introduce new products for each category, and stimulate the most profitable consumer group's consumption.

KEYWORDS: Market segment, customer analytics, RFM, banking

1. INTRODUCTION

The exponential growth of information technology in the banking sector has given rise to a major concern that banks need to learn about how to explore internal data in order to serve competitive strategies. Indeed, most banking, insurance and financial services institutions are currently attempting to follow a modern approach to data mining for the advancement and innovation of the services toward customer retention.

Investing in the Big Data infrastructure induces simulation that data mining is of considerable interest to the financial industry because it facilitates the retrieval of useful knowledge from large volumes of data. It particularly helps to recognize customer behavior toward an effective strategy. In fact, big data from businesses is not easy to explore. It generates more profitability once customer analytics on big data are concerned well.

The value of consumer partnerships has now been recognized by banks, which is one of the effective reasons. Nevertheless, problems with how to maintain the most valuable customers and reduce the churn rate are troublesome. Big Data are a valuable resource and very helpful to correctly measure and forecast consumer behavior. The power of data is therefore to extract utility through different domains of its functioning, product through distribution, regulatory compliance management, risk management and management of customer service.

As we know, bank operation specifics produce a large amount of data from unstructured data, such as transaction history, customer to unstructured data, such as the activities of the customer on the website, or the social networking mobile banking application. The most troublesome, though, is how to explore accessible big data. Although there are not a few banks that understand this and want to turn big data into the most powerful tool for market rivalry, new systems, skills, and so on seem to face challenges.

With changes in Vietnam's integration policies through the information technology system, along with fire competition, more and more Vietnamese banks have been paying more attention to investing a massive amount of money into big data system and people's power. S Bank, for example, is one of the banks that is able to spend money very early on in structuring the data structure. To help business plans, it understands data warehouse benefits. In reality, the internal advantages did not improve the effectiveness of internal management, but also helped to increase the competitive advantages and optimize profits.

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At present, banks need to be agile in their plans for innovation initiatives in order to capture customer needs and boost customer loyalty and retention. CRM is, by the way, very useful and recognized for customer acquisition and retention. As a result, the bank would be more likely to develop long-lasting and successful customer relationships.

S Bank has offered a capacity-building initiative for workers directly linked to data analytics and business growth to investigate the bank's Big Data infrastructure. In addition, the database department is set up to leverage the internal database that positions an employee's role in the creation of talent in the ecosystem. All, though, seems to be more and more concerned and used for data mining, predictive consumer behavior analytics.

Banks may use data to stand out from competition and improve their position against emerging technology companies. Second, they need a better interpretation of their clients, not one focused on a particular incident or encounter, but one focused on a more nuanced view of actions. By looking at the evolution of financial behavior and how it interacts with non-bank life, banks can better understand what motivates consumers and see evolving patterns in building new goods and services in a radically changed environment.

This paper aims to investigate transaction history of customers who are using bank services and obtain market segments. This study serves as an experiment to help discover customer segments for business strategy.

2. CONCEPTUAL FRAMEWORK

Banking institutions need to be ahead of the curve to stay competitive in this modern era. Banks should work with companies that specialize in data analytics and predictive analysis to get an edge on their competition. To do this, big data system should be concerned. Once data is extensively explored, the bank can get a chance to make a lower cost in business and achieve greater performance. In reality, in the business unit, several forms of costs can be incurred, such as advertisement costs to attract potential clients, costs of a personal sales pitch to new buyers, contact costs to clarify business processes and dealing with new clients. When business units have a strong approach to data mining, these costs can be minimized. Banks in Vietnam, for example, have a significant investment in big data systems to record consumer actions from various channels.

Unlike customer satisfaction and customer loyalty, customer retention is an ability to remain customer over time and measures a relationship between the customer and the firm. Once a customer is retained longer, expectation of loyalty is possible (Jaiswal, Niraj, Park, & Agarwal, 2018). However, according to Kumar et al. (2013), indicating customer satisfaction offers only a small portion of variance in loyalty, but not convincing much to enhance customer retention. Big data is a term used to describe the large volume of data that is being generated by businesses and people. The process of collecting and analyzing database from big data can help companies make better decisions about their business. Once the right strategy based on customer analytics is derived, the churn of bank can be reduced.

Because of competition, retail banks have paid more attention to revamping loyalty programs toward customers. This is strongly considered toward incorporating a reward system into the bank's plans. Currently, many retail banks offer a significant number of potential rewards to promote and solidify customer loyalty. The banks develop a relationship based on two-way street, in which the customer will remain in the relationship only once there is value in doing so. However, once the customers' purchase volume is increased and beneficial relationship gradually takes shape, the customers' relationship with banks is remained (Jaiswal, Niraj, Park, & Agarwal, 2018)

There are many studies using big data to analyze customer consumption (Khajvand & Tarokh, 2011), these studies mention that big data as the tool allow a business unit to manipulate, create and manage huge data sets, also it is stored and required to support the volume of data, characterized by variety, volume and velocity¹.

Internationally, banks are starting to leverage the power of data in order to create value across multiple aspects of their business, ranging from sentiment analysis, product cross-selling, regulatory compliance management, reputational risk management, financial crime management, and so on (Srivastava & Gopalkrishnan, 2015).

Big Data in banking and its contribution

Once the number of customers grows, the bank has to care about delivering quality to a certain degree. Practice demonstrates that the method of tracking and analyzing consumer credit banks and financial institutions, based on vast quantities of data such as records, personal and other sensitive information, has been streamlined by review of existing data. But with the available big data, banks can take advantage of constantly tracking the customer's actions in real time, identifying data sources needed to collect justice solution service. Customer records of assessment processes in real time would gradually improve operational efficiency and profitability, fostering more organizational development.

¹ Meta Group. *Application Delivery Strategies; February 2001*

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There are many sources of big data in most industries and in various fields, not just in the banking and financial services sectors. Every customer transaction at banks creates electronic records, the copies are kept in compliance with legal legislation, and transactions at various locations are kept in the office ATMs as well as information stored in the bank. Thanks to big data analysis, the financial services of companies no longer store the data as needed as in the past, but now they are more involved, more involved in extraction to obtain the results that are focused on that provide solutions to enhance operations, increase the organization's profitability.

Segmentation of consumers and consumer records analysis

Once an initial analysis of the customer's spending habits is carried out to identify the type of service, channel transactions are priority customers (i.e. customers who want to save or invest in credit), a database serving the segment will be compiled, the customers will be classified on the basis of the information and documents provided by the clients. Customers who spend comfortably, customers quickly pay the debts and begin to repay the maturing, big data would offer banks customers' information, experience and deep spending patterns, simplifying the task of defining their needs and desires. The bank will be able to identify customers on the basis of different criteria by being able to monitor each transaction by customers, including services frequently used by customers, time to use the service, spending patterns while using a credit card or even a net asset value (net worth plus the value of customer assets minus liabilities).

Benefits that bring customer segmentation is that it allows banks to target customers with better marketing campaigns relevant and designed to meet the exact needs of the customer. A segmented approach to marketing will help banks better serve their specific niche. For example, some banks cater to young professionals, while others offer financing for new parents. To reduce the risk of taking on more risk than they should, banks segment high net worth and low net worth clients. Why not offer a service that helps bridge this gap? Researching the market and securing capital is key to success.

RFM method

As known, RFM is a good tool to measure customer behavior, it seems as an incredible and perceived technique to evaluate the customers' commitment to business units and differentiates important customers from large data by three attributes of recency, frequency and monetary. Based on customers' purchasing history, RFM is quite supported to address customers' classification and ranking.

According to Cheng & Chen (2009), the detail definitions of Recency, Frequency and Monetary method are described as the following: (i) Recency (R) is defined as an interval between the time when the latest purchasing order presents and happens such as one week, one month or one quarter. A lower recency value means that customers frequently visit the company. Likewise, the higher value implies that in the near future, customer sometimes or rarely visits the company; (ii) Frequency (F) is shown as the number of purchasing transactions made in a given period of time by customer, for example, one time per year, two times per quarter or three times per month. The higher frequency value, the more loyal customers regarding the company; (iii) Monetary (M) is identified as the total money amount that customers spent during one specified time. So, the more money consumed, the more earnings customers bring to the company.

Accordingly, Wu & Lin (2005) demonstrated that the higher the value of R and F is, the more comparable customers make a new transaction with companies. In addition, the higher M value is, the more comparable customers purchase products or services of companies several times. All customers are analyzed by recency, frequency, and monetary scores which take place in the scale from 1 to 5 as a quintile based on its original records, in which 1 being unlikely and 5 being likely. Scores of combinations of RFM are assumed to get remarkable attributes as shown in Table 1. Once all R, F and M are the most recent, the most frequent, and the highest spend, respectively, the score of customers belonging to this group is called "champions" with the highest score of 5. Conversely, once indicators of R, F, M are the least recent, only one transaction, and the lowest spent, respectively, customers belonging to this group are called "lost", due to its score is the smallest score of 1.

Table 1: Recency, Frequency and Monetary Score Description

Score	Classification	Recency	Frequency	Monetary
5	Champions	Most recent	Most frequent	Highest spend
4	Promising	Much recent	Much frequent	Much spend
3	Can't-lose them	Recent	Frequent	Average spend
2	At risk	Less recent	Less frequent	Less spend
1	Lost	Least recent	Only one transaction	Lowest spend

Source: Wu & Lin (2005)

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3. Research Methodology

Data collection: The data used is derived from the S Bank's data warehouse. This study is seriously needed to be confidential, so it is not persuaded that the use of data as well as the results of this study must be responsible for who can use the information. In the data mining process, data preprocessing is taken into account, since it increases the accuracy and efficiency of subsequent modeling (Han & Kamber, 2006). Data pre-processing technology tasks include data cleaning, data transformation, data integration and data reduction.

The database used in the analysis is derived from the bank's data warehouse, with daily data of 12 months from 1 January 2019 to 31 December 2019. Accordingly, there are 3,527 clients employed in the study with 130,000 rows. It means each row is a transaction of customer at the S Bank and one customer has more transaction. As depicted in table 2, the current paper takes into account of 25 variables. Each has a given measure, such as nominal, continuous, date or categorical measurements.

Table 2: Information of variables concerned

Name of variable	Definition	Measurement
1. CIF	ID of customer	Nominal
2. Branch	ID of branch	Nominal
3. No.document	ID of customer document	
4. Type of customer	Type of customer + Credit customer + Individual customer + family business customer	Nominal variable
5. Access date	Date to register service of customer	date
6. Approved date	Date of documents approved	date
7. Document score	Score on initial documents of customer that the staff evaluates	Continuous
8. Gender	Gender of customer	Nominal
9. Age	Age in years	Continuous
10. Education	Education of customer	Nominal
11. Community	Behavior community relations + Prestige + Good enough + Unknown	Nominal
12. Marital status	Marital status: Single and married	Nominal
13. Job position	Positions + Manager + Worker + Director + Office staff	Nominal
14. House ownership	Status of house property of customers + Owned house + Rented house + Stayed with parents' house	Nominal
15. Usage	Time using loan services from banks + only loan services from 'S' bank + loan services from 'S' bank > another bank + loan services from 'S' bank = another bank + loan services from 'S' < another bank + No loan services from 'S'	Nominal
16. Type of product	Type of loans	Nominal
17. Type of card	Type of card: Main and non-main	Nominal
18. Level of card	Value of card level	Continuous
19. Balance account	Balance account measured in Vietnamese currency (VND)	Continuous

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20.	Fee	Annual fee (Yes/No)	Nominal
21.	Card_date	Date to issue the bank card	Date
22.	No.Card	Account number of card	Series number
23.	Ncard_Date	Date to approve the new card	Date
24.	Workingyear	Number of years of customers working	Continuous
25.	Income	Income of customer measured VND/month	Continuous

Methodologies to analyze Data

One of the instruments used in descriptive statistics is data mining. In addition, clustering techniques are employed to cluster customers into groups, which satisfy two main criteria: (i) each group or cluster is homogeneous; (ii) each group or cluster should be different from other clusters. This method mainly gains customer segmentation. In terms of classification method, the cluster of K-means is employed to segment customers (Khajvand & Tarokh, 2011).

Input variables recruited in the cluster method are generated by the RFM indicator, which R as Recency, F as Frequency, M as Monetary are generated. Since segmentation is on the basis of Recency – Frequency – Monetary (RFM), the selected features of data to meet RFM is included last transaction date (purchased), count transaction (purchase) and total monetary that customer took loan during one year and count item which refers to variety of customer taken transaction. To count transactions, it is the frequency of customer transactions. In data transformation, the data is transformed in a way that can be exploited by data mining tools.

C&R Tree as a "Classification and Regression Tree" is also employed to investigate customer behavior in more detail. It is supported to develop classification systems toward prediction based on a set of decision rules. Application of this method known as rule induction brings several advantages. Based on this the marketer can think and develop campaigns to retain customers and stimulate their consumption.

4. Empirical analysis

According to the database, the sample size of 3,527 active customers with 130,000 transactions is the main data toward data mining. The research period of data is collected from 1 January to 31 December 2019.

Based on descriptive statistics, four main groups of customers are buying services at the bank, in which customers with their position as staffs account for 26.5 percent, next as workers accounting for 26.1 percent, directors with 24.7 percent, and managers with 22.8 percent.

The bank provides 18 forms of credit facilities at the time of analysis. These credits are broken into 8 main groups to be handy, e.g. VG (Visa Gold), VC (Visa Classic), MG (Master Gold), MS (Master Standard), VP (Visa Platinum), VV (Viva Violet Card), VA (Visa Auto Card), and others. Accordingly, VG is the best concern of customers (24 percent), next as VC with 22 percent, MG with 12 percent, MS with 11 percent, VP with 9 percent, VV 7 percent (Figure 1).

As a consequence, both VG and VC have a share of 46 percent and are common with the citizens on average between 64.8 million VND and 87.9 million VND per month, whilst the VP is associated with customers with the highest income, for example, 347.5 million VND per month on average.

Type of card	Income (VND/month)	Customer amount	Percent(%)
VP	347,487,790	327	9%
VV	215,864,954	243	7%
OTHER	171,826,314	370	10%
MG	131,383,244	426	12%
VG	87,944,515	855	24%
VC	64,843,408	787	22%
VA	33,580,597	120	3%
MS	19,629,088	399	11%
TOTAL		3,527	100%

Figure 1: Type of products that consumers are concerned

Source: Big data of the S Bank

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Note of product types:

VG:	VISA GOLD
VC:	VISA CLASSIC
MG:	MASTER GOLD
MS:	MASTER STANDARD
VP:	VISA PLATINUM
VV:	VISA VIOLET CARD
VA:	VISA AUTO CARD
OTHER:	JP = JCB Platinum; JC = JCB Standard; JETSTAR = JCB Credit Jetstar; JG = JCB Gold; VB = Visa Business; MW = Master One World; PB = Master Passbook Card EEFA = UAFA Card.

Active customers who have the length of stay (LOS) in the bank service must be more than 12 months. This requirement is to prevent the prejudice of customers with LOS of less than 12 months, as these customers cannot value the services of the bank if their services are only a few months like two or three or so on. Accordingly, the data result that the customers of LOS with the range of >12-31 months account for the highest percent of 37.55, next as the range of >31-45 months occupies 20.7 percent, next as the range of >45-52 months with 16.9%, the range of >52-65 months with 13.4%, and the range of >65-81 months with 11.4%. According to descriptive statistics, three types of products approached by customers, with customers borrowing for personal use accounting for 54 per cent, customers using a credit card accounting for 43 per cent, and the last offering a family business loan for 3 per cent.

Customers are allowed to request one main card from the bank, including both main and extra cards for their demand. The main card is the customer's primary use for regular purchases, e.g. cash withdrawal, Visa card, etc., while the extra cards are additional use for secondary demand, e.g. payment card for fuel, travel, additional services, etc. According to bank regulations, one customer can use one or more cards issued by the bank due to transaction demand. Accordingly, the customers who use both main and extra card accounting for 22%, while 78 percent is occupied by customers with only main cards. Customers who are using both main card and extra cards at the same time are popular for directors with 35 percent of them concerned, less as workers (27 percent), manager (25 percent), and staff (13 percent).

At the same time, the use of two cards is an expression of users' needs. The growing trend of cross-selling strategies that leverage all consumer demands in the future, in particular for high-income groups and high positions, should also have been noted in this result.

RMF and Market Segment

As stated previously, applying the model of RFM is to analyze customer behavior, its application is based on Wu & Lin (2005) and Khajvand, Zolfaghar, Ashoori, & Alizadeh (2011) to develop the matrix by a combination between LOS and Recency.

Concerning the matrix of combination between LOS and Recency of WU & Lin (2005), the result is derived and presented in Figure 2. There are four cells with paired interaction, each one has a number of customers with card usage as follow

(1) CLOSE RELATIONSHIP (CR): it is an integration between High of LOS and LOW of Recency, so called "potential relationship", accounting for 1,777 customers, and equivalent to 50.38 percent of total customers. The card is the best consideration of this group as Visa Gold (VG), accounting for 26.1 percent, next as Visa Class (VC) with 16.6 percent, Master Gold (MG) with 14.1 percent, Visa Platinum (VP) with 12.2 percent, and Master Standard (MS)

(2) LOST RELATIONSHIP (LR): it is integration between LOW of LOS and LOW of Recency, so called "lost relationship", accounting for 49.22 percent of total customers. The card of Visa Class (VC) is the best consideration of customers with the share of 28.2 percent, next as Visa Gold (VG) card with 22.4 percent, Master Standard (MS) with 10.5 percent and Master Gold (MG) with 10.5.

(3) POTENTIAL RELATIONSHIP (PR): it is an integration between LOW of Recency and HIGH of LOS. However, this PR has only 6 customers. As a result, the following analysis will not focus on this group, due to very few customers

(4) ESTABLISHING RELATIONSHIP (ER): It is an integration between HIGH of Recency and LOW of LOS. However, there are only 8 customers in this cell. As a result, the following analysis will ignore this group.

As found in the matrix, we can see a good picture and bad picture of the bank, in which the good picture that the bank has 50.38 percent customers belong to "Close Relationship", the bad picture that the bank has 49.22 percent customers belong to "Lost

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Relationship". This finding brings an important message of alarming churn of customers if the bank does have an urgent strategy to retain the group of "Lost Relationship".

LENGTH OF STAY (LOS)	HIGH	<p style="text-align: center;">POTENTIAL RELATIONSHIP (PR)</p> <p>Number of customers: 6 (0.17%)</p> <p>Card usage:</p> <p>-MG: 16.7% -VP: 0.0%</p> <p>-MS: 33.3% -VV: 0.0%</p> <p>-VA: 0.0% -VG: 0.0%</p> <p>-VC: 33.3% -OTHERS: 16.7%</p>	<p style="text-align: center;">CLOSE RELATIONSHIP (CR)</p> <p>Number of customers: 1,777 (50.38%)</p> <p>Card usage:</p> <p>-MG: 14.1% -VP: 12.2%</p> <p>-MS: 12.0% -VV: 6.6%</p> <p>-VA: 2.0% -VG: 26.1%</p> <p>-VC: 16.6% -OTHERS: 10.4%</p>
	AVERAGE	<p style="text-align: center;">LOST RELATIONSHIP (LR)</p> <p>Number of customers: 1,736 (49.22%)</p> <p>Card usage:</p> <p>-MG: 10.0% -VP: 6.4%</p> <p>-MS: 10.5% -VV: 7.2%</p> <p>-VA: 4.8% -VG: 22.4%</p> <p>-VC: 28.2% -OTHERS: 10.4%</p>	<p style="text-align: center;">ESTABLISHING RELATIONSHIP (ER)</p> <p>Number of customers: 8 (0.22%)</p> <p>Card usage:</p> <p>-MG: 12.5% -VP: 0.0%</p> <p>-MS: 12.5% -VV: 0.0%</p> <p>-VA: 12.5% -VG: 25.0%</p> <p>-VC: 0.0% -OTHERS: 35.5%</p>
	LOW	LOW	HIGH
	RECENCY		

Figure 2: Matrix of LOS and recency

Source: Big data of the S Bank

Note of product types:

VG:	VISA GOLD
VC:	VISA CLASSIC
MG:	MASTER GOLD
MS:	MASTER STANDARD
VP:	VISA PLATINUM
VV:	VISA VIOLET CARD
VA:	VISA AUTO CARD
OTHER:	JP = JCB Platinum; JC = JCB Standard; JETSTAR = JCB Credit Jetstar; JG = JCB Gold; VB = Visa Business; MW = Master One World; PB = Master Passbook Card EEFA = UAFA Card.

RFM and its market segment

As defined previously, indicators of RFM are employed as inputs of the cluster method, which we can find consumers grouped into market segments.

Recency: one of the most important elements identifies the potential customers with the highest transaction value at the bank not far from the present. The most current transaction of a customer can confirm that she or he may be using services from the bank again, or they are new customers.

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Frequency: it can play as a second element to measure frequency of customers who visited and took transactions at the bank during the period of study. The higher frequency, the higher chance the customer can buy more products or use more services from the bank.

Monetary: it is measured by the total value of balance account that customers have transactions at the bank during the period of the study. Once the higher value of the balance account is presented, it is a signal that customers have spent to buy more service or product. The more they spend, the more they are much attracted by the services of the bank.

In fact, RFM is popularly used to segment market, where the method of cluster analysis is applied, directly K-Means. As resulted in Figure 3, there are 3,527 customers grouped to 5 clusters, each cluster displayed as a market segment.

According to the method of RFM, the value of each element in RFM is ranked by a five-point scale, with 1 being extremely poor, 5 being extremely high. But R (recency) is opposite, which 1 being the time of the last buying is far away from the current time of study, 5 being the time of last buying is the closest to the current time of study. As a result, values of each element of RFM are mean values, the higher value, the higher likely.






Cluster	Label	Description	Size	Inputs		
Cluster-1	R=LOW; F= LOW; M= HIGH	Spender group	 38.8%	Recency (3.01)	Frequency (1.00)	Monetary (3.99)
Cluster-2	R=HIGH; F= HIGH; M= LOW	Shopper group	 10.3%	Recency (4.15)	Frequency (3.90)	Monetary (1.93)
Cluster-3	R=LOW; F= HIGH; M= LOW	Frequent group	 14.8%	Recency (1.42)	Frequency (3.98)	Monetary (2.77)
Cluster-4	R=LOW; F= LOW; M= LOW	Uncertain group	 27.5%	Recency (1.22)	Frequency (1.00)	Monetary (1.16)
Cluster-5	R=HIGH; F= HIGH; M= HIG	Best group	 8.5%	Recency (4.01)	Frequency (4.32)	Monetary (4.65)

Figure 3: Marketing segment based on RFM

Source: Source: Big data of the S Bank

To cluster 1: it is defined as a spender group, in which customers have the low recency (R=LOW) and low frequency (F=LOW), while the monetary is high (M=HIGH). This means that the customers have a high balance account, due to the large loan during the study period during 12 months. As a result in Figure 3, the customers belong to this spender group accounting for 38.8 percent. The bank should consider these customers to avoid a risk of payment capacity.

To cluster 2: it is defined as a shopper group, which customers have the high recency (R=HIGH) and the high frequency (F=HIGH), while the monetary is low (M=LOW). This means that these customers often have visiting frequency for transactions, particularly for current time. However, transaction times have low shopping as low loans. According to Figure 3, the customers belonging to the shopper group account for 10.3 percent. The bank can check transaction behavior as a profile of customers to select good ones to attract them more shopping at the bank.

To cluster 3: it is defined as a frequent group, in which customers have the low recency (R=LOW) and the low monetary (M=LOW), while the frequency is high (F=HIGH). This means that the customers take transactions for payment or doing something else. May be said that this group has a good responsibility for loan payment. The bank should take care of these customers to attract them for new services, because they are quite potential and not risky. As depicted in Figure 3, the cluster of the frequent group accounts for 14.8 percent.

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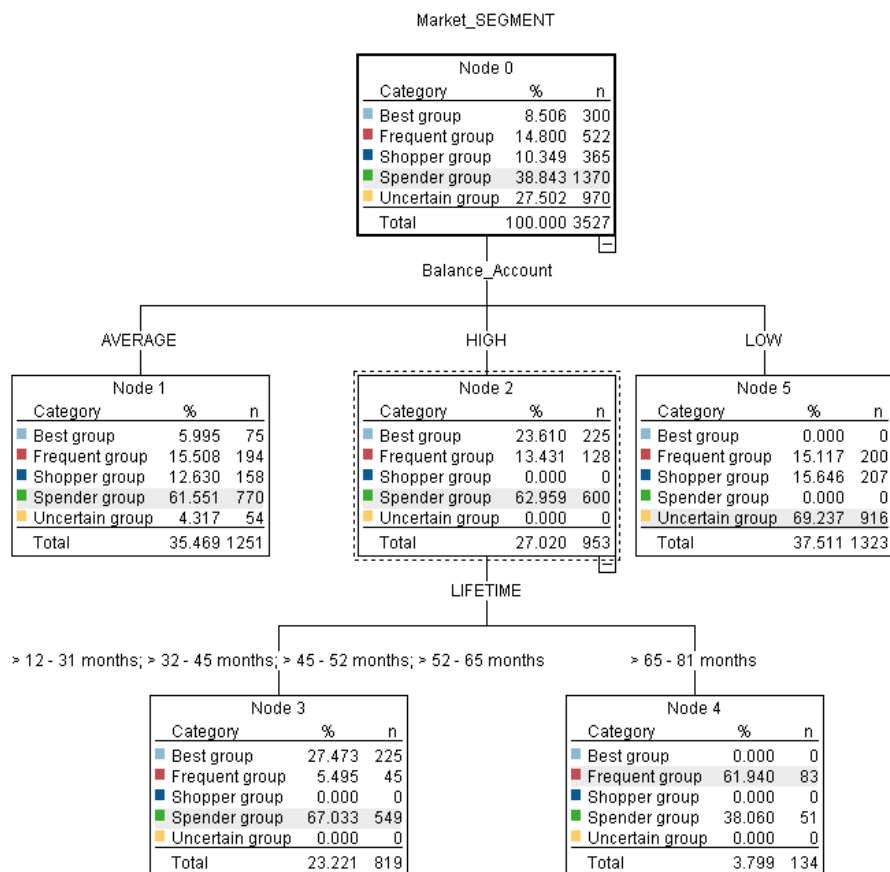


Figure 4: Result of Tree Decision of five market segments

Source: Source: Big data of the S Bank

To cluster 4: it is defined as an uncertain group, in which customers have the low recency (R=LOW), the low frequency (F=LOW), and the low monetary (M=LOW). As a result, the customers of this cluster spent not much on buying during the research study, and they did come back to visit for transactions very few. This group accounts for 27.5 percent (Figure 3).

To cluster 5: it is defined as a best group, which the recency, frequency, and monetary of customers all are high (R=HIGH, F=HIGH, M=HIGH). This means that customers have highly current transactions, more visiting frequency to the bank and high transaction values. The contribution of this best group is valuable, so the bank should have premium programs for these customers to retain them and make them to be loyal in the future.

Applying the method of Tree Decision as mentioned derives the result shown in Figure 4. Accordingly, there are five nodes, each node presents descriptive statistics. Node 1 presents the average balance account, which the customers are spenders accounting for the highest percent of 61.55 percent, equivalent to 770 customers, while the best group occupies almost 6 percent.

Similarly, node 5 is the low balance account, which the customers are uncertain for their transaction, accounting for the highest percent of 69.24 percent, equivalent to 916 customers. Reasons of customers with low balance accounts happened in the market segment of the uncertain group may be that they are workers or staffs often have a low loan.

5. CONCLUSION AND IMPLEMENTATION

Based on data mining of 3,527 customers from the source of big data, the mathematics methods of K-Means cluster and Decision Tree are taken into account. Initially, the overall image of the S Bank's real condition is portrayed by descriptive statistics. The S Bank's service is used by four major categories of clients, such as, directors, managers, staff, and some of workers. These customers have a long period of loyalty to the bank's service, with 60 per cent in the length of stay (LOS) of the customer remaining with the bank for more than 3 years, with about 11 per cent in LOS for 5 years and above.

Many consumers pay greater heed when utilizing two cards, the so-called main card and the extra card. At the same time, the use of two cards is an expression of users' needs. The growing trend of cross-selling strategies that take advantage of all consumer

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demands in the future, particularly for high income groups, and have high positions should also have been noted in this overall result.

These cards are grouped into eight main groups, such as VG (Visa Gold), VC (Visa Classic), MG (Master Gold), MS (Master Standard), VP (Visa Platinum), VV (Viva Violet Card), and VA (Visa Auto Card). VG and VC, however, are both popular and concerned with the highest. Clients of the top two products, e.g. VG and VC, which appear to be more interested in directors for VG, and VC are more interested in staff. Moreover, consumers that use VG have higher income than VC.

With the application of K-means analysis, in which cluster analysis involves three components of R, F, and M. Five segments are constructed on that basis. The uncertain group is a bit high at 27.5 percent, while 8.5 percent of the customers are the best overall. Moreover, many clients also come to the bank for small transactions.

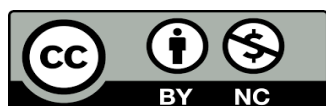
The findings carry a significant message, the best group is populated by customers who are directors and managers, while the customers belonging to the unpredictable group are mostly workers, since the income level of employees is limited and unstable, this is consistent with practices. In order to build suitable plans and stimulate more transaction values in the future, the results are good for the bank. The message, on the other hand, also confirms that workers & staff are insecure, not unexpectedly, since these people are low-income, particularly for employees who are often unstable.

Moreover, the results of the business segment show that the high percentage of consumer purchase spending is accounted for by credit card customers and personal use customers. This means that these clients often have an immense amount of transactions. As seen, the demand characteristics of five consumer segments are extremely accurate since these results are measured on the consumer usage experience reported in the framework. To leverage the market efficiently, the bank's marketing plan needs to build typical campaigns to meet the demand of the consumer.

The derived client segmentation is focused on transaction functionality. This finding contributes to the planning, on the basis of its transaction, of a system for segmenting customers to estimate the potential value of the various segments of customers in the bank, in particular for the retail banking sector. In addition, empirical research findings may provide feedback on marketing strategies, develop promotional programs to introduce new products for each category, and stimulate the most profitable consumer group's consumption.

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Impact of Spirituality on Life Course

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ABSTRACT: Empirical data says that older age group people are more content in their lives rather than the younger ones. Assumptions about retirement connected with stress and morbidity continue to flourish despite tons of empirical contradictory data. The perpetual mismatch between theory and certain empirical data is one of the things that has led us to believe that we sometimes erroneously project midlife values, activity patterns, and expectations onto old age. Rajyoga being taught by Brahma Kumaris at world spiritual university is a unique spiritual education which facilitates the individual to realise true potential of uplifting one's self-identity or Awareness. The dimensions of life and spiritual knowledge allows the person to enlighten himself to experience the golden era where enlightened individuals called as angels live having higher consciousness and live in an environment of perfect order. This spiritually transcending experience is timely selective to all the individuals, irrespective of caste and creed and religion because the age undergoes transition, and the world has to move towards a better life.

KEYWORDS: Spirituality, Dimensions of life, Retirement, self-identity, Self-identification, Self-awakening, Self-Enlightenment, Self-realisation, Ego, Self, Transcendence, Self-acknowledgement.

INTRODUCTION

Rajyoga being taught by Brahma Kumar is at world spiritual university is a unique spiritual education which facilitates the individual to realise true potential of uplifting one's self-identity or awareness. It also helps in experiencing the true and deeper qualities which manifest and vibrate in a natural way in the state of higher consciousness. When a person realises in the realms of spiritual experiences that he is truly a sentient energy, eternal and immortal being, a soul radiating true qualities like bliss, peace, happiness and serenity he / she becomes the embodiment of all virtues. This unique true self-realisation makes individual to experience detachment, He /She transmits the same experiences in others by virtue of which he / she creates an atmosphere of harmony within the society. This process of transformation gradually uplifts one's overall development through attaining not only physical, social or emotional well being but also spiritual well being. The person experiences a state of immortality that helps in developing feelings of belongingness towards other individuals. This elevated consciousness is called soul-consciousness. It is a way of divinizing the self and attaining self mastery through higher consciousness.

This institute introduced second spect of self realisation which makes the person to experience the power and qualities of soul like peace, bliss, happiness and serenity in a higher order i.e. realisation of God in which this universal energy that is in the form of divine spark of light radiates the rays of happiness, peace and bliss enabling the individual to stay in constant remembrance of that divine light by virtue of which his powers get enhanced many folds. In this process of contemplation one experiences the universal energy as true father, mother, true companion and guide. This bond allows the person to experience the mastery of eight powers which enables the person to lead a successful life. These are: power to tolerate, to accommodate or adjust, to judge, to discriminate between right and wrong, to cooperate, to detach and to face adverse conditions of life. This mastery becomes reality through his constant practice of self-realisation and God-realisation. This is how a person realises and understands this supreme source of universal energy through a varied depth of enlightening experiences which are highly nurturing and elevating. He markedly experiences this source as an ocean of peace, power, love, bliss and knowledge. This spiritual institute also introduced the third aspect of spiritual revelation for cause and effects of cosmic events and day to day happenings of events that lead to happiness or sorrow and benefits or loss to the living world. It reveals that when consciousness shifts from its true awareness of

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peace, bliss and happiness, it then creates a kind of environment and events that take place in a cyclical pattern. Through intense Practice of meditation and developing practice of higher awareness the person is able to travel through his elevated consciousness and able to feel different ages and meet the souls of its hierarchy.

The spiritual knowledge allows the person to enlighten himself to experience the golden era where enlightened individuals called as angels live having higher consciousness and live in an environment of perfect order. This spiritually transcending experience is timely selective to all the individuals, irrespective of caste and creed and religion because the age undergoes transition, and the world has to move towards a better life. According to this institution the hidden secret of wisdom of spiritual transcendence is already there within us but the only matter of concern is that we should allow this seed to germinate and give its fruits in a way that it creates a nurturing environment to explore the secrets of life.

Easy Rajyogi gets up early in the morning to meditate and practices higher consciousness for one hour, Light exercises and jogging for 15 -20 minutes followed by spiritual class for an hour. He consumes light meals throughout the day. He Practises soul consciousness throughout the day even during his routine work and practices pure attitude and feelings to remain emotionally stable. In the evening he meditates for one hour. He meditates before going to sleep. If possible write a self reflective diary in which he tends to write about different social services and shares positive experiences with others. The practice of meditation involves detachment, self respect, unconditional love, easiness, simplicity, contentment, empathy and churning spiritual Knowledge. All these virtues and powers he experiences through creating positive thoughts in the context of creating pure awareness and connecting himself with a higher source of spiritual energy. Inspirative experiences are enhanced through the facilitating workshops and group discussions which are guided through spiritual teachers in each Rajyoga center.

METHODOLOGY

Elderly population (n=200) from across the country was taken as study subjects. A prior verbal consent was taken from them. Amongst this elderly population 100 were recruited into one group consisting of those who practise raj yoga and another group of 100 consisted of the population who doesn't follow raj yoga. A convenient sampling method was used. A pretested questionnaire was used as a study tool to record their opinions for life courses. To administer the questionnaire few personnel were trained on the technique of administering the questionnaire and recording of the replies. Special care was taken in recording the replies to rule out any sort of investigators bias. Data was entered and analyzed using SPSS version 16 and results were expressed in terms of percentages and whole numbers. A comparative study was also conducted in terms of results to see the difference between followers of raj yoga and non followers on various scales. Gero-transcendence, ego-transcendence and other scales were used to predict the results.

RESULTS

Total of 200 subjects were taken into consideration out of which 100 were Raj Yogis and 100 were those who were not practicing spirituality in any form. The subjects who were recruited in this study belong to the age group of 60 to 95. Mean age of the subjects was 68 with SD 6.5, variance of 42.3 and range of 35. These three perspectives have been measured in two dimensions of gero-transcendence:

1. **Cosmic Gero-transcendence**, which is connected with changes in perception of time, space, life, and death.
2. **Ego-gero-transcendence**, which is connected with changes in the perception of the self and relations with others (Tornstam, 1994).

This interview was conducted with those participants who displayed the highest levels of gero-transcendence to gain further information about the relevance of the concept of gero-transcendence to their lives. In accordance with procedures outlined by Tornstam (1997), participants were read a description of a gero-transcendent individual and were asked to indicate which aspects related to their own life. The three dimensions of gero-transcendence were questioned in separate questions. The Cosmic dimension was the focus of questions about different perceptions of 'time', and 'the relation with ancestors', the Self dimension was the subject of the question about 'discovering new sides in myself', and the dimension of Social and Personal relations in a question about 'changes in relationships'. After the brief description was read participants were asked: "Do you recognize this aspect in yourself?" "Does this description make sense to you?" The participants were then asked to elaborate on their answer. If the person answered that they indeed recognized the characteristic as being descriptive of their life, they were then asked to describe an episode in their life they believed marked the onset of such a feeling.

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COSMIC TRANSCENDENCE

84% of the rajyogis felt that the border between life and death is less striking compared with when they were at the age of 20yrs as compared to that of 78% non rajyogis. Although the results show a marginal decrease, it is a significant factor ($p < 0.05$) so a null hypothesis just on the basis of marginal decrease cannot be accepted as there may be many other factors which play a crucial role. When it comes to importance of individual's life, in comparison with the continuing life as such more individuals who practice rajyoga (84%) reported that individuals life is more important as compared to those who were not practicing rajyoga (72%) and it is also a significant factor ($p < 0.05$)

Another significant factor ($p < 0.05$) of mutual connection with the universe as of now compared with that when the individuals were at the age of 20 yrs also showed an increase amongst rajyogis (96%) compared to that of non rajyogis (82%).

Under the cosmic transcendence factor like experience of oneself to be close to the persons even when they are physically elsewhere also is significant with 85% of the rajyogis have such a subjective feeling as compared to that of non rajyogis (68%)

91% of the rajyogis felt that the distance between past and present disappears as compared to

66% of the non rajyogis and it is also a significant factor ($p < 0.05$)

92% of the rajyogis felt a greater state of belongingness with both earlier and coming generations as compared to 79% of the non rajyogis. So, if all these significant factors are taken into consideration Rajyogis have more of cosmic

transcendence as compared to that of non rajyogis and a null hypothesis of nonrajyogis having more of cosmic transcendence has to be rejected at $p \text{ value} < 0.05$.

EGO TRANSCENDENCE

83% of the Rajyogis reported to take themselves less seriously than earlier as compared to 70% of the non rajyogis which although having a value $p < 0.05$ could be considered as a significant factor.

More of the rajyogis 88% felt that as on today material things mean less to them as compared when they were 20 yrs of age whereas only 66% of the non rajyogis felt the same.

79% of the Rajyogis seem to be less interested in superficial social contacts as compared to 65% of the non rajyogis.

99% of the Rajyogis reported to have more delight in their inner world i.e, thinking and pondering as compared to when they were 20 years of age whereas only 81% of the non rajyogis felt so.

Thus, overall results show that individuals who practised rajyoga showed improvement in their ego-transcendence in comparison to those who were not practising rajyoga meaning thereby that if we are using cosmic and ego transcendence as two scales to measure the ego-transcendence, it was proven that greater number of individuals practising rajyoga showed presence of Gerotranscendence as compared to individuals not practising rajyoga. So both cosmic and ego transcendence are both significant factors and hence the statistically null hypothesis has to be rejected that age is the only factor for the presence of gerotranscendence. Another scale was being used to prove the theory of gerotranscendence which has three factors of cosmic dimension, coherence dimension and solitude dimension. Under this scale each individuals were asked to rate these factors on a fixed 4 point scale.

COSMIC DIMENSION

71% of the rajyogis agreed fully that they are connected with the entire universe as compared to 46% of the non rajyogis.

21% of rajyogis reported high on this scale as compared to 17% of the non rajyogis.

Greater number of the non rajyogis (26%) did not agree or agreed to a little extent that they are connected with the entire universe as compared to 5% of the rajyogis.

78% of the rajyogis reported that they feel totally or highly to be part of everything living as compared to 46% who were not practising rajyoga and 43% of nonrajyogis as compared to 17% of the Rajyogis reported little or not at all to feel a part of everything living.

69% of the Rajyogis reported that they feel a strong presence of people living elsewhere as compared to 47% who were not practising rajyoga and 40% of nonrajyogis as compared to 28% of the Rajyogis reported little or not at all to feel a strong presence of people living elsewhere. 77% of the Rajyogis reported that they feel to live in past and present simultaneously as compared to 52% who were not practising rajyoga and 37% of nonrajyogis as compared to 18% of the Rajyogis reported little or not at all to feel that they live in past and present simultaneously. 11% of the Rajyogis reported that they feel a strong connection with the earlier generation as compared to 31% who were not practising rajyoga and 57% of nonrajyogis as compared to 84% of the Rajyogis reported little or not at all to feel a strong connection with the earlier generation.

All these results showed that all factors are significant ($p < 0.05$) and cosmic dimension is more amongst the rajyogis as compared to those individuals who were not practising spirituality in any another form.

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COHERENCE DIMENSION

76% of the rajyogis reported that they feel that their life is organised and in comparison to 43% who were not practising rajyoga and 9% of nonrajyogis as compared to 14% of the Rajyogis reported little to that they feels that their life is disrupted and chaotic. 85% of the Rajyogis reported that the life they have lived has coherence and some meaning as compared to 58% who were not practising rajyoga and 34% of nonrajyogis as compared to 11% of the Rajyogis reported little or not at all to that the life they have lived has coherence and some meaning.

Overall results showed that rajyogis have more coherence dimension as compared to that of nonrajyogis.

SOLITUDE DIMENSION

82% of the Rajyogis reported that they like to be by themselves rather than with others as compared to 58% who were not practising rajyoga and 34% of nonrajyogis as compared to 12% of the Rajyogis reported little or not at all to that they like to be by themselves rather than with others.

90% of the Rajyogis reported that they like to meet new people as compared to 71% who were not practising rajyoga and 19% of nonrajyogis as compared to 4% of the rajyogis reported little or not at all to that they like to meet new people.

90% of the Rajyogis reported to feel that being at peace and philosophising by themselves is more important for their own well being as compared to 71% who were not practising rajyoga and 19% of non alyogis as omp red to 04% of the rajyogis reported little or not at all to feel that being at peace and philosophising by themselves is more important for their own well being.

So overall results show that individuals practising Rajyoga are more happy remaining in solitude as compared to non Rajyogi.

When all these three factors are taken into consideration which all are significant factors overall results again show the presence of gerotranscendence more amongst the rajyogis as compared to that of non rajyogis.

LIFE SATISFACTION SCALE

93% of the rajyogis reported that they don't suffer from depression or that they are satisfied with their life as compared to 68% of nonrajyogis and 31% of the nonrajyogis felt that they feel depressed and not satisfied with their lives compared to 7% of the rajyogis meaning thereby that rajyogis feel contentment in life. DISCUSSION: Tornstam defined gerotranscendence as "a shift in the meta-perspective from material and rational vision to a more cosmic and transcendent one, normally followed by increased life satisfaction.

According to Tornstam (1999) many elderly people look at their body with disgust, regarding it an indication of overall decline and conclude that both their mind and sense of self-worth have degraded in the same way as their body. The ego transcendent person however, is able to separate spiritual growth and development apart from physical deterioration. This ability to Separate physical and spiritual concern is thought to result in a new feeling of freedom which might result in finding the courage to be one's self, and to no longer fear to ignore both social roles and expected roles . The gerotranscendence person tends not to cling to outmoded ideals but defines self worth in new and unusual ways. This may result in discovering new facets of one's personality or discovering oneself in possession of new talents and abilities (Jerikson 1997 tornstam 1993). Gerotranscendent Individuals may also show an increase in time spent alone in meditation or contemplation. The other dimensional change experienced in gerotranscendence is concerned with an increased sense of interrelatedness with others. This means a gerotranscendence person will begin to have a greater need to view herself / himself as a social being. That is, a gerotranscendent person will re-evaluate the meaning behind the ties. She/he has established with his / her family, friends and other relationships. In other words the gerotranscendence person has a stronger sense of needing to feel part of the human race. This is thought to result in an increased feeling of connections with the past and future generations and decrease in the interest in the superfluous social interactions. A gerotranscendent individual therefore may become more open and responsive to other people while at the same time becoming more selective in their use of such openness . Tornstam states that gerotranscendence might be an intrinsic or natural result of normal living that may or may not involve a revisitation of the past. Tornstam regards gerotranscendence as the natural last phase in life that occurs if one lives long enough and attains the necessary and sufficient personal qualities to make a positive examination of one's past.

Tornstam (1989) argues Gerotranscendence is to be the product of the natural ageing process.

He Acknowledges that this process can be obstructed or accelerated :

CAN SPIRITUAL BELIEFS & SPIRITUAL PRACTICES

FACILITATE THE PHENOMENON OF GEROTRASCENDENCE?

Although the present study aims at finding the degree of gerotranscendence in two groups of elderly people one practising spirituality in the form of rajyoga meditation and other group not practising spirituality in the form of Rajyoga meditation, the results reveal that more degree of gerotranscendence and increased life satisfaction was seen in people who practice spirituality.

Impact of Spirituality on Life Course

Several research studies done on suphis and other people practising spirituality (Ahmadi-Suphi study, and Belgium social gerontologists study) reveals positive correlations between occurrence of phenomenon of gerotranscendence and their spiritual beliefs and practices contrary to the belief and explanation of Dr Lars Tornstam that gerotranscendence phenomenon is natural phenomenon which occurs at second half of life. We saw when people practise spirituality which has core features of cosmic transcendence and ego transcendence it enhances the degree of gerotranscendence. IS PHENOMENON OF GEROTRASCENDENCE UNIVERSAL?

Although some areas of research show some degree of gerotranscendence in some people and some degree of gerotranscendence seen in other groups of People Deep spiritual practices and spiritual revelations practised by rajyogis since several years shows us that gerotranscendence is a universal phenomenon. All these 100 easy rajyogis who are practising this meditation for several years have similar kind of spiritual –cosmic experiences which are irrespective of previous faiths and belonging to different religions and irrespective of their place, environment and language. What ultimately they say is: IT IS ALREADY THERE YOU HAVE TO AWAKEN...THE SELF. WHAT IS INDIRECT MESSAGE OF DR LARS TORNSTAM TO THE AGEING POPULATION?

It has been estimated that by 2030 the world's elderly population will be 30%. The scenario will be entirely different amongst all the adversities That in today's elderly population is facing is lack of inner strength & Wisdom of living. If all the features of gerotranscendence are allowed to be experienced in an individual the end result will be life satisfaction . & if these transcending experiences are enhanced and able to create a beautiful environment..and this will become a powerful tool for wisdom of healthy ageing which will cross all the barriers of language, religion, nations, caste, creed etc .Ultimate message is spirituality for ageing gracefully.

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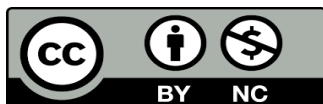
THIS RESEARCH PAPER IS DEDICATED TO ALL THE DISTINGUISHED BK ELDERLY POPULATION PRACTISING SPIRITUALITY IN THE FORM OF EASY RAJYOGA ACROSS 100 COUNTRIES TO SET AN EXAMPLE FOR HEALTHY AGEING AND BY THEIR VIRTUE OF THEIR SPIRITUALITY ABLE TO BRING SMILE HOPE AND DIGNITY AND SUPPORT TO AGEING POPULATION OF TOMORROW'S WORLD.

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Impact of Spirituality On Life Course

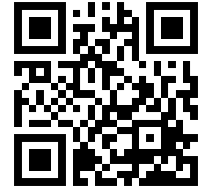
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Collaborative Policing Model: Strategy for Maintaining Community Security and Order in Disaster Situations



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ABSTRACT: The emergence of new symptoms in disaster situations prioritizes a collaboration-based approach to maintaining community order. All systems face the difficulty of human vulnerability when confronted with catastrophic occurrences such as disasters (Alexander 2005; Cutter 2005). In this situation, the police are vulnerable to becoming victims, creating limitations in the services provided to the community. These limitations need to be anticipated through collaboration with various parties since the disaster, and normal situations differ. Therefore, an adaptive collaboration model is required to generate maximum output for the phenomena that emerged after the disaster. This research will discuss a police collaboration model for the maintenance of Community Security and Order in the Disaster Collaborative Policing Model. Meanwhile, the focus is on the collaboration carried out by the police and non-state institutions. A qualitative method was used in the form of in-depth interviews with the police, collaboration partners from non-state institutions, and experts and academics engaged in disaster management. The results formulate essential elements by considering internal and external factors from the police organization. These include community conditions and threats in the form of rumors that affect community support for the police collaboration program.

KEYWORDS: Community Security and Order, Disaster, Police Strategy, Collaboration

INTRODUCTION

Disaster has a negative impact on human life, and several research shows the effect on the emergence of Community Security and Order disturbances. According to Yik Koon (2008:1), situations of natural disasters trigger the worst human behavior, such as criminal. There were many reports of taking advantage of crises without considering the pains of others. This research was conducted after the Tsunami that hit the Asian region in December 2004. Furthermore, Susmita (2010:6) found increased crime in disaster situations. In the research conducted in India, property crime increased in both medium and large-level disasters.

Research in criminology has described the relevance of criminological theories to the emergence of behavior in disaster situations. For example, routine activity theory states that a crime may arise when three factors, namely motivated perpetrators, appropriate targets, and lack of supervision, are present in the same time and space. Cohen and Felson's (1979) theory assumes that the opportunity to commit a crime can result in involvement in a criminal action. Cromwell et al. (1995) illustrate the relevance of criminal behavior. As quoted from the book Frailing & Harper, Cromwell identified some criminal cases during Andrew Hurricane in the Bahamas and Florida in 1992. Research linking the theory of routine activities with disasters showed that the number of crimes increased, most of which were committed by teenagers. This is because the teenagers had much free time following the destroyed of schools. Meanwhile, security and surveillance are not optimally conducted because most police officers are preoccupied with finding and rescuing victims (Frailing & Harper, 2017:73).

The police are government officials with an essential role in times of disaster. According to Fugate (2013:101) in Adam & Anderson (2019), law enforcement officers have two critical roles in responding to a disaster. These include providing community safety and security and being first responders during times of crisis (Adams & Anderson, 2019:27). The role of the police can be divided into three phases before, during, and after the disaster. Each phase includes several activities of prevention, mitigation, preparedness, emergency response, rehabilitation, and reconstruction. In the emergency and post-disaster response phase, the

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police are tasked with maintaining and restoring security and order. These include preventing the widespread impact on social security, such as the emergence of crime and social conflict (Adams & Anderson, 1992: 31).

In a disaster, the police are expected to collaborate with various partners to maintain Community Security and Order. This is because many obstacles and limitations can hinder services in maintaining social order. The police need to form collaborations with various parties to achieve optimal results in efforts to maintain Community Security and Order in crises. As explained by Schrage in Aggranof & McGuire (2003:4), collaboration is a relationship created as a solution in conditions of limitations. Besides the limitations and shortcomings, it is essential because each institution has different functions, capacities, and duty areas. These differences could hamper efforts to maintain security and social order when carried out individually.

The police have collaborated with various partners, government institutions, and community-based institutions and organizations. The mechanisms have been developed through several policies in a formal context involving government institutions. In disaster management, the central government plays a central role and requires assistance in many other aspects, such as economic and socio-psychology, which cannot be fully supported in disasters. This assistance can be obtained through collaboration with non-government partners, such as the mass media, universities, foundations/institutions, corporations, and the community. This also applies in the context of maintaining social order during the disaster.

Collaboration between the police and non-government partners can effectively maintain Community Security and Order. As stated by Waugh Jr & Streib (2006:133), the mobilization of non-governmental organizations such as community-based organizations and the presence of individual volunteers can make the situation better. Furthermore, the involvement of nongovernmental actors could build community capacity to face the future. This is also reinforced by the Australian Disaster Resilience Handbook Collection (2020) that community engagement is a necessary process where stakeholders work to reduce disaster risk and increase collective resilience. According to Rolfhamre (2019), collaboration relies heavily on networks that are more informal or involve existing groups. Frailing (2016), in his writing entitled *Understanding Crime In Communities After Disaster: A Research Brief*, stated that all forms of community collaboration could play an essential role in assisting people affected by disaster to deal with short-term crises and rebuild lives in the long term.

The police collaboration mechanism with government institutions is well established because it is supported by formal policies with clear Standard Operating Procedures (SOPs). Conversely, the state may not always support the partnerships between police and Nongovernmental organizations. The social phenomena during disasters that have quite an effect on collaboration between the police and their partners have not been considered.

METHOD

This research created a collaboration model with non-government partners that focuses on two aspects, namely governance and collaboration outcomes. The elements in collaboration were used as indicators in formulating theories oriented to the maintenance of security and social order or control in disaster situations. The data collected on the police collaboration mechanism was conducted in a planned, regular, and systematic manner by observing various partnerships during natural and pandemic disasters. These findings were described based on data compiled from several sources, namely in-depth interviews with the police, partners from non-government circles, such as civil society, mass media, and social institutions, as well as academics working in the field of disaster and police science. Besides in-depth interviews, various secondary data collection techniques were used, including literature review, observation, and mass media monitoring, to determine the typical forms of social order disturbances.

RESULT & DISCUSSION

Even though the partnership is the key to developing community policing and a principle needed in this era, it is not always successfully implemented. Otwin Marenin (2016), a criminologist from Washington State University, in his journal *Collaborative Policing Police, Academics, Professionals, and Communities*, stated that the theory and practice of collaboration or partnership between the police and other stakeholders are difficult to apply. In response to the obstacles, this research created a collaboration model with non-government partners that focuses on governance and external aspects of the organization.

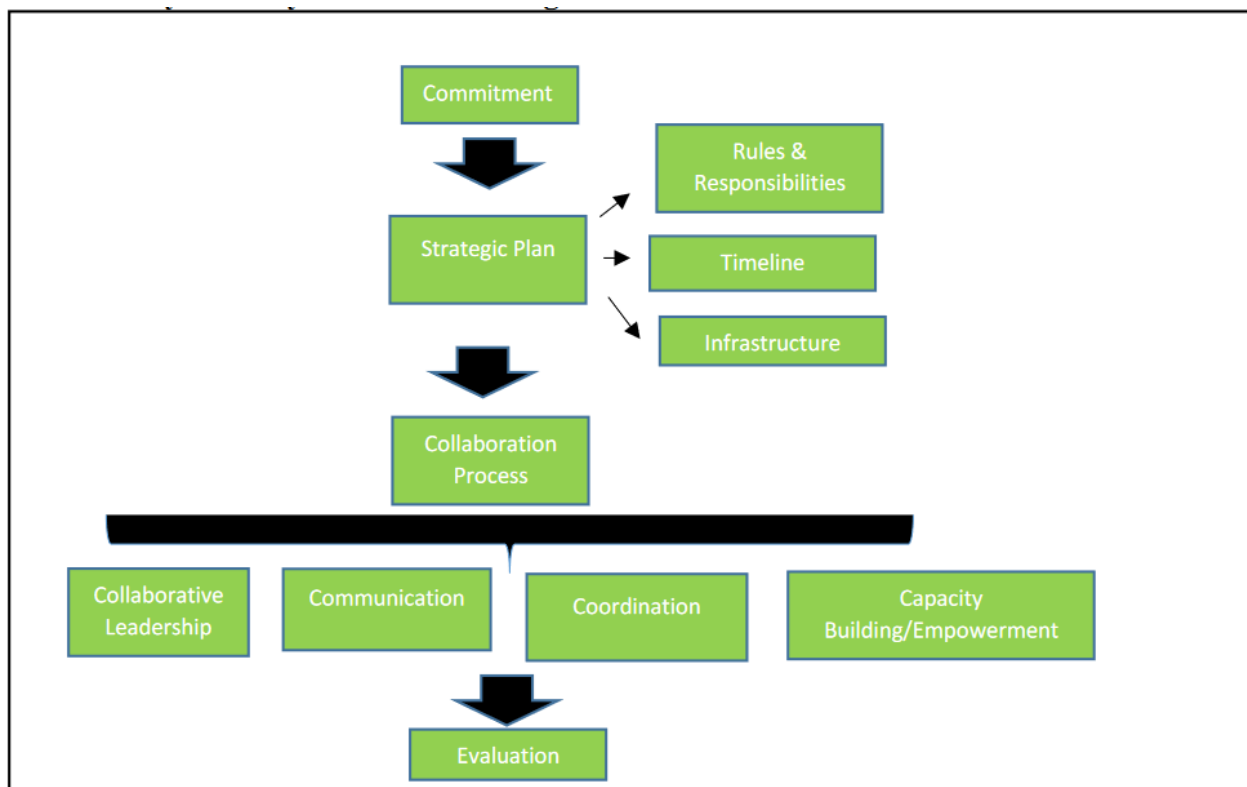
1. Governance in Collaboration During Disaster

In this collaboration model, four main elements from the governance aspect need to be used as the main points of the collaborative policing strategy for maintaining Community Security and Order during a disaster. These elements are initial commitment, a strategic plan that includes roles and responsibilities, period, and resources.

There are also elements of the collaboration process and evaluation as described in the following table:

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Table 1: Visualization of the Elaboration of Collaborative Components for Maintenance of Community Security and Order during a Disaster Based on the Collaborative Mechanism



Source: Data Processed

1.1 Commitment

Commitment concerns the initial relationship between partners before engaging in a collaboration program. This step needs attention because there are often obstacles where one of the collaboration parties does not fulfill the agreed-upon commitments at the beginning.

The success of the collaboration is motivated by the history and strong commitment of the actors. (Hartono, 2020). This ideal condition can be achieved when each party believes in their respective abilities and commitments. They also recognize that the other party has the credibility and commitment to perform the collaboration goals. Commitment is a condition where actors have the determination and consistency to remove obstacles and achieve a common goal. The success of the partnership can be jeopardized when initial commitment is lacking. Mayhill (2006: 49) explained that impediments to poor partnership implementation could occur due to a lack of organizational commitment and cultural change. However, commitment is difficult, especially for non-government partners like the community. This is because the community is not the party in charge of disaster management, hence the concept may change. Carroll Buracker and Associates Ltd (2007) concluded that citizens are unpaid agents expected to participate in the hectic activities of the government.

The difficulty in building a commitment to collaboration is due to the emergence of certain motives during a disaster. Nel and Righarts (2018:162) mentioned three concepts that show a causal relationship between natural disasters and conflict: motives, incentives, and opportunities.

Incentives and hidden political motives from interested parties will turn into conflict when there are opportunities (Wahid, 2018:38). Therefore, specific options are opened for commitment to undergo changes that disrupt the course of the collaboration. Subsequently, commitment can be strengthened through shared values and perceptions. It is expected to run without certain motives, including political motives.

1.2 Strategic Plan

Even though the strategic plan involves informal non-government parties, it contains elements of roles and responsibilities, deadlines, and provision of infrastructure and facilities in a written agreement. Therefore, the nature of collaboration is also proposed for binding, and the existence of a written agreement is conducted without overlapping roles. Due to the unpredictable nature of disasters, this design allows all aspects to function quickly and without additional adaptation. In this case, the research

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refers to the obstacles where the agents often experience different mindsets, which hampered collaboration. Furthermore, there are obstacles in the form of slow handling due to unpreparedness in carrying out the planned efforts.

The complexity of the problems after the disaster is the cause of the need for active roles and services of all institutions to maintain Community Security and Order. According to Russel & Linden (2002:173), the collaboration model needs a clear role from each partner. This model can be realized through a written agreement, and the division of roles and responsibilities also needs to be ensured to avoid conflicts.

Clarity in the participation of each party is also needed in collaboration. Reilly (2001) found that successful collaboration pays considerable attention to stakeholder involvement. However, when one party does not have the capacity, status, or resources to participate equally with other stakeholders, the collaborative governance process becomes vulnerable to manipulation by another powerful party (Ansell & Gash: 2008, 9).

1.3 Collaboration Process

1.3.1 Leadership

Leadership strategy is essential to collaboration success (Streib & Waugh, 2006). Research by Kapucu, Arsan, Demiroz (2010), and Punchand & Markham (2000) also analyzed that leadership is a significant factor in the success of collaborative emergency management.

In disaster management, the informants stated that the failure occurred because many leaders were not equipped to handle a crisis, especially a pandemic, which was the first time in Indonesia. Many leaders were from political parties that had not experienced crises before. According to informants from academics, leadership in Indonesia cannot manage the crisis quickly. This condition implies the need for a program to increase collaborative leadership capacity.

In the context of a disaster, a collaborative leader is needed with a dominant character or influence to move others in collaboration. The leader acts as an orchestrator or integrator where the egalitarian principle occurs. The character of a collaborative leader is also different from an ordinary leader, namely, those with unique characteristics such as open-mindedness, initiative, and can get into all members. Collaboration also requires people or personnel to harmonize the concept. In conclusion, a collaborator agent is needed to unite all partners from different backgrounds.

1.3.2 Coordination

Some natural disasters and pandemics have a very large impact and are accompanied by the emergence of quite complex problems. The complexity of the issues demonstrates numerous obstacles to maintaining social security and cannot be separated from the chaotic coordination between stakeholders.

Several informants emphasized the importance of coordination in disaster management efforts because this problem is seen as one of the obstacles. Besides causing casualties, weakness in coordination also impacts inequality in other aspects, including the distribution of aid and evacuation of victims.

Several elements to oversee Community Security and Order are rapid planning, priority sectors, establishing coordination patterns, and implementation of e-policing. Before coordinating, it is necessary to make a plan, including time and agenda. This is important for effective and efficient coordination. Setting a time or timeline is also essential to direct activities according to the available time. However, disaster situations will be different from normal situations, hence collaboration agents should also adapt to conditions that occur quickly.

This research proposed a priority scale to maintain Community Security and Order in a disaster to overcome the coordination problems. The coordination pattern is vital for all leaders at various levels to achieve the desired goals. This action can be started by determining the concise and targeted coordination flow.

The existence of coordination barriers also reminds the importance of implementing ePolicing. This system can provide public services more quickly, precisely, accurately, transparently, and accountably. The many challenges also demand the ability of the police to create a strong e-policing mechanism and accommodate social security needs.

1.3.3 Communication

Disturbances in the security and social order through collaborative policing can be prevented by implementing the communication principle. The lack of communication has affected the success rate of policy implementation and collaborative programs. This condition can also produce a narrow perception of the duties and functions of each agent when dealing with disaster conditions. Therefore, communication points are also an element emphasized in this collaboration model. In practice, communication between stakeholders is not optimal, causing slow management. The lack of understanding is caused by the small opportunity to hold joint exercises, improve relationships with each other, establish communication, and interact.

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One of the informants also added that to create the right communication, there needs to be an equal footing supported by suitable media means. In a disaster situation, the problem of communication media is often an obstacle. For example, everyone is forced to communicate online during a pandemic. This method can lead to dangerous misunderstandings in the course of the collaboration, following the potential to cause differences in the messages received.

Building communication also requires a unique mechanism obtained through consistent training of police officers and partners. Other supporting activities are needed, such as creating a joint post for parties to solve problems. To improve coordination and communication in the future, the police and their partners need to develop more drills and simulations for disaster management in an integrated cross-sectoral manner. The higher training frequency can strengthen coordination and communication, especially during panic and paralysis of facilities.

1.3.4 Capacity Building

In the Collaboration Value Statement module, the Waterloo Region Crime Prevention Council (WRCPC) stated that several elements indicate a collaboration program is running well. These include the increase in collective capacity to solve complex problems. According to the Indonesian Center for Management Studies website, capacity building increases the knowledge and skills, attitudes, and behavior of human resources. These activities can be applied at three levels, namely individuals, groups, and institutions or organizations. At the individual level, capacity building is carried out using continuous training in essential aspects, such as communication, self-motivation, and problem-solving skills.

In a disaster situation, collective capacity building can be conducted by the Indonesian police. This mission can be a solution when members become victims through the transfer of knowledge and expertise. Efforts to achieve community capacity building include socialization and preparedness training as well as aspects of disaster management implementation through early warning education programs to anticipate the impact.

Through this program, the community is expected to understand the best actions during disasters. Amid a lack of budget constraints, the police can still prioritize socialization and training for the community in disaster-prone areas. Therefore, the potential faced can be better understood to train and assist the police in maintaining security and social order.

1.3.5 Evaluation

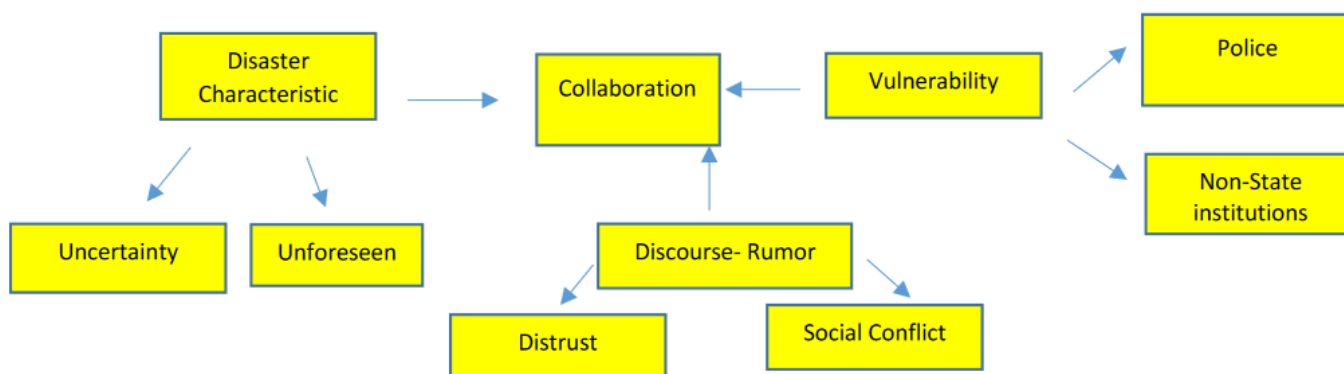
Evaluation is an objective and systematic assessment of an intervention. Winer & Ray (1994:14) stated that collaborative partners need to design and test evaluations to determine success. In collaboration, evaluation is essential to evaluate the effectiveness of the program. It is also conducted to respond to the obstacles and expected results.

The implementation of the duties of each member involved in collaboration should be evaluated with a good scheme to obtain information on the actual conditions. Information on evaluation results should be followed up by relevant parties or the community following the recommendations. Based on the existing evaluation, it is possible to change other elements when discrepancies are found. This step can also solve the failure resulting from certain aspects, such as communication and coordination.

2. The Effect of External Conditions on the Implementation of Collaboration

The success of the collaboration can be determined by technical and non-technical aspects originating from external conditions. This research identified several external elements that also affected the course of collaboration during a disaster. It can be described as follows:

Table 2: Visualization of the Collaborative Components of Maintenance of Community Security and Order During Disasters Based on Collaboration Outcomes



Source: Data Processed

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2.1 Disaster Characteristic

Disaster is characterized by unforeseen events and appears beyond expectations to create an uncertain situation. Meteorology, Climatology, and Geophysics Agency continue to monitor and study disasters to prevent casualties, but science and technology are insufficient to predict the situation. Therefore, the community needs to understand the enormous space of uncertainty. Many examples can illustrate this uncertainty phenomenon, including the aftershocks of the Palu tsunami, in Central Sulawesi in September 2018. The Meteorology, Climatology, and Geophysics Agency had issued an official statement that the tsunami early warning had ended. However, a giant wave appeared after the first incident, and this condition caused many casualties because the situation was considered safe.

Besides natural disasters, the ever-changing situation in pandemics should also be addressed with policy changes, such as the application of a restriction policy. To respond to the increasingly favorable case conditions, the government, through Government Regulation No. 21 of 2020, imposed a policy of Large-Scale Social Restrictions (PSBB) in the early days. This policy was set on March 31, 2020, and after the issuance, one-by-one follow-up policies emerged, such as the Minister of Health No. 9 of 2020 concerning Guidelines for Large-Scale Social Restrictions (PSBB). It regulates restrictions on activities in schools and workplaces, religious activities, and activities in public places/facilities.

Change, risk, and uncertainty are three essential interrelated components that need to be managed (Green 2003 in Amendola, 2004:1). Amendola (2004:59) stated that uncertainty about future changes and social disturbances during disasters indicate risk cannot only be seen as a national problem. This requires additional treatment, and panic is not an appropriate response to the condition. Therefore, effective modeling is needed in the preparedness and mitigation phase.

In this sudden and uncertain situation, rapid adjustments are needed in all aspects, including governance and implementation of collaboration. In this case, it is essential to have a Standard Operational Procedure (SOP) that can remain valid under any conditions, including disaster situations. This system is applicable on a legal basis and can continue to function amidst changes.

Policies and operations should be adaptable and flexible to address the features of sudden disasters in the context of law enforcement. However, the Indonesian police need to modify the scheme by making quick personnel shifts to avoid interfering with routine operations. These factors require anticipation through appropriate managerial management skills.

Flexibility also needs to be applied in other non-governmental organizations that act as partners in anticipating sudden and uncertain situations. Furthermore, partners should be able to adapt quickly to changes in disaster situations. This is achieved by conducting regular management exercises. The activity was also carried out in Japan, where the apparatus and civil society were involved in increasing awareness and ability. Therefore, a disaster culture is formed in the Japanese people. The existence of a disaster culture embedded in the community can assist the police in overcoming security and disturbances.

2.2. The Influence of Discourse in the Form of Rumors in the Maintenance of Community Security and Order

In an essay entitled "The Growth of a Market of Fear," Furedi (2007:508) quoted by Frailing and Harper (2017:40), fear and anxiety affect the deliberation process among members. This shows that rumors can interfere with the relationship between all collaboration agents because of the anxiety and fear formed from the discourse. The public can accept rumors through messages distributed by the mass media. As stated by Rodriguez (2007), the media plays a role in perpetuating false information in disaster situations (Rodriguez et al. 2007 in Frailing & Harper:42).

In the current situation, the information produced is very dynamic, constantly evolving, and changing. According to the informants, this can lead to social psychological conditions that are unstable and inconsistent. The situation is exacerbated because some people cannot sort out the wrong or correct information. This creates a social upheaval that can lead to distrust and rebellion from the community. The real condition triggers the emergence of social security disturbance instead of making the community a collaborative partner for maintaining security and order.

As occurred in the early pandemic, there was distrust in the existence of the COVID-19 virus. Many people still look down on vaccines and reject the government's vaccine program due to the many confusing reports regarding the two issues. Rumors cannot be ignored and have become a real threat, impacting the emergence of natural disturbances. The looting in disaster areas and the negative stigma on COVID-19 victims that led to resistance actions are some of the impacts of rumors.

However, another informant stated that rumors are not always negative. Sometimes, they should be used by turning into warnings and anticipated immediately. In the pandemic disaster, rumors of a delta variant have been circulating for a long time. The authorities should be able to respond to this information by following up with anticipation of suppressing the virus.

Besides provoking social unrest, rumors can also affect public participation in collaborative efforts with the police. This is because it affects the public perception of the police, which decreases the level of trust. Low trust can reduce the public's interest

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in participating in collaborative programs. These possibilities should be anticipated by continuously increasing public trust through their performance.

In the collaborative disaster policing model, a step in preparing communication management is needed by involving various agents to ward off rumors. In Japan, the police and stakeholders have a unique system that works automatically. With this system, all news immediately leads to positive content and avoids provocative content triggering upheaval in society. Besides countering rumors, the police should also identify and build practical communication skills with their partners.

2.3 Vulnerability

The disaster also creates vulnerabilities that can hinder partnerships. The Population Reference Bureau's website, defined vulnerability as the characteristics of a person or group and situations affecting their capacity to anticipate, cope with, and recover from the effects of natural disasters. Mustafa (as quoted from Mcentire, 2011: 3) argued that vulnerability is a state of powerlessness that makes a community powerless to withstand the debilitating effects of disasters or natural hazards.

Individuals are vulnerable to disaster for various reasons (Cannon, cited in Green, 2004: 323). The elements of vulnerability can consist of a decrease or lack of physical conditions, the physical environment, human resources, knowledge, and economic well-being. These elements form vulnerable groups, including children, the poor, the disabled, pregnant and lactating mothers, the elderly, the marginalized, and certain minority groups. Mcentire (2011:301) exemplified that the elderly may have a sufficient understanding of disaster based on previous experience. However, their weak health can adversely affect their ability to protect themselves or respond effectively. The children may be more physically able to meet their needs and may be included in the vulnerable group due to the failure to understand the required steps. Besides the age factor, gender is also included in another factor.

The characteristics of this vulnerability have entirely changed during the pandemic. Therefore, not all vulnerable people, such as children, people with disabilities, or the elderly, are labeled as vulnerable. This situation creates an extreme condition where everyone can be susceptible regardless of gender or age. Vulnerability can also affect police personnel and their partners, which impacts the course of the collaboration. During the pandemic, the ability of police members has become less than optimal because they were exposed to the virus (Siregar: 2020). In this context, the salient element of vulnerability concerns the decline or lack of physical condition. This was also shown in the interviews with the police chiefs, who admitted that many of their personnel were exposed to the virus. The decline in physical condition occurred among the community members who are partners with the police.

Furthermore, vulnerability concerns aspects of human resources (HR). Natural and pandemic disasters also cause HR weaknesses, including a psychological vulnerability that can attack members of the police and their partners. These conditions can inevitably bring a sense of stress, and a more significant burden of responsibility can lead to multiple stress levels. Gregor (2005) showed that disaster significantly affects some people who have lost family and friends, homes, and property. Similarly, they will lose meaning in life and experience uncertainty due to a loss of future orientation and personal security. Some people can easily overcome this condition, but the emotional impact can last longer in others because of different influences. Emotional disorders' symptoms can potentially affect the ability to stay organized. The late response can cause functional disturbances, affecting the quality of life (Retnowati, 2012). This will also affect the collaborative maintenance of Community Security and Order. The community will focus on efforts to save themselves instead of being involved in a collaborative program.

This vulnerability factor is a challenge in developing a future collaboration plan for the police and their partners. It prepares new patterns to anticipate the possibility of police personnel becoming vulnerable but paying attention to community vulnerability patterns. Efforts to predict vulnerability can also be carried out through identification. These include maps and identifying the factors causing disaster risk as the primary vulnerability factor. Collaboration with academics is crucial to reduce the number of vulnerabilities to achieve the desired goals.

CONCLUSION

Creating Community Security and Order are part of social control efforts. Bruce J. Cohen (in Setiadi, 2011:252) defined social control as the method used to create harmony with the prevailing norms or rules, and one of the strategies of the Indonesian police is collaboration.

In the context of the police, collaboration is a principle of community policing (Chrysnanda, 2020:20). The police have applied the concept of community policing in Japan and the United States, which Indonesia later adopted. To optimize the implementation, the collaboration mechanism between the police and non-state institutions should be supported by established governance and attention to social phenomena. These two components should be noted because collaboration can be a mainstay in maintaining security and social order. The Disaster Collaborative Policing Model aims to synergize the potential and resources

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between the police and non-government institutions in fostering, preventing, and taking action against behavior leading to disturbances in public order.

This model contains two aspects, namely governance and social phenomena. For the governance aspect, 7 elements are considered. The first is the strong commitment between each partner, while the second is a clear and detailed division of tasks and responsibilities of each party. The third is the existence of collaborative leaders; other elements are participation, coordination, communication, and capacity building to improve the collective quality of the partnering parties. The last element is a practical evaluation for measuring the quality of the collaboration to be followed up by the relevant parties.

In the collaboration model, it is also necessary to pay attention to external aspects outside the organizational context. This research emphasizes three external aspects, including the organic characteristics of disaster in the form of uncertainty and the sudden nature, discourse in the form of rumors affecting public trust and support for collaborative programs, and the risk of vulnerability happening to members of the police and their partners.

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Harmonization of Program on Awards and Incentives for Service Excellence (PRAISE) Implementation: Teachers' Perception Toward Gawad SAGWAN



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ABSTRACT: This study aimed to develop deeper understanding on the perception of ten (10) selected junior high school teachers of Aplaya National High School in the Division of Santa Rosa City, Laguna, Philippines toward Gawad SAGWAN as an Institutionalized Program on Awards and Incentives for Service Excellence (PRAISE) Implementation. It posits the significance of awards, incentives, and recognition to encourage creativity, innovativeness, efficiency, integrity, and productivity in the public service by recognizing and rewarding officials and employees, individually or in groups for their suggestions, inventions, superior accomplishments, and other personal efforts which contribute to the efficiency, economy, or other improvements in government operations, or for other extraordinary acts or services in the public interest. Specifically, it aimed to address the following: (1) What are the participants' perceptions in terms of awards and recognition in Gawad SAGWAN? (2) How do the participants perceive the challenges and demands of an award and recognition recipient in Gawad SAGWAN? The study employed the Psychological Phenomenology of Creswell (2017). The verbatim transcriptions revealed four (4) themes. Among the teachers' perceptions that surfaced included knowing oneself, and knowing teachers. The participating teachers perceived the challenges and demands as award and recognition recipients in Gawad SAGWAN through exemplary performance, accountability, and dedication to work. The findings indicate that the proposed Gawad SAGWAN is well-designed and tailored fit to the needs of teachers and administrators of Aplaya National High School in the Department of Education in support of the Civil Service Commission's (CSC) guiding principle and policy that every agency shall establish its employee incentive awards system-PRAISE.

KEYWORDS: awards and incentives, service excellence, Gawad SAGWAN

INTRODUCTION

Fundamentally, the provision of rewards, incentives, and recognition motivates and inspires teachers to better their craft, which is critical in the delivery of quality service to stakeholders, resulting in a brand of good service. Zingheim and Schuster (2000) define rewards as "the thing that increases the frequency of an employee action". This definition leads toward a clear outcome of rewards and recognition: to improve performance. Further, it shows that non-monetary appreciation can be very motivating, helping to build feelings of confidence and satisfaction in employees. In the United States and Australia, recognition is a very rewarding experience for an excellent classroom teacher and his or her students. Recognition for teachers builds off of some of the well-known extrinsic and intrinsic motivational theories. It offers hope for meaningful recognition to the other teachers working to improve student-learning outcomes. Similarly, it brings pride and support from the teacher's students, administration, governing board, and the general public (Andrews, 2011). As educators, Juravich (2021) claimed that recognition for our hard work and dedication is critically important as it fosters continued engagement and validation. Teacher recognition matters as it supports, validates, and encourages them to continue doing what they do best engaging and enriching students' lives.

In their Goal Setting Theory, Locke and Latham (1990) argued that school-based performance award systems improve both teachers' understanding of the goals and their commitment to them. The more a teacher believes that working hard will pay off in attaining goals, the more motivated he or she will be to put up the effort. Additionally, Garcia (2004) emphasized that rewards and incentives benefit employers from increased efficiency, sales, and productivity of the employees. Thus, both employers and employees gain from a positive and productive work environment.

Great teachers deserve great rewards, and nothing is more effective than praise and recognition in the form of a national teacher award. Many organizations and companies around the United States offer such commendations because they recognize the value of excellent educators. With a little time and effort, your multi-talented, innovative staff can be award-winning (Bafile,

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2000). Furthermore, Movsessian (2018) postulated the importance of teacher praise and the impact such recognition can have on teacher commitment and the overall culture of the school. Teachers desire recognition for their actions including advancement in student performance, ability to build relationships, and improvements to the functions of the school.

Meanwhile, in the Philippines, Education Secretary Leonor Magtolis Briones underscored the importance of recognizing the efforts and sacrifices of educators during the Global Teacher Prize Ambassadors' Forum: "Teacher Excellence – A Closer Look at the Global Teacher Prize," (DepEd Press Release 2019). Speaking before the participants from the DepEd Central, Regional, and Schools Division offices, and schools, Briones talked about their chances of winning in both international and local competitions like the Global Teacher Prize (GTP) and Metrobank Foundation. GTP underlines the importance of educators and the fact that, throughout the world, their efforts deserve to be recognized and celebrated. It also seeks to acknowledge the impact of the best teachers – not only on their students but also on their communities.

In addition, to recognize the laudable efforts and outstanding accomplishments of teaching, teaching-related, non-teaching personnel, and 3rd level officials, the Department of Education established the Program on Awards and Incentives for Service Excellence (PRAISE) (DepEd Order No. 9, s. 2002). It is in adherence to the provisions under Memorandum Circular No. 01, s. 2001 issued by the Civil Service Commission (CSC) PRAISE Program. Similarly, it also recognizes the exemplary performance of the Schools and Schools Division Offices.

People are influenced by a multitude way of important aspects of organizational performance. They implement and envision the strategies of the organization (Ajila et al. 2017). Rewarding is one of the main organizations policies that can increase the performance of staff and increase the outputs of the organization. In so doing, implementing the strategy competencies is required. These competencies are mostly a role of the knowledge, skills, and experience of individual investment. If the organization care for its employees as an important talent, it has to provide awards and incentives for the exemplary service they rendered.

Moreover, Cromer (2003) posited that employees who receive recognition for their work accomplishments tend to have increased morale and positive workplace attitudes. Employee recognition is an incentive employers utilize to offer feedback and encouragement to employees. Such includes verbal praise, award ceremonies, and public announcements for a job well done. Workplace recognition rewards occur frequently such as at the end of the day, week, or the conclusion of the month.

Understanding the effects of school-based performance award programs on school and teacher performance is particularly important in light of past research on individual performance (or "merit") pay plans for teachers (Hatry, Greiner, and Ashford, 1994). Merit pay plans tend to create a climate of professional collaboration which are very essential in establishing the best schools. Accordingly, Johnson (2015) stated that non-monetary incentives reward employee performance through perks and opportunities. These rewards include flexible work hours and training opportunities. The rewards and incentives are valuable to an employee because they allow workers to learn new skills and pursue advancement opportunities.

Utilizing an employee incentive program is considered essential and paves the way in bringing benefits to the organization. Millar et al (1995) espoused that incentive programs provide employees a reason to stay focused and productive. Likewise, it serves as an opportunity for the company to show their employees that they care and acknowledge their achievements and happiness. Incentive programs are a terrific way to encourage productivity among employees, as it helps them keep track of the goals they're working towards. While company loyalty is not something you can buy from your employees, incentives for consistently good work and productivity go a long way to help secure their dedication and commitment.

Making excellent teaching visible, promoting its reputation, and providing incentives for outstanding academics is a viable strategy for highlighting the central role of teaching and learning (Palmer & Collins, 2006). Providing an effective system of incentives, recognition, and rewards plays a crucial role in encouraging teachers to live up to the standards of their profession. Corollary to this, Roberts (2005) asserted that a strategic reward system creates a balanced offering to employees. It must consist of at least four areas of reward; appreciation, recognition, benefit, and compensation. Motivating employees is very important. Organizations must focus on defining the reward system to institute among the employees a clear understanding of the connection between performance and reward.

Consequently, Scott (2019) concurred that employees and employers both benefit from workplace rewards and incentives. Employee morale, job happiness, and involvement in organizational functions increased when they are rewarded for exceptional performance and productivity. Correspondingly, De Leon (1997) pointed out that many employers offer rewards and incentives through employee assistance programs. These programs help workers maintain a balance between work and home life by supporting their mental and physical well-being so they can remain focused on their jobs while they are at work.

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Teachers' awards and incentives undeniably could help deliver quality services to stakeholders since it perpetuates a collective culture of accountability, responsibility, and excellence. Hence, this study endeavored Gawad SAGWAN as the Program on Awards and Incentives for Service Excellence (PRAISE) of Aplaya National High School.

METHODS

Research Design

The study specifically utilized Creswell's (2017) Psychological Phenomenology. This research design involved in-depth interviews of junior high school teachers to determine their perceived challenges and demands as award and recognition recipients in Gawad SAGWAN as a phenomenon.

Participants of the Study

The researcher selected ten (10) junior high school teachers of Aplaya National High School in Santa Rosa City, Laguna, the Philippines who were awardees and nominees of the Gawad SAGWAN. This number of participants was recommended by Polkinghorne (1989) as cited in Creswell (2017) suggesting that researchers need to interview 5 to 25 individuals who have all experienced the phenomenon. Specifically, they were teachers handling different subjects, who were chosen based on the following inclusion criteria: 1) minimum teaching experience of three years; 2) have no negative records as to mishandling responsibilities in their respective learning areas or departments, and 3) those who signed the waiver/consent of participation. Similarly, the researcher utilized purposive or judgmental sampling which intentionally selects the individuals and sites for study because they could purposefully inform an understanding of the research problem and central phenomenon in the study thus providing quality assurance (Huberman & Miles) as cited in Creswell (2017).

Data Analysis

The data were analyzed using the phenomenological framework of Moustakas (1994) as detailed in Creswell (2017). First, the researchers went through bracketing, the first step to consider, in which they set aside all preconceived thoughts and experiences they had to best understand the experiences of the participating junior high school teachers of Aplaya National High School. After conducting in-depth interviews, the researchers performed horizontalization, by which they built data considering the central questions as well as probing questions in the interview guide. This was done by going through the data, i.e., interview transcriptions, highlighting significant statements which are sentences or quotes that provided an understanding of how the participants perceived the challenges and demands as an award and recognition recipient in Gawad SAGWAN. Then, the researchers developed clusters of meaning from these significant statements into themes which were used to write a textural description of the participants' lived experiences. They also used these significant statements to write a description, called imaginative variation or structural description, of the context or setting that influences how the participants experienced the phenomenon under study. From the structural and textural descriptions, the researchers wrote the composite description that presents the "essence" of facing the challenges and demands of an award and recognition recipient in Gawad SAGWAN.

Verification and validation were used to establish the research rigor of this study in terms of its qualitative feature (Meadows & Morse, 2001). The researchers obtained verification by conducting in-depth interviews, adhering to the phenomenological method of inquiry, suspending previous experiences, keeping research notes and journals, utilizing a sufficient sample of participants (Polkinghorne, 1989 as cited by Creswell, 2017), and conducting in-depth interviews until data were refined. Validation was achieved through data collection, and data analysis using Moustakas' approach.

RESULTS AND DISCUSSION

This qualitative phenomenological study examined the perception of junior high school teachers of Aplaya National High School as regards the challenges and demands of an award and recognition recipient in Gawad SAGWAN.

1) What are the participant's perceptions of award and recognition in Gawad SAGWAN?

Theme 1: Knowing Oneself. As revealed by the participants, this theme focuses on knowing one's self as the most prevalent and reoccurring issue from the perspective of teachers in terms of awards and recognition in GAWAD SAGWAN. Some respondents said it was critical to understand them to be effective leaders. One participant stated that regardless of the environment or task, they retain the same style of behavior (Morgan & Skitka, 2013). Likewise, they claimed that this upkeep allowed others to see what kind of leaders they are as expressed in the following statements:

This award-giving body makes me feel appreciated and gives me the confidence to do my work with enthusiasm. It has provided another source of motivation for me to strive for excellence in this noble vocation (P2).

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When I heard the Gawad SAGWAN, my first reaction was to recognize and acknowledge the efforts and accomplishments of every deserving individual in the field, despite of the challenges that we face (P5).

The conclusions support the perspective of Hammer et al. (2010) affirming that the institutional reward system is one of the factors that influence teaching improvement efforts aside from intrinsic motivation, teaching consultation services, and a teaching-positive institutional climate for teacher improvement. Likewise, the concept of recognizing and rewarding excellent teaching on campus would suggest another potential benefit: the retention of exemplary instructors. One UK center investigated the impact of teaching awards (that included a financial reward) on their campus and found that (according to previous winners) the awards "widened opportunities" by allowing for publications and presentations and that they "increased self-esteem.

Theme 2: Knowing Teachers. The participants disclosed the relevance of prizes and recognition to improve the academic working environment by understanding and applying them effectively. Goodwin and Darley (2018), for example, asked participants to categorize their judgments about knowing the professors into statements: those that reference empirical beliefs, and those that reference social customs. It's critical to understand that teachers are professionals who deserve to be treated as such. It is therefore imperative to recognize both the strengths and weaknesses of teachers and counsel teachers in private when addressing negative aspects about the teacher and respect teachers in hopes that they will, in turn, respect him.

I can see that GAWAD SAGWAN aims to promote recognition of the efforts lent by all parts of the teaching process because I believe that one's success is dependent on the collaboration of many. (P7).

My desire to be involved in Gawad SAGWAN emanates from my drive and dedication to my chosen field of work as a teacher, which is to be a good educator. (P10).

The results presented above are coherent with Andrews (2011), suggesting that value has been found in providing recognition and awards programs for excellent teachers. Teachers receiving recognition and awards for their teaching have praised recognition programs as motivating them to continue high-level instruction. Teachers feel that acknowledging their talents and flaws and addressing their negative qualities promotes respect and a climate of trust in the institution. Similarly, Recognition most often serves to reward good work, as well as indicate to the students, faculty members, and administration that good teaching is important. Formal recognition also may contribute to meeting tenure requirements, post-tenure requirements, or promotion for those, not in tenure-track faculty positions.

2) How do the participants perceive the challenges and demands of an award and recognition recipient in Gawad SAGWAN?

Theme 3: Exemplary Performance. As disclosed in this theme, the outstanding achievements of instructors, as well as the principals or school administrators are part and parcel of any institution or organization. Teachers, according to some participants, are the finest representation of interacting with students as their second parents at school, and they are active in the participatory instructional management and decision-making process, which allows the school to explore new ideas and approaches. As a result, teachers' relevant ideas are adapted and utilized as a part of the school's best practices. In addition, the culture of collaboration among school personnel is promoted by exemplifying the sense of oneness to their goals and objectives in the educative process through collaboration. Some participants stated that they sought and relied on teacher input because many of their teachers have extensive experience.

Awards and recognitions encourage and recognize exemplary performance by both teaching and non-teaching personnel and stakeholders who demonstrate teamwork and a culture of shared responsibility. As a result, it inspires them to do and give more for the good of the school community (P3).

Gawad SAGWAN acknowledges exemplary achievements of stakeholders while also operating a merit system that recognizes their efforts, deeds, dedication, and contributions for the the advancement of the school (P6).

Considering the findings of Hativa et al. (2001), who claimed that teachers attained excellence by employing a unique set of effective teaching dimensions and strategies. Similarly, they share a limited set of teaching aspects and approaches that allow them to broaden their perspective in the teaching and learning process, resulting in exemplary performance. Berliner (1994) mentioned that professionals have a unique experiences. Developing professionals learn from experience more than the rest of us in their fields. He also highlighted that competence grew autonomous from experience, although the latter is perhaps the most crucial need for the former. Likewise, it was noted that teachers had a passion for learning and excellence in terms of expectations

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for themselves and their students, the ability to reflect in a self-critical and natural way, a desire to interact and engage with people, and caring behavior towards people and their performance (McDowell 2004).

Theme 4: Accountability and Dedication to Work. This theme encompasses accountability and dedication to work by teachers and administrators in increasing their dedication to GAWAD SAGWAN in terms of leadership and management. Eisenfuhr (2011) postulated that accountability and dedication are processes of selecting from a variety of options to reach the desired goal. A hostile faculty and an indignant community will soon confront the principal or the unfair administrator. Teachers are as concerned with test scores, teacher salaries, parents, and budgets as they are with fairness, equality, justice, and democracy (Strike et al., 2005). One of the participants indicated as follows:

My eagerness and dedication to my work motivated me to carry out my duties and responsibilities as a teacher, and even in the absence of recognition or reward, my accountability to God and the people I serve keeps me doing what I should and must do (P1).

The teachers who were honored are all deserving, and the Gawad SAGWAN is much needed to boost their morale and dedication to their work (P4).

In support of these findings, Mart (2018) argued that passionate teachers are dedicated to student success. Commitment is a necessary component of effective teaching. Committed teachers are concerned with their student's development and struggle much with how to keep students learning. They foster curiosity and enthusiasm for learning. Teachers who are committed to their students acknowledge and strive to fulfill their responsibilities. Dedication to their work distinguishes committed teachers. Teachers that are involved in their work and committed to students and their learning play an important role in students' growth. Accountability, on the other hand, enables teachers to conduct themselves professionally in school (Balkar et al. 2021). Individuals feel responsible for their actions when there is accountability in the workplace, and they are more likely to perform their tasks well and efficiently. It could also increase employee commitment and happiness (Indeed Editorial team, 2021).

Essence. Taken collectively, the narratives of the participants' perceptions revealed two (2) theme clusters that answered the "what" of the phenomenon. The participants addressed the first central question "what are the participants' perceptions of award and recognition at GAWAD SAGWAN" and enumerated the various problems associated with the phenomenon. The problem of knowing yourself and knowing your teachers were presented, along with documentation related to the most common and recurring struggle. As Phalane (2011) also said, this necessitates a greater administrative function to provide advice and support to reach their aim or purpose. All of the participants agreed that validation requires constant growth on their part, but they also raised the issue of teachers' perceptions of awards and recognition. The remaining two theme clusters responding to the second central question on "how" the participants perceive the challenges and demands enumerated the various problems associated with the phenomenon, the most serious of which is dealing with the teachers' exemplary performance and dedication: and accountability. Positive techniques, such as providing support and encouragement, were also acknowledged as useful ways to deal with the scenario that caused the problem by the participants (Hoy and Walker 2016). The participants never indicated a difficulty related to a lack of authority, as identified in the study of Al-Ghefeilli et al. (2018).

CONCLUSION AND IMPLICATIONS

The general conclusion of this study is that all of the participants agreed that teachers' perceptions of rewards and recognition in school are a challenge. Despite the fact that they have shared accolades and praises, they still have difficulty handling their students. Additionally, the Gawad SAGWAN is well-designed and tailored fit to the needs of Aplaya National High School teachers and administrators in the Department of Education, in support of the Civil Service Commission's (CSC) guiding principle and policy that every agency shall establish its employee incentive awards system-PRAISE.

RECOMMENDATIONS

Awards and recognition are critical in creating an atmosphere or environment of acceptance and respect for teachers' unceasing efforts to succeed in their performance and contribute to the betterment of the school community. An awards ceremony shows participants that their efforts are valued. It conveys appreciation and gratitude for each teacher's hard work and notifies individuals that good work will be recognized. It shows others, such as the general public and other staff members, that they are aware of their exceptional accomplishments. Teachers are given the chance through Gawad SAGWAN to participate in collaborative efforts to develop themselves and empower the learning community through consistent best practices in the school.

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As a result, they must continue to bring out the best in themselves to boost their self-esteem and self-worth. Similarly, guidelines must be effectively communicated so that they are aware of the rewards and recognition program, and those who are interested must be allowed to participate. In terms of accountability, school leaders and administrators must establish an effective evaluation committee to ensure that deserving school personnel shall be recognized for their exemplary performance. For teachers to exemplify exceptional performance, accountability, and dedication to their profession, they must live up to the Department of Education's vision and mission which is part and parcel of teachers' mandate and from which awards and recognitions are simply one of its essential facets. Furthermore, teachers must commit to getting to know themselves as well as their peers to foster a collaborative culture that promotes the principles of integrity, responsibility, and accountability, as well as demonstrate the fortitude to withstand educational challenges among them and the school as a whole. This will surely pave the way for the establishment of school culture in which the collective prioritizes the welfare of the students and the school community. The importance of awards and recognition must serve as another venue and motivation for teachers, school leaders, and managers to improve their pedagogical knowledge and managerial prowess in engaging students effectively in the instructional process and their fellow staff respectively in the institution. Further, teachers should view the aforementioned program as a chance to showcase themselves as a form of self-discovery in which they must imbue themselves with the effort and determination to manifest exemplary performance in all dimensions of their duties and responsibilities as teachers. Future academics may conduct another study on the subject based on the demographics of the participants. They may do a follow-up study using other research methods to delve deeper into the program's ramifications and effect on educators' performance.

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Pap Smear Screening: Deterrents among the At-Risk Population in Trinidad



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ABSTRACT: Cervical cancer is a condition that affects many women globally. The WHO recommends Papanicolaou (Pap) smear screening, a method by which abnormal cervical cells can be detected and aid in preventing malignant progression. However, despite the availability of this test, uptake remains low among many Caribbean countries, including Trinidad.

Objective: A literature review on cervical cancer screening and barriers to getting tested in Trinidad.

Study Design: The study design chosen was a narrative literature review. This paper sought to assess available literature centered around reasons for lack of screening and how it may contribute to the current prevalence rates of cervical cancer.

Methods: Data was obtained from online articles via Google Scholar, Pubmed, ScienceDirect, and Scopus from 1987 to 2022. The focus was on publications detailing lifestyle and factors influencing Pap smear testing and follow-up.

Results: Results showed that personal understanding, accessibility, physician perception, and socioeconomic disadvantages can deter pap smear screening.

Conclusions: Addressing these issues and how they can influence screening uptake is key to increasing detection and decreasing cervical cancer deaths.

KEY WORDS: cervical cancer screening, pap smear, Trinidad, influencing factors, screening deterrents, Human Papilloma Virus

INTRODUCTION

Cervical cancer is a disease of global concern. In 2018, the WHO estimated that 311 000 women died from Cervical cancer¹. It is also the second leading cause of death among women due to cancer in the Caribbean and the second most common cancer within Trinidad². It has also been associated with high mortality rates³. Furthermore, the Ministry of Health of Trinidad cites Cervical Cancer as one of the most common cancers in women under 50 years of age⁴.

An understanding of this disease has developed with technological advances, and a cause is known, the Human Papilloma Virus (HPV). Even though contracting the virus is not always preventable, its progress to a malignant stage can be detected, and debilitating effects avoided with a screening test known as a Pap Smear.

Primary prevention starts with the HPV vaccine, which can be given at 9-12 years of age⁵. Additionally, according to the American College of Obstetrics and Gynaecologists, pap smears are recommended for any sexually active female aged 21 and over⁶. In 2001, the Pan American Health Organization (PAHO) developed a Caribbean Cervical Cancer Prevention and Control Project to increase testing effectiveness and improve population awareness of the disease².

Though screening programs have improved, for some countries, such as Trinidad, death rates remain high⁷. Over the past few years, cervical cancer mortality rates have declined in countries like the United States (less than five deaths per 100 000 women-years). This is compared to relatively higher rates still in Trinidad and Tobago of approximately ten deaths per 100 000 women-years⁸.

In trying to gain an understanding of the prevalence of cervical cancer within Trinidad, it was found that over a year from 2009 to 2010, there was only a 9% coverage of Pap smear tests being done for the at-risk group ages 25-49 years in Eastern Trinidad⁹. Furthermore, more than half of the women with abnormal tests in this study were lost to follow-up.

It can be appreciated that there is still uncertainty associated with medical treatment and tests in Trinidad. This apprehension is grounded in a mistrust of pharmaceutical medicine, invasive procedures, and a misperception of doctors and scientists. Addressing these concerns is vital in assessing screening hesitancy, influenced by many diverse factors.

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Many publications highlighted various possibilities for deterrents to screening. For example, Lurie et al. found that female patients felt more comfortable asking questions and expressing concerns to a female doctor and were more likely to follow through concerning their Pap Smears¹⁰. Soneji and Fukui found that urban residents had increased pap smear screening rates than rural residents. Follow-up was affected by a lack of laboratory services and timely generation of test results¹¹. A further consideration in developing countries is that there tends to be specific areas with a lower income level, educational attainment, and access to information and health care. These factors and their correlation are essential in understanding the broader scope behind a woman's decision and ability to be screened.

This study reviews available literature focusing on the factors influencing women in obtaining Pap smears. It aims to determine the deterrents for women within their environment that have led to reservations and lack of adherence. If these factors are better understood, such information can be used to increase the screening uptake and ultimately reduce the prevalence of cervical cancer.

METHODOLOGY

The study design used was that of a review of current, scientific literature from different online sources, revolving around cervical cancer and pap smear testing. Based on their verification and authenticity, articles were obtained from electronic databases including Google Scholar, PubMed, ScienceDirect, and Scopus. Different databases were chosen to ensure that relevant and diversified studies could be identified. The search criteria involved the retrieval of articles with the keywords and phrases: cervical cancer, the prevalence in Trinidad, pap smear testing, screening, knowledge of HPV, disadvantages, and health care, from a search that occurred from October 2020 to June 2022. The articles chosen were reviewed based on the inclusion and exclusion criteria set. The process involved reading through article abstracts for the pertinent phrases to establish relevance and utilizing the snowballing technique to obtain further linked articles. Once an article of relevance was found, other similar articles were ascertained using keywords from that article. After this, full-text articles were downloaded and compiled. The search resulted in a total of fifty-two (52) articles. They were then separated based on similarly related topics to facilitate data management, analysis, and discussion.

Inclusion criteria were full text, peer-reviewed articles regarding cervical cancer and screening, within Trinidad or other countries, from 1987 to 2022 and on women aged 11 to 65. Exclusion criteria were articles that were only abstracts or commentaries, non-English publications, and articles involving conditions not related to cervical cancer or secondary causes of cervical cancer.

Information from these articles involving the understanding of cervical cancer and deterrents to pap smear tests were pulled. The resources were separated into the most common themes socioeconomic determinants, health care facilities and service accessibility, perceptions and trust of physicians, and knowledge of disease or testing. Folders established culminated with twenty-five (25) articles, separated according to the particular focus.

RESULTS

The folders established resulted in twenty-five (25) articles grouped according to specific focal points. The data analysis strategy used was that of content analysis. Therefore, the finalized articles were analyzed to observe any correlations or comparisons noted by various authors or organizations.

A review of the literature led to the determination of four main themes, arising from the sub-folder categorization of the selected articles, that were associated with influencing pap smear screening. These categories included: the association between pap smear testing and level of understanding, the association between pap smear testing and accessibility, the association between pap smear testing and socioeconomic disadvantages, and the association between pap smear testing and patient-physician interaction.

DISCUSSION

The CDC views HPV as the most common sexually transmitted infection in the United States¹². Though cases of malignancy may have a slow onset, it is estimated that HPV will infect 75-80% of sexually active males and females in their lifetime¹³. Additionally, there are many different types of HPV. However, some types, such as Type 16, are considered high risk and are attributable to half of the invasive cervical cancer cases along with other risk factors such as being over the age of 30, multi-parous, or having a history of smoking as well as Oral contraceptive use¹⁴. Hence, there is a need to understand why, with the advancements in public health coupled with technology and accessible information, there is no greater incentive for women to want to pursue routine screening. Many factors surfaced as predictors of screening in this review. The most referenced were understanding the disease or screening process, accessibility to medical centers with reliable services, socioeconomic disadvantages such as geographic location and employment benefits, and patient-physician comfort and interaction quality.

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Pap Smear screening and Individual Understanding

In Trinidad, there exist some lack of knowledge regarding screening: how it is done and for what purpose. Grasping what the desired target population understands about screening helps to expose reasons for some deeply rooted reservations. The findings of this review gave an insight into Pap smear and cervical cancer knowledge within different age groups.

Stemming from the findings was the level of education within the target population. Modeste et al., found that 72% of Trinidad adolescent girls were unfamiliar with Pap smear screening¹⁵. The same study also compared the adolescent females studied and their parent's education level, finding that 48% of parents of Trinidadian adolescent girls had only completed a high school level of education, with even less obtaining a completed college degree¹⁵. Similarly, Smith et al., a Michigan focus group study, also found that a deterrent for some women was that they lacked an understanding of cervical cancer disease progression and frequently used terminology¹⁶.

Another contributing factor related to the theme of understanding is the influencing effect of family members. Ackerson et al., detailed that some women choosing to get tested (or not) was often due to influences imposed by family members such as mothers or grandmothers¹⁷. In earlier years, with less dissemination of information, some senior women may never have been taught about HPV and its link to cancer. This lack of understanding can result in reservations passed on from generation to generation. Despite the possibility, as mentioned earlier, Soneji and Fukui's cross-sectional study on Latin American Countries (LAC) found that a woman's knowledge of Pap smear screening increased with educational attainment and age, though plateauing at 31-35 years¹¹.

These associations, as mentioned above, show that a deterrent to testing can originate from one's level of understanding, what is gained individually, and what is taught by others. Hence, these factors are essential to address when trying to formulate change in behavior and decision-making among Trinidadian women. Having necessary education at the intrapersonal and interpersonal levels of society can influence personal choices and, more importantly, one's ability to instigate change. If this is done, more women may be moved to get themselves tested at the advised recommendations and would be able to pass on said practices to future generations.

Pap smear screening and accessibility

Another factor derived from this review was accessibility – to medical sites or testing. Four Regional Health Authorities currently exist within the island of Trinidad, with over fifty health care facilities providing medications and services accessible to the public free of charge. However, despite the Government's public health efforts to provide free pap smear testing for all women, physical obstacles remain.

Patients need to be able to access pap smear tests and get timely and reliable results. If abnormalities are seen on cytology, women may need repeat testing or referral to a specialist such as a Gynecologist or Gynecological Oncologist. Laboratory services and trained medical staff are essential to this process flow. If not well managed or there exists a lack of resources, the public health care systems can become overwhelmed by the number of tests to be done. This importance is emphasized by Murillo et al., who found that effective screening programs were limited by poor quality sampling and a shortage of trained technicians within the Caribbean and LACs¹⁸.

Women need to commute to the public health centers for testing. Depending on location, some may not have the means to travel far distances and decline to do so just for a 'screening' test. Lynch and Maharaj found that rural residents in Trinidad were less likely to be screened than urban residents⁹. Similarly, Woldetasdik et al's study in Ethiopia also found lower cervical cancer screening uptake in rural residences¹⁹. This reality is of concern considering the progressive nature of cervical cancer, where the benefits of early detection may be missed if screening is sought too late. If women cannot access the centers to get tested or have delayed results, cervical cancer cases will only continue to increase.

Pap smear screening and Socioeconomic disadvantages

Another area highlighted in various publications was socioeconomic disadvantages within the female population. As mentioned, there appears to be an urban-rural divide regarding pap smear screening. Furthermore, Lisle et al., found that women in rural areas in Trinidad were less likely to hold a college or university degree, and there was a tendency toward imbalance in urban-rural educational attainment there²⁰. Additionally, Martin et al., found that women from lower economic brackets had lower probabilities of screening for pap smears in most Caribbean islands². Breitung et al., also noted that women of a low socioeconomic status had a poor understanding of pap smear testing in their Texas-based review²¹. Education and social status can impact one's earning capacity. Due to this influence, some women may not have the resources to be screened or pursue secondary investigations if needed.

A higher socioeconomic status can be linked with employment; the better the income, the higher the status. The importance of this association can be seen in results from a web-based Japanese survey by Kaneko that found that working respondents were more likely to have undergone pap smears than those unemployed²². Also, the better the employment, the more likely it provides

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insurance or health coverage. Hence, individuals who hold partial or complete coverage insurance may be more likely to seek out medical care or be interested in doing so than those who do not. Ward et al., found that individuals without health insurance had lower cervical, breast, and colorectal cancer screening rates. The same study also observed that inadequate health insurance coverage was associated with less access to care and poorer cancer outcomes²³. Comparably, O'Malley et al., related having private insurance with screening adherence²⁴.

Consequently, women could afford more private specialists or primary care visits and follow-ups if they have the financial buffer of insurance and insurance plans. These women may also be more likely to seek out private care if they cannot make regular clinic hours, public facilities are too overcrowded, or test results are delayed, as they would have the means to do so.

Unfortunately many women in Trinidadian rural areas, whose source of income may be more from self-employed agricultural work, would not be privileged to insurance. Many females may not even be employed as the men are viewed as the financial caretakers for the family while women play a more housekeeper and caregiver role²⁵. This situation furthers their inability to secure health insurance for themselves and for testing. These women would, as a result, encounter deterrents to screening due to these socioeconomic disadvantages.

Pap smear screening and Health care provider impact

Articles reviewed also noted an association between physician and patient screening. Medical practitioner care and influence can start at an early age. However, Modeste et al., found that 50% of Trinidad adolescent females had never seen a Pediatrician before¹⁵. This is perhaps because parents often do not seek 'pediatric' care for children or adolescents in many Caribbean countries. The younger population is usually treated mainly by General Practitioners or Family Doctors. Hence, teens are not exposed as early as they should be to information provided by a specialist who would be trained to educate them on STDs or HPV specific to that age group. Such limited interaction can contribute to the lack of regard for screening or even HPV vaccination as adolescents age.

Moreover, the influence of medical providers is key to successful screening. Women who had a recent doctor's visit were more likely to do Pap smear screening²⁶. O'Malley et al., further emphasize this importance, as it was found that women who had long-standing relationships with their physicians had higher adherence rates for screening²⁴. This shows how healthy and efficient patient-physician interaction can lead to compliance with testing and the likelihood of follow-through.

Physician impact is further seen when considering male vs. female physicians, and the degree of influence each can have based solely on their gender. Lurie et al., found that women were more likely to undergo screening pap smears and mammograms if they saw a female physician rather than a male physician¹⁰. A cross-sectional study conducted by Almaro et al., also found that 87% of their participants preferred to see a female physician, with the preference being embarrassment or shame in front of a male practitioner²⁷.

There is often apprehension about discussing issues regarding sexual activity and female reproductive organs with a male physician, which is viewed as a topic to have with a woman. Efforts must be made to rid female patients' discomfort of being cared for by a male doctor for gynecological issues, such as stigmas, cultural barriers, and fear of being tested. Patient preference for a female provider can result in higher breast and cervical cancer screening rates by female physicians.²⁵ Hence, this can be a deterrent, especially in countries with a high ratio of male doctors in practice. Other concerns, such as women viewing the pap smear tests as extremely painful and unnecessarily invasive, also need to be addressed during visits to maintain compliance.

RECOMMENDATIONS

Pap smear screening needs to be on an upward trajectory to address the increasing rates of Cervical Cancer. A few recommendations arose from this review, many already being implemented worldwide and can have considerable benefits in countries such as Trinidad. Some measures directly tackle improving the efficiency of the publicly accessed health care centers. For example, once obtained at a local health center, pap smear samples are generally sent to larger laboratory providers, which may take several weeks to report due to the number of samples to be tested. However, having on-site lab services at the health centers (predominantly rural ones) would aid in expediting the turnaround time.

Also, many centers still use paper filing methods to keep track of patients' information. It has been shown that Electronic Medical Records, help to improve work flow by improving access to lab reports and providing alerts and reminders²⁸. If more medical institutions in Trinidad could become computerized with an online platform, it may be easier to create automatic reminders of patients' dates for re-screening and provide better record keeping of vast amounts of patient information.

Secondly, regarding accessibility, ways that have been found to tackle this were Telemedicine and Mobile medical units. The American Academy of Family Physicians defines Telemedicine as the practice of medicine using technology to deliver care at a distance²⁹. Handheld mobile devices are now more prevalent in society than ever before. Though persons may have geographical challenges, they can be reached by personal devices such as laptops, tablets, or cell phones. Investment in Telemedicine can have

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unlimited possibilities, as has been noted since the onset of the Covid-19 pandemic. Telemedicine can significantly change how health care and health-related information can be accessed³⁰. Though the procedure for screening is a physical one, awareness can be raised of cervical cancer and pap smear benefits through the mode of Telemedicine. A specialist can also use this to consult on cases to staff in rural areas.

Another venture for potential is that of home visits via mobile medical units. Greenwald et al., stated that community access to screening could be limited by costs, clinic hours, and distance³¹. Hence mobile units are a service that can be incorporated into both the public and private health sectors. Doctors can take healthcare a step further by following through with at-home visits. With these visits, patients can get advice and information on cervical cancer and even have pap smears done within the mobile units or in the comfort of their homes. Yu et al., support this, stating that mobile units help eliminate many logistic barriers to testing, such as transportation and accessibility issues³².

Trinidad has an operational mobile unit equipped for cervical, breast, and prostate screening (TTCS, 2021)³³. Expanded projects like these can help address issues of lack of testing and follow-up due to accessibility.

Thirdly, efforts should be made to increase subsidized insurance plans. Encouraging more employment-provided or government-subsidized insurance options, regardless of income, can significantly improve screening uptake. Though health services are free to access, many women may not desire to utilize public health centers due to long wait times, overcrowding, inflexibility of hours, and delayed results. The subset of women who would prefer to access private facilities should be able to afford to do so. Having options of varied insurance plans would undoubtedly be of great benefit for many women within Trinidad.

Finally, in a profession where male physicians often still outnumber females, assessing the gap in addressing gynecological issues with at-risk patients is crucial. Though some studies, such as Makam et al., found that most women showed no partiality toward male vs. female gynecologists³⁴, Hall et al., meta-analytic review found a preference by patients for communicating and disclosing information to female physicians³⁵.

Regardless, ensuring female patients are within an environment that encourages conversation and provides comfort is essential. Hence the role of a physician needs to be a facilitating one and not a deterrent. To ensure compliance, all physicians should clarify and educate on HPV and screening during patient visits.

LIMITATIONS

Firstly, this study was limited by the lack of articles regarding screening specifically of women in Trinidad. As a result, some correlations had to be drawn from LACs or other developing countries that would have shown similar characteristics and patterns to Trinidad.

Specific information regarding the turnaround time of pap smear results at health centers, the number of labs within the country doing cytology, or data on patient compliance after positive findings were not available within the scope of this research.

Secondly, many of the public health centers in the country are not on an online platform and are still using paper document methods of gathering information and records, limiting what can conveniently be accessed on the internet. As a result, some articles used data from patients' hospital or clinic records and demographic surveys, whose documentation accuracy could not be verified for this study.

Thirdly, Recall bias should be considered in self-reporting, for instance, in studies with incomplete data, and patients themselves had to be contacted to gain information. Another limitation of this study was that some articles were based on smaller study groups, usually from one geographical area. So it would be hard to infer associations or influences about the general public as a whole, and there could be a likelihood of selection bias with this approach. Furthermore, studies varied between narrative reviews and cross-sectional studies. As a result, some articles can only suggest an association between findings and not confirm a related cause, making assumptions for this review less reliable.

CONCLUSION

Cervical cancer remains a condition with high mortality if not detected early. Routine pap smear screening has been proven to be a solution to address this. Efforts should be made to adapt to today's society's evolving needs and resources. Countries like Trinidad with protocols for Cervical cancer screening must continue to maintain their efforts. However, current policies need to be frequently reviewed and adjusted. Innovative methods should be considered to tackle the deterrents to screening so women of different age groups, economic backgrounds, and geographical locations can be reached. Only then can there be an assurance that with regards to cervical cancer screening, no woman is without access to the help she needs.

AUTHORS STATEMENT

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We, the submitting authors, declare that this paper has not been submitted for publication anywhere else, has not been previously published and is not currently under consideration for publication elsewhere. Each author listed has made contributions, edits and participated in the conception of this study.

As well, there are no competing interests and no funding was required. Ethical approval was not needed as all data obtained for this article was from other previous publications already available for access on online databases.

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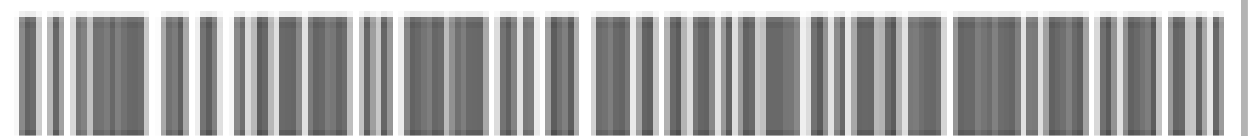
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