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Variation of Linear Algebra Problems, Based on Algebraic Models, In the Training of Teachers of Mathematics at Univerisdad Autonoma De Santo Domingo UASD

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ABSTRACT: This report deals with one of the presented problems in the initial training of mathematics teachers and aims to characterize the process of variation problems of linear algebra at the Autonomous University of Santo Domingo. The methods used were the historical-logical and the analysis-synthesis. The main results are the precision and systematization of different theoretical approaches proposed by authors and the conclusive analysis of the process.

KEYWORDS: Technique, construction of problems, problem variation, linear algebra, future Math teacher.

I. INTRODUCTION

In the opinion of some authors, such as Gracia (2012) cited by (Pérez, 2018), students for mathematics teachers have not received training in the necessary skills, or in the techniques that allow them to model real situations, which limits the formulation and resolution of problems related to Linear Algebra. This problem is particularly evident in the Dominican Republic, which is why it has been one of the main reasons for carrying out this research.

Day by day technological changes and advances occur in the treatment of the different spheres of knowledge at a global level, which cause challenges in the different actors that affect the transmission of knowledge. These changes, in turn, affect the teaching-learning processes, so it is concluded that current education must adapt to the new demands imposed by the great scientific and technological advances in a globalized society that requires being prepared to interact in all sectors: economic, social and cultural; hence the concern of many countries for the training of teachers, due to the important role that they play in the solid construction of knowledge in future generations. (Pérez, 2018).

Hence, the objective of this study is: to design a technique to obtain a linear algebra problem, from a given problem of the same nature, on the basis of algebraic models**.**

II. METHODOLOGY

The methodology used combines different methods and techniques of didactic study, in it the method of analysis - synthesis is combined to systematize concepts related to linear algebra problems and their construction; the modeling method is used to design a technique of variation of linear algebra problems based on algebraic models; and participant observation is applied to a course that inquiries about the validity of the proposed technique.

III. PROCEDURE

To achieve the proposed objective, it is necessary to previously characterize the variation of linear algebra problems and clarify some conceptual assumptions. Among these are those of: mathematical problem, some classifications thereof, the structure of a problem, as well as the characteristics of linear algebra problems and their models.

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Main Characteristics of linear algebra models and problems

In the first place, the meanings of the concept of a problem, in particular a mathematical problem, of different authors who have ventured into this subject will be considered. here are many challenges for the training of teachers in mathematics, the great didactic trends in mathematics training, prioritize including the vertiginous advance of technology in the entire learning process as a powerful tool to contribute to improvement of performances. For countries like the Dominican Republic and in general today face new opportunities and challenges in all areas of life, many of which stem from the rapid deployment of computers and devices like robots, smartphones, and networked machines. For example, most young adults and students who started university post 2015 have always considered phones to be mobile hand-held devices capable of sharing voice, texts, and images and accessing the internet.

The big question then arises for all the institutions in charge of training teachers WHAT TO TEACH, AND HOW TO TEACH, many restrictive understandings arise from the way mathematics is conceived. Many people see mathematics as no more than a useful toolbox. A clear trace of this approach can be found in the school curricula of many countries. This perspective on mathematics is far too narrow for today's world. It overlooks key features of mathematics that are growing in importance.

On the other hand, Cruz, M. (2002) makes a synthesis of what was expressed by other authors, and quotes them, to accept as a problem that situation that is characterized by the existence of a person (or group) who wants to solve it, of a state initial to final, and some kind of impediment to the passage from one state to another. This author starts from a general definition of a problem that he later uses in the conceptualization of their formulation for the teaching of Mathematics.

In the case of González, D. (2001) accepts the definition of Labarrere, A. (1994) of a mathematical problem with text and adds two elements, not explicit in it, which Campistrous, L. and Rizo, C. (1996) refer to.), that is: (1) the solution path must be unknown; (2) the person must want to solve the problem (motivation). Definition that could be accepted for the purposes of this research but that its name is redundant and excludes certain types of problems.

Malaspina, U. (2007), states that a mathematical problem is any situation that requires analyzing information, establishing logical relationships, and drawing conclusions. Concept that is very open to be accepted as a presupposition in this research, although it achieves some precision when it later describes its fundamental components.

In the most recent specialized literature, the following definition has been found: a mathematical problem is defined as a statement that contains an unknown situation of interest to a subject that requires mathematical means for its solution (Pérez, K. 2017). As this definition is not in contradiction with those analyzed in this section, it will be taken as a reference and will be used to make a synthesis of the structural parts of a mathematical problem.

A mathematical problem consists, at a first level of the statement and of the mathematical means. The statement, in turn, consists of an initial situation and an unknown final situation (quantitative or qualitative) to find, examine, or conclude. The initial contains the fact or phenomenon under investigation, the context where it occurs and the data (quantitative or relational). For its part, mathematical means are made up of the environment and the way of resolution. The environment is formed by the mathematical concepts, their relationships and practical meanings that intervene or may intervene to solve the problem. And the way is given by the procedures, methods and strategies used in its solution. These components, indistinctly, are distinguished by authors such as: Polya, G. (1976); Davidson, L and Reguera, R. (1987); Labarrere, A. (1988); Llivina, M. (1999) González, D. (2000); Malaspina, U. (2007); and Pérez, K. (2017), were later recreated in this research from the assumed problem definition.

In the case of linear algebra problems, the environment is that part of mathematics related to this branch. The present investigation preferably refers to problems whose context is extra mathematical.

If the result of the problem is taken as a basis from the relationships present in the data, then linear algebra problems can be classified - regardless of context - into consistent and nonredundant; inconsistent and consistent and redundant. The inconsistent ones present a contradiction; therefore, the result is the empty set, or it is false. Consistent and nonredundant have only one solution. Redundant consistencies can be redundant with respect to the relationships and / or variables present in the data. When the relationships are redundant it means that some of them are left over, and when the variables to be investigated are redundant it means that there are missing relationships. However, a valid result can be obtained in either type. Furthermore, it is said that a problem is well formulated algebraically if it is consistent and not redundant. Finally, it can be stated that two linear algebra problems are equivalent if they have the same number of variables in the final stated situation and have the same solution set.

An apparently simple example of the types of problems is presented in those that lead to the expression $ax = b$. If a is different from zero, then the problem is consistent and not redundant; if $a = 0$ and $b \neq 0$ is inconsistent; and if $a = 0$ and $b = 0$ it is consistent and redundant. It is significant that the theories of linear algebra allow, in most cases, to classify problems without reaching the

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solution, if certain characteristics of the corresponding model are known. This case constitutes a potentiality from the functional point of view for the treatment of problems in the PEA of Linear Algebra.

Regarding algebraic objects and their relationship with the context, it is corroborated by what has been stated by Pecharromán (2013), who considers that the reason for the existence of mathematical objects is to be or represent a functionality in a context, associated with the nature that originate them. It is concluded that mathematical objects, in particular those of linear algebra, acquire a specific identity as a result of their functionality in the context that gives them origin, which is subsequently developed in other spaces of use. The functionality of a mathematical object is given by its potential to be used in different contexts and each new use endows it with new meanings.

On the other hand, Casas and others (2012a) pose five types of problems in the context of linear algebra, a classification that was made with the purpose of creating a knowledge base in the computer sense. As in this research emphasis is placed on problems where the context is extra-mathematical, these problems are then built into mathematical models where the objects used to represent the facts or phenomena are typical of linear algebra and that in this research will be simply referred to as algebraic models. Each of them has its equivalent in each of the theories that make up this branch of Mathematics, a fact that favors different environments for each problem and different ways of interpreting them. The authors consider that these entities contain a potentiality, from the functional point of view, to interpret the changes that can be made in the problems of linear algebra.

In this section, the following were specified: the definition of the mathematical problem to be considered in this research, some classifications of the same and the parts that compose it. Also, the main characteristics of linear algebra problems and their models were described, highlighting their functionality for the former.

Variation of linear algebra problems

There are many mathematical relations that occur in life. For instance, a flat commission salaried salesperson earns a percentage of their sales, where the more they sell equates to the wage they earn. Because the field of research is relatively new and little explored, the epistemological characterization of the variation of linear algebra problems will be done through the contextualization of some types of construction of mathematical problems. In principle, the construction of mathematical problems is understood to be any process of obtaining them.

For Malaspina (2013), the variation of a mathematical problem is conceived as a process according to which a new problem is built, modifying one or more of the fundamental elements of the given problem. The fundamental elements are understood as the information (the quantitative or relational data that are given in the problem); the requirement (what is requested to be found, examined or concluded, which can be quantitative or qualitative); the context (it can be intra-mathematical or extra-mathematical); the mathematical environment (the global mathematical framework in which the concepts that intervene or may intervene to solve the problem are located).

In this investigation, the variation of linear algebra problems is considered as a process in which one problem (of linear algebra of course) is built from another by transforming one or more components of the given problem. This process, as can be seen, refers to the context of linear algebra and differs from that defined above by the referents relating to mathematical problems and their components, which were specified in the previous section.

In another section, Malaspina (2013a) refers to the variation processes; and elaboration of mathematical problems as creation processes, based on the definition of mathematical problem creation given by the authors Stoyanova and Ellerton (1996). In addition, it considers that elaboration is a process of creation according to which a new problem is constructed, either in a free form, from a situation (given or configured by the author), or by a specific request, thus establishing the difference. between both processes, only in terms of the starting point. But there are indications to think about another difference, and that is that the variation of problems is a productive process, although it could become creative, as will be explained later.

The variation; and the elaboration; of problems have the same objective, and that is for the student to enunciate mathematical problems with precision, in which their referents reflect that part of the historical-cultural heritage of humanity that the student wants to show; that is, with meaning for him. (Pérez, K. 2017). This is the interpretation of significant mathematical problems considered by the authors.

The fundamental difference between those processes; it lies in the mathematical tasks (exercises, problems or situations) that demand their completion. In the case of variation, they generally contain in themselves a higher level of help than that presented in the elaboration, because in the first, one starts from a problem that must be transformed into another and in the second, the point of departure is only a fact or situation. This aspect suggests that it is necessary to consider the levels of assimilation of the content required for the realization. In the opinion of the authors of this research, the task on variation of linear algebra problems can and should be considered as an open problem, like other processes of construction of mathematical problems (see Cruz,

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2002). This assertion is made based on the potentiality that, from the functional point of view, the objects of this branch of Mathematics present; specifically when the algebraic model of the problem object of variation is formed, as explained in the previous paragraph. In this type of task, the requirement is to state a new problem (final situation) with certain characteristics based on a given problem. The problem to be obtained is not unique (each student can offer a different answer) hence the open nature of the task.

From the psychological perspective of Vîgotsky's (1987) historical-cultural approach, one of his main contributions consists of the notion of the "Zone of Proximate Development" (ZPD), which expresses the relationship between education and development. This concept is characterized by the need for an asymmetric novice-expert relationship, as the genesis (in the former) of higher psychological processes; and also by the appearance of a potentiality, which emerges from this relationship. Here the genetic law of development is manifested, which postulates that every psychic process appears twice: first on an interpersonal plane, then on the intrapersonal plane

En el presente trabajo se es consecuente con esta noción de ZDP, en la cual cada estudiante debe trabajar sobre las fronteras de su propio conocimiento. Consecuentemente, la tarea sobre la variación de problemas no debe ir orientada hacia el nivel actual de desarrollo del escolar, sino hacia la ZDP. La situación inicial de la tarea planteada debe estar concebida para el nivel actual, pero la situación final debe conducir a que el estudiante se apropie de un nuevo conocimiento. Aquí debe ponerse de manifiesto la relación asimétrica novato–experto donde el estudiante es guiado por sí mismo a partir de las orientaciones que le ofrece el profesor. Es por ello, que se deben considerar dos aspectos esenciales: uno subjetivo y otro objetivo. Esto permite comprender que la tarea que exige la variación de problemas será un problema si el paso del estado inicial al estado final implica que el estudiante experimente un desarrollo cognitivo, al trabajar sobre su ZDP. Con esta descripción se comprende que este tipo de tarea puede ser un problema para un estudiante y para otros puede no serlo, esta relatividad constituye una alerta para el profesor, quien debe estar pendiente cuándo una tarea sobre la variación de problemas deja de ser un problema para el estudiante para convertirse en un ejercicio o problema "rutinario". Esta denominación ha sido utilizada por otros autores, entre ellos al reconocido Pólya (1957).

- You can take advantage of the functionality of linear algebra objects, specifically algebraic models, to carry out transformations in problems and to characterize the transformed problem.
- The linear algebra tasks corresponding to the variation of problems can and should be considered as problems.

Variation of linear algebra problems based on algebraic models

The present work is consistent with this notion of ZPD, in which each student must work on the frontiers of their own knowledge. Consequently, the task on the variation of problems should not be oriented towards the current level of development of the student, but towards the ZPD. The initial situation of the proposed task must be conceived for the current level, but the final situation must lead the student to appropriate new knowledge. Here the asymmetric novice-expert relationship should be revealed where the student is guided by himself from the guidance offered by the teacher. That is why two essential aspects must be considered: one subjective and the other objective. This allows us to understand that the task that requires the variation of problems will be a problem if the passage from the initial state to the final state implies that the student experiences a cognitive development, when working on her ZPD. With this description it is understood that this type of task can be a problem for a student and for others it may not be, this relativity constitutes an alert for the teacher, who must be aware when a task on the variation of problems ceases to be a problem for the student to become a "routine" exercise or problem. This name has been used by other authors, including the renowned Pólya (1957).

- You can take advantage of the functionality of linear algebra objects, specifically algebraic models, to carry out transformations in problems and to characterize the transformed problem.
- The linear algebra tasks corresponding to the variation of problems can and should be considered as problems.

Variation of linear algebra problems based on algebraic models taking into consideration the theoretical constructs previously analyzed, a technique for the variation of linear algebra problems can be inferred that consists of:

Given a linear algebra problem (initial problem) build the corresponding algebraic model (initial model). Then make modifications, as appropriate, to the initial model to arrive at a new model (resulting model). And finally state a problem (resulting problem) that corresponds to the final model. This process is schematically represented in the following Figure.

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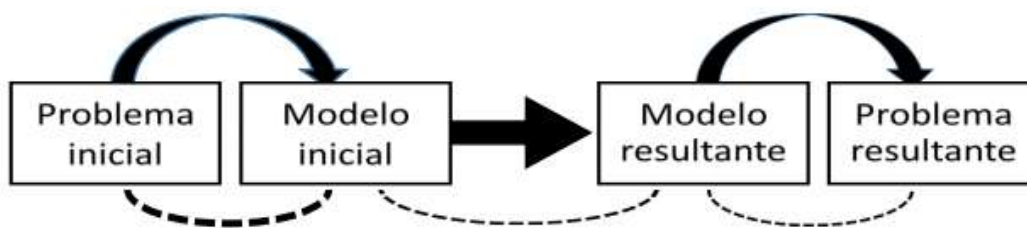
Figure 1. Variation technique of linear algebra problems based on algebraic models.

Experimental course at the XXXIII Latin American Meeting of Educational Mathematics. (RELME 33)

The workshop consisted of explaining to the students the theoretical basis of a well formulated problem and a redundant problem, based on the theoretical assumptions of the works on production of linear algebra problems by (Pérez, 2018). The idea was that students could vary a given problem in light of its components.

To carry out the workshop, two problems formulated by (gracia, 2012) were adapted and which resulted in the following way:

Problem 1. A recycling company uses discarded paper and fabric to make two different types of recycled paper. A batch of grade A recycled paper is made from 40 kg of fabric and 160 kg of paper, while a batch of B-type recycled paper is made from 80 kg of fabric and 120 kg of paper. The company has 280 kg of cloth and 960 of paper. How much recycled paper of each type can be made with 280 kg of fabric and 960 kg of paper?

Problem 2. A bottler uses three kinds of pure juice - pineapple, orange and lime - to make two mixed juices, pineapple-orange and pineapple-lime, which are sold in 1/2-liter cartons. Each mixture is obtained by mixing equal amounts of each of the juices that make it up. The amount of juice available is 80 l. of pineapple juice, 50 l. of lime juice and 30 l. of orange juice. How many cartons of each juice mix can be made?

Participants were informed that the first is well formulated algebraically and the second is redundant. And then the participants were asked to perform the following tasks:

For the first:

1. Formulate an equivalent problem and justify your answer.
2. Justify the fact that it is well formulated algebraically and for this use the following concepts.
   a) The SEL classification. b) The rank of a matrix. c) The determinant of a square matrix. d) Base of a real vector space. e) The kernel and the image of a linear map.
3. Formulate an extended problem to three types of recycled paper such that the new problem:
   a) Have a solution.
   b) There is no solution.

For the second:

4. Formulate a new problem where the amount of juice available varies so that the new problem:
   c) Have a solution.
   d) There is no solution.
5. Formulate a new problem where you vary the proportions of the mixture.
6. Formulate an equivalent problem where redundant information is removed

As results of the workshop, the students were able to vary the problem and came quite close to the objectives of the workshop, at first it was very difficult for them to vary the given problem, presenting difficulty on the basis of the content involved in the dynamics, but then they were clarifying the doubts that have arisen until the problem and its model are varied.

IV. CONCLUSION

The theoretical and practical analysis described in the body of this report showed the need to coherently articulate the assumptions of the approach to the construction of mathematical problems initiated by Malaspina (2013, 2015) with the teaching-learning approaches of Linear Algebra, in the search for a didactic model that gives a coherent explanation to the variation of linear algebra problems as a content application process.

The exposed technique considers the realization of transformations in the algebraic models, which is why it is a process that requires the integral systematization of the contents. This implies the need to consolidate the application of the content to diverse situations, as a way of promoting the construction of problems by the student.

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Opportunities and Prospects for the Development of Ecotourism in the Jizzakh Oasis

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ABSTRACT: This article reflects the ecotourism opportunities of Jizzakh region. In particular, information was provided on the tourist potential of Zaamin Bakhmal and Forish regions.

KEYWORDS: Ecotourism, activism, home hotels, ecotourism facilities, infrastructure, oasis ecotourism facilities, tour operator, relief, GEF projects, speleotourism

INTRODUCTION

In recent years, a number of measures have been taken in our country to preserve Mother Nature and preserve biological species. In 2001-2005, Uzbekistan implemented the GEF International Bank for the Conservation of Biological Diversity of the Western Tien Shan and the international project Europe Aid. These projects are directly related to environmental protection and attracting local people to tourism.

THE MAIN RESULTS AND FINDINGS

As an alternative activity, the local community is invited to receive and serve foreign and local tourists interested in tourism, i.e. local flora and fauna, landscape, folk history and culture. Even if the industry is seasonal, with a clear plan and success, it is possible to extend the season and earn the same amount throughout the year. Provides accommodation, meals, transportation, customs and crafts demonstrations, guidance, protection and security services.

The development of this industry will encourage local crafts based on national traditions and the mentality of our people: the population will restore handicrafts and hunting to the best of their ability. It will be an additional source of income that does not require a large investment. In addition, the local population provides tourists with quality food products grown not only from other regions, but also from subsistence farming (vegetables grown on vacant lands in the residential area). Begins.

As a result, the population itself begins to actively protect nature, because if the environment deteriorates, foreign tourists will not come, which will have a negative impact on the income of the local population. As a result, stakeholders will have to allocate part of their funds for conservation activities and the restoration of cultural and artistic monuments.

Importantly, the development of this sector will stimulate communications, new technologies, the construction of roads, communication lines, medicine, drinking water, energy and other activities.

The Western Tien Shan is the territory of the three states of Uzbekistan, Kazakhstan and Kyrgyzstan. Therefore, it is impossible to develop tourism here without active cooperation and coordination between these countries. The issue is not only the creation of cross-border tourist routes, which are popular with foreign travelers, but also the preservation of natural resources, prevention of savage extinction of animals through poaching, reducing the negative impact of industry, boosting the local economy. also. Both the government and the local community should be interested in the development of the region. They have to control all the economic processes that take place in their area and take control of the management. The TACIS project to conserve the natural resources of the Western Tien Shan is aimed at solving this problem.

Currently, ecotourism products are in great demand among foreign and domestic tourists. According to experts, Central Asia could become a unique "Mecca" for nature travelers. In this regard, on April 17, 2006 the Resolution of the President of the Republic of Uzbekistan No. PP-325 "On measures to accelerate the development of the service sector of the Republic of Uzbekistan 2006-2010" was adopted. In order to implement this decision and develop ecotourism, the State Committee for

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Nature Protection has developed a "Concept for the development of ecotourism in the Republic of Uzbekistan and its near future."

This concept envisages the necessary conditions, organizational and legal issues for the gradual development of ecotourism in our country. If these issues are addressed, the Republic of Uzbekistan will have a great opportunity to become one of the most developed countries in the world in the field of ecotourism.

Despite the great potential of tourism in Uzbekistan, its share in GDP is only 0.5%. Although the industry employs a total of about 6,000 people, there are at least 30,000 additional jobs that will serve tourists. In addition, other sectors that supply goods and provide various services to replace hospitality — energy, utilities, road services, public safety, medicine, insurance, banking, foreign policy, and connections, etc. (more than 20 sectors of the economy). However, the peculiarity of tourism is that, although it is possible to assess the level and quality of service, the "effects" that can not be measured by any measure - impression, spiritual nourishment, satisfaction, aesthetic pleasures, etc. can be enumerated.

According to official data, in 2006 the import of tourist services amounted to 21.2 US dollars per 1 US dollar, in 2007 the ratio was 1: 23.8 US dollars, an increase of 112%. swelling was observed. However, the figures show that exports of services accounted for 14.7%, imports for 24% and the negative balance for 14.3%.

It is known that no factor in the world is static, there are changes that lead to an improvement or deterioration of the situation in the country. In other words, tourists respond to changes in the situation with their "feet": if they do not like something, they change their route. In world practice, the volume of annual travel of national and foreign citizens across the country is considered to be domestic tourism. However, it is often difficult to determine the number of tourists who are citizens of this country, because during the trip they do not perform formalities (registration), do not always stay in hotels, boarding houses and holiday homes, their visits are for other purposes (shopping). to do, to visit relatives, to go to weddings). Such trips make up the bulk of domestic travel. Such trips are usually more intense in late spring, early summer, and fall. Such travelers prefer cheaper rail and road transport.

At the same time, it should be noted that the share of foreigners in the total volume of domestic tourism is 50.7%, the largest number of foreign visitors is in Tashkent (50.1%), Bukhara region (19.1%), Samarkand region (15.4%), Khorezm (8.94%) and Surkhandarya (3.88%) regions. Thus, 94.8% of tourists visiting Navoi region are citizens of other countries. In Bukhara region it is 73.9%, in Samarkand region - 51.7%, in Surkhandarya region - 84.2%, in Khorezm region - 50.1%.

Thus, the statistics allow us to draw the following conclusions: First, the internationally reputable and well-advertised routes (Tashkent-Samarkand-Bukhara-Khiva) have been operating for many years and have accumulated extensive experience. .In 2008, they accounted for the bulk of all foreign visitors (92%).

Secondly, foreign tourists come to Termez, Karshi and Navoi for special purposes (archeology, ethnography, natural landscapes). But tourism products in this area are not popular.

Third, some areas, such as the Fergana Valley, Syrdarya, and Jizzakh, remain transit routes because more money is needed to popularize them. In addition, tour operators recommend them not for public consumption, but for individual orders (hunting, astronomy, ecology, folklore).

There are more than 7,000 historical, cultural, architectural and archeological sites in Uzbekistan. That's what attracts foreigners like a melody. According to B. Turaev, "... 545 of them are architectural, 575 historical, 1457 art monuments, more than 5500 objects are of archeological value. However, only 140 of them are involved in the tourist demand. Of the facilities listed above, more than 200 are under repair, with 500 under repair; that's tens of millions of dollars a year. The experience of other countries shows that for many tourists, the process of repair itself is interesting. In this regard, there are several thousand archeological sites in Uzbekistan. In addition, there are more than 300 museums and 1,200 folk art enterprises in the country. The number of tourist attractions is 144 in Tashkent, 118 in Samarkand, 221 in Bukhara and 310 in Khiva. However, in general, tourism authority is underused. "

After the independence of the Republic of Uzbekistan, radical reforms are being carried out in all sectors of the economy. In particular, the state pays great attention to the development of tourism. In his works and practical activities, President of the Republic of Uzbekistan Islam Karimov emphasizes that it has always been a dream of tourists around the world to see the rich historical heritage, monuments, tombs and historical monuments built by our great ancestors, as well as the land where they lived. Also, the so-called paradise of Uzbekistan creates favorable conditions for our compatriots and foreign tourists who want to enjoy the diverse flora, fauna and charming nature in all four seasons of the year.

Zaamin district fascinates not only with its natural scenery, clear waters, fresh air-saturated airy landscapes of the Turkestan mountain range, but also with the fact that it is the second settlement of the ancient country of Ustroshona and the scholars who lived on this land. To create a history of each place on the routes set by the administration of Zaamin district and a group of activists in order to please our leaders and foreign tourists with the wonders of nature, along with the wonders of nature, our

great heritage and our efforts for development today. , beautification, creation of conditions in accordance with world standards.

Jointly approved by the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated March 9, 2012 40 "On measures to attract non-discriminatory technical assistance (grants) from international financial and economic institutions, donor countries to the Republic of Uzbekistan in 2010" If we pay attention to the results of the analysis carried out in the framework of the project of the United Nations "Support to local government, civic participation and cooperation", we draw your attention to the following conclusions about the tourist opportunities in the district.

So, the strengths of tourism development in the strong Jizzakh region:

1. Ecologically clean and very close to nature is one of the most important issues today.

2. It has healing properties for the human body

3. Existence of the National biological national park which is well studied from biological, ecological, historical and cultural point of view

4. Presence of unique natural, historical and cultural tourist sites in the territory of the People's Park and Zaamin State Reserve.

5. Support of tourism by local and regional leaders. The population has confidence in the future of tourism.

Also as weaknesses:

1. Lack of highly qualified personnel.

2. Insufficient number of managers working in the field of tourism

3. The activity of receiving tourists is still weak, due to the lack of basic resources of the local population, as well as their lack of knowledge and skills in the field of tourism.

4. Lack of qualified staff in the reception and service of tourists among the staff of the national park, as well as poor organization of work in this area.

5. It turns out that there is no mechanism for interaction and support between the local population and the staff of the national park, as well as tourism development agencies.

However, it is noted that there are many opportunities for the establishment and further development of tourism in the natural areas of Jizzakh region.

1. Possibility to form an organization responsible for the formation of infrastructure, taking full responsibility.

2. The formation of a body that approaches tourism from a professional point of view.

3. Availability of hospitality and high quality services to visitors.

4. Cooperation of the local population with the management and tourism officials.

5. The fact that the local population and the staff of the national park have at least a little knowledge and skills in the field of tourist services, and efforts are being made to fully explore.

It is also noted that there are some risks. For example,

1. So far there are no clear tourist routes and the existing ones are rarely advertised.

2. Decreased payment of state fees in the field of tourism and the lack of attention of local entrepreneurs in this area, despite the availability of other opportunities.

3. The climate of the region is strongly dependent on natural changes.

4. Failure of the staff of the specially protected area in the area to take full responsibility for the management of visitors in the field of tourism. As a result, due to the lack of aesthetic and ecological literacy of tourists and visitors, there is a high level of environmental pollution, life-threatening situations (fires, water pollution, waste, etc.).

5. There are restrictions on the development of domestic and foreign tourism, indicating a lack of knowledge and skills, a one-sided approach to tourism, inadequate actions in the organization of souvenirs, folklore and other entertainment activities, wishes.

CONCLUSION

Today, along with all sectors of tourism in the world, there is a growing demand for trips to natural sites and villages. In other words, the types of culture, history and nature study make up 15-23% of the total tourism. Ecotourism occupies 10% of the market compared to some other tourism markets. Its growth rate in the tourism industry has increased by 2-3 times. In developed countries, nature travel is one of the most expensive forms of recreation and study, but thousands of people do not spare their money for it.

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Technical and Economic Level, Justification of Basic Technological Solutions of Formalin Production in Navoyazot, Selecting the Optimal Production Method

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ABSTRACT: Formaldehyde is a very active chemical compound that easily reacts with other substances to form a large class of new compounds, many of which have important properties. Due to its reactivity, formaldehyde in a relatively short period of time has become one of the indispensable semi-products of large-tonnage organic synthesis.

KEYWORDS: Formaldehyde, methanol, conversion, poorly soluble varnishes, coatings, adhesives, laminated plastics.

INTRODUCTION

Formaldehyde is used industrially as a raw material for the production of synthetic resins, plastics, new organic dyes, surfactants, varnishes, pharmaceuticals and explosives. In agriculture for seed treatment, in the leather industry for tanning leather, in medicine as an antiseptic and in animal husbandry. The range of applications for formaldehyde is growing from year to year. In this regard, its production is also growing.

Currently, the main consumer of formaldehyde is the synthetic resin industry: production of phenol-formaldehyde, urea-formaldehyde resins; resins modified by formaldehyde treatment; poorly soluble varnishes, coatings, adhesives, laminated plastics.

MATERIALS AND METHODS

The most widespread product is a product containing 35 % formaldehyde and 6 % methanol called formalin. Formalin recipe was formed historically, under the influence of the following factors. First, methanol and water accompany formaldehyde at the stage of its production by the most common method (methanol is a raw material, water is a by-product and an absorbent). Secondly, a solution of the specified composition at positive temperatures is quite stable to polymer precipitation and can be stored or transported for an indefinite period of time. In - Thirdly, in the form of an aqueous formaldehyde-methanol solution can be used in most industrial synthesis, as well as the ultimate user. and, finally, fourthly, it is formalin that is obtained during the oxidative conversion of methanol in the presence of metal catalysts for the absorption of a contact gas; as a rule, no additional operations for imparting marketable properties to the product (concentration, purification, etc.) are required. [16 pp 4]

In the city of Navai, at the Navoiyazot plant, there is an operating formalin production facility (Navoiyazot) with a capacity of 12-15 thousand tons per year.

The main goal of the project is to determine the possibility of expanding this production using the example of a formaldehyde synthesis unit. An important point is to establish the possibility of providing new, increased productivity with existing equipment. It is also necessary to consider issues related to technological control, labor protection and ecology in the changed operating conditions.

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Formaldehyde is obtained from methanol, dimethyl ether, natural and associated gases (gas of coke production and oil refining). Commercially mastered methods of obtaining formaldehyde:

1.) Catalytic oxidation of methanol on metal catalysts.
2.) Catalytic oxidation of methanol on oxide catalysts.
3.) Oxidation of natural gas and lower paraffins.

In the first case, silver is most often the catalyst (gold or platinum can be used); in order to save methanol, silver is uniformly applied to an inert carrier, for example, pumice. The essence of the method consists in the vapor-phase oxidation of methanol hydrogenation with atmospheric oxygen in an adiabatic reactor, followed by the absorption of the reaction products by water. In the process, a methanol-air mixture is supplied with a composition above the upper explosive limit (36.4% - volume fractions) and with oxygen deficiencies according to the chemical equation for the oxidation of methanol to formaldehyde, since catalyst - oxidation-dehydrogenation:

$$CH_3OH + \tfrac{1}{2}O_2 \rightarrow CH_2O + H_2O + Q \ (147.4 \ kJ/mol); \qquad (1.)$$
$$CH_3OH \rightarrow CH_2O + H_2 - Q \ (93.4 \ kJ/mol); \qquad (2.)$$
$$H_2 + \tfrac{1}{2}O_2 \rightarrow H_2O + Q \ (241.8 \ kJ/mol). \qquad (3.)$$

At the same time, side reactions occur, which reduces the formaldehyde yield and increases the consumption of methanol. Formaldehyde yield reaches 80 -5% at a degree of conversion of methanol was 85 -%. Since the oxidative dehydrogenation is carried out with a lack of oxygen, the deep oxidation process does not receive significant development. At the same time, the dehydrogenation itself, initiated by oxygen, proceeds faster; therefore, the percentage of side reactions is not large. This method can be used to obtain formalin of two grades: FM -% with a methanol content of up to 10% and FMB -% with a methanol content of less than 1%. Formalin FM brand is subject to transportation and storage, because methanol stabilizes it.

In the second method, the catalyst is a mixture of iron and molybdenum oxides. Oxidation of methanol on oxide catalysts proceeds according to the redox mechanism:

$$CH_3OH + 2MoO_3 \rightarrow CH_2O + H_2O + Mo_2O_5 \qquad (4.)$$
$$Mo_2O_5 + \tfrac{1}{2}O_2 \rightarrow 2MoO_3 \qquad (5.)$$
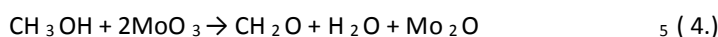
The process is carried out in an excess of air at (350 -) ^{about} C and normal pressure, otherwise, under the action of methanol and formaldehyde, the catalyst is rapidly reduced. The reaction proceeds when the ratio of methanol and air is below the explosive limit (7 -% - volume fractions).

The process is distinguished by a high degree of methanol conversion -%, as well as a strong exothermicity, which makes the use of cooled tubular reactors. This method allows you to obtain formalin -% with a methanol content of no more than 0.5%. The use of technologies with an oxide catalyst deserves some preference when the required productivity is not higher than 8 thousand. tons / year. Third way. From the point of view of the availability and cheapness of raw materials, as well as the simplicity of the technology (obtaining formaldehyde by direct oxidation of natural gas, consisting mainly of methanol, with atmospheric oxygen), it deserves preference over the relatively complex and multi-stage synthesis through methanol (according to the scheme):

natural gas → synthesis gas → methanol → formalin

RESULT AND DISCUSSION

However, in practice, a number of difficulties arise that are associated with insufficient stability of formaldehyde under the reaction conditions. Methanol oxidation occurs at 600 ^{to} C at the same time the thermal decomposition of formaldehyde is observed even at 400 ^{of} S. formaldehyde yield does not exceed 3% with a selectivity of 10 -%. Therefore, the considered method occupies a very modest place in the balance of formalin production, and only in the future new technological methods of oxidation are used (taking into account the increasing scarcity of methanol and the comparative availability of natural gas).

Therefore, the first two methods deserve attention in choosing a method for the production of formalin. Let's consider them in comparison and choose the right one for ourselves.

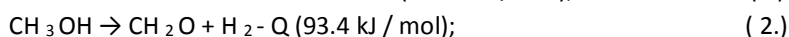Comparative characteristics of formalin production methods in table 1.

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Table 1. - Comparative characteristics of formalin production methods

Method	Benefits	disadvantages
1. Oxidation on a silver catalyst	a) there are practically no restrictions on the unit capacity of the installation b) simplicity of the design of the reactor c) low metal and energy consumption d) high performance	a) high consumption ratio for raw materials b) expensive catalyst congestion c) the presence of methanol in formalin up to 5 -%
2. Oxidation on an oxide catalyst	a) low consumption coefficient for raw materials b) the presence of methanol in formalin no more than 0.6 -, 0% and the presence of HCOOH no more than 0.02%	a) increased consumption of energy and air b) restriction unit capacity of the installation c) complexity in operation and repair d) increased metal consumption

Comparing economic and production costs, as well as the volume of production and (we need at least 3 thousand tons / year) for the needs of formalin- consuming production - urea resins (volume - thousand tons / year), we choose a production method for oxidative dehydrogenation of methanol for silver catalyst.

The choice of catalyst and its characteristics: In Uzbekistan, at all industrial plants for the production of formaldehyde from methanol, silver tribrach contacts such as silver on pumice are used. Characteristics of this catalyst:

Appearance - gray shiny grains of irregular shape.

Grain size, mm –5.

Mass fractional composition: %

Sifting through a sieve 2 2 mm, no more than 2.0;

Sieve residue 5 5 mm, not more than 5.0;

Specific surface, m ^{2}/ h 0.5 - 0.

Most foreign formalin production uses metallic silver without a carrier (nets, crystals, spongy silver, etc.). In terms of the selectivity of formaldehyde formation, the contact and tribrach catalysts are practically equivalent. The main differences between friction and contact catalysts relate to their performance characteristics. The benefits of tribrach contacts include the following:

1. resistance to overheating;
2. reduced requirements for the purity of raw materials;
3. less one-time loading of raw materials.

The main disadvantage of this catalyst is the short duration of the inter-regeneration cycle of operation (3 months).

The use of contact (unapplied) silver has the following advantages:

1. elimination of a set of issues related to the receipt and preparation of the media;
2. "Reagent-free" catalyst preparation system;
3. practical absence of silver losses due to abrasion and contact grinding.

When choosing one form or another of a silver catalyst, such factors as experience and tradition are of decisive importance .

The technology for preparing a silver tribrach includes the main stages:

1. impregnation or deposition on the surface of the carrier salt containing silver;
2. reduction of the silver cation to a free metallic state.

In practice, the silver content of the SNP catalyst is about 40%. Catalysts with lower silver content lose activity more quickly and require "reapplication".

The top two catalyst layers are crystals 0.8–1.0 mm in size, the bottom layer is silver in the form of thin filaments.

Another firm proposed to divide the silver catalyst into 4 layers with a total height of 20–30 mm, and the silver ring around the reactor perimeter serves as the 5th layer. A characteristic feature is the use of bidispersed silver granules. So, in the lower part of the layer, it is recommended to place granules with a size of less than 0.3 mm, the amount of which is 1/8 of the

total amount of silver. Another part of the catalyst in the form of granules up to 1-3 mm in size is poured over the fine particles. The molar yield of formaldehyde is 88%.

The use of a two-layer catalyst makes it possible to carry out the process with methanol conversion up to 97.4% at a molar selectivity of 89 -%.   [

Comparing the foreign experience in the production of formalin on catalysts in a very thin layer, in the form of metal sieves (silver nets), it is proposed to switch to a similar type of catalyst.

Characteristics of the silver catalyst (sieve):

wire TU 48 ——;

wire thickness, mm - 22;

the number of cells per 1 cm ^{2} -;

Excessive cost of a catalyst - 3000 sum.

The transition to silver mesh will reduce the number of workers in the catalyst department (by simplifying the preparation of the catalyst), and therefore increase labor productivity. Due to the longer service life (1 year) of the catalyst, the effective fund of working time increases, and the capacity will increase.

Processes of formaldehyde chemisorption by water : Extraction of formaldehyde and methanol from reaction products by absorption of cooled water is carried out in column-type absorption systems of various designs and is discussed in detail in the article by A. Sh. Arifzhanov and MR Pulotova., [7, P.48]. The commonality of all industrial developments is that pre-cooled gases flow down the absorber, and cooled water is supplied to the upper part of the apparatus, which, after passing through the absorber and absorbing formaldehyde and methanol, is excreted as commercial formalin with a formaldehyde content of 37-50 wt%. and methanol 0.5-1.5% of the mass. "The amount of absorbent supplied for irrigation depends on the specified concentration of formaldehyde in formalin. From the top of the absorber, waste gas leaves, containing, among other products, about 1.5% (vol.) Of carbon monoxide. 70-75% (vol.) Of offgas is returned back to the process, the rest of the offgas is emitted into the atmosphere, or sent to catalytic afterburning ". The main purpose of the latter is to neutralize carbon monoxide and formaldehyde.

Virtually on all formalin plants has place adiabatic fractionating solutions of formaldehyde at a predetermined pressure, which is accompanied by the formation of azeotropes. The composition of the latter is determined by the parameters of the process. At atmospheric pressure, the azeotrope contains approximately 20% formaldehyde, while at a pressure of 0.5 MPa from 50 to 70% of the mass. The kinetic reactions of solvation and polymerization occurring in an aqueous solution of formaldehyde determine the results of the rectification process, and equilibrium is achieved very rarely.

50% formaldehyde solution with a small amount of methanol, not containing stabilizing additives may remain unchanged to within approximately 25 days at 60° C.

For this reason, strong formalin is not transported over long distances, but rather to be processed on site.

The dependence of the duration of storage of formalin on the content therein of formaldehyde and methanol is very important for the manufacturers of this product and is presented in Table 1.

Table 1 . - Minimum temperature storage formalin in dependence on the contents in it of formaldehyde and methanol

Formaldehyde concentration , % masses.	thirty	37	37	37	37	43	fifty
Methanol content , % wt.	one	one	7	ten	12	one	one
Minimum storage temperature , ºC	7	thirty	21	7	6	55	65

"In aqueous solutions containing more than 40% (mass.) Formaldehyde, in the process of boiling, the distillation temperature gradually rises.

It varies from 103 ° C for 50% formalin to approximately 113 ° C for 80% formalin. The latter solidifies upon cooling in the form of a thick paste, consisting of polyoxymethylene glycols, which is difficult to dispose of " [1].

These facts are in good agreement with the data presented in Table 2. It illustrates the relationship between the boiling point of formaldehyde solutions and the value of the partial pressure.[6 pp 6]
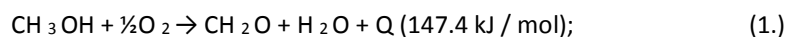
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Table 2. - Low boiling solutions of formaldehyde and of the partial pressure

The approximate I (average) concentration of the CH_2O solution , %	Fluctuation of concentration during distillation, %	P_{total} , mm Hg (kPa)	Temperature in a cube, º C (K)	Concentration of CH_2O in distillate ,%	Formaldeg ida pr essuremm Hg. Art. (kPa)
one	2	3	four	five	6
20	19.3-19.4 19.4-19.4 20	756 (100.0) 756.5 (100.6) 760 (101.3)	100.9 (373.9) 100.9 (373.9) 100.9 (373.9)	17.9 18.2 18.0	90 (12.0)
40	37.9-38.7 38.7-39.4 40	759 (101.2) 759 (101.2) 760 (101.3)	101.6 (374.6) 102.0 (375.0) 101.8 (374.8)	27.6 27.7 28.0	142 (18.9)
fifty	49.9-51.2 51.2-51.6 fifty	745 (99.3) 745 (99.3) 760 (101.3)	102.7 (375.7) 102.9 (375.9) 103.2 (378.2)	34.0 34.5 34.0	175 (23.3)
60	59.3-60.2 60.2-6 60	739 (98.5) 739 (98.5) 760 (101.3)	103.2 (378.2) 103.1 (378.1) 103.9 (379.9)	38.1 38.2 38.0	203 (27.0)
70	68.3-69.9 69.9-70.2 70	748 (99.7) 748 (99.7) 760 (101.3)	107.0 (380.0) 107.3 (380.3) 107.5 (380.5)	41.5 42.4 42.0	229 (30.5)
80	81.5-82.5 82.5-83.0 80	742 (98.9) 742 (98.9) 760 (101.3)	113.0 (386.0) 114.5 (387.5) 112.5 (385.5)	48.1 49.6 48.0	267 (35.5)

The difference extracting process formaldehyde and methanol from the product of the reaction obtained on metal oxide catalysts, as compared to metallic catalysts consists in the fact that in the first case the concentration of formaldehyde and methanol is considerably lower, and the water vapor is much greater. This is due to the fact that the hydrogen released during the oxidation if methanol is converted into water, and in he method with metal catalysts - about half.

The own content of formaldehyde and methanol and the high concentration of water vapor makes it difficult to absorb and obtain concentrated formalin, however , it makes it possible to obtain a product with an improved complex of properties. [7 pp 244] "The first industrial production of formaldehyde from methanol with the use of metal catalysts has

been organized almost simultaneously in several countries in the 1955-60 years. By this time the chemical technology has reached the level of development of a large and manufactured equipment allowed the floor Nosta automate pozharovzryvo dangerous technological process[3].

CONCLUSION

All current installations for obtaining formalin, as far as the publications in the literature can be judged, are quite close to each other in terms of schemes and hardware design. Basically, they differ in the methods of cooling the reaction products and the use of the exothermic heat of the chemical process, as well as the methods of obtaining the working mixture and the instrumentation of the individual stages.

According to the composition produced by formalin and specific costs of methanol and energy big difference between well installations there. The composition schemes technological process of preparation of formalin with using the metal catalyst includes three basic steps: - obtaining an air-off-gas methanol - containing working mixture;

- catalytic conversion of methanol to formaldehyde;

- absorption of the formed formaldehyde and unreacted methanol from the reaction products .

There are installations where the extraction of formaldehyde is carried out simultaneously with water and an aqueous solution of urea to obtain formalin and urea-formaldehyde concentrate.

Different developers offer different methods for the implementation of the main and additional stages of the formalin production technology and different hardware design.

In particular, obtaining a working alcohol-air mixture can be achieved by evaporating methanol and mixing its vapors with a heated mixture of air with offgas, adiabatic evaporation of methanol in scrubber-type devices, or by injecting methanol into a heated air - offgas mixture with mechanical nozzles. Cooling of the reaction products is carried out in a shell-and-tube heat exchanger with water with its evaporation or with a mixture of air with exhaust gas, and then with a working mixture. Cooling of the catalyst in a tubular reactor in most cases is carried out by a liquid or an evaporating coolant. There are other modifications of this stage of the process.

As stated previously, the technological process of producing formaldehyde from methanol on metal oxide catalysts carried on continuously operating plants in the three types of reactors ideal displacement:

1) tubular with cooling of the catalyst in tubes;

multilayer of Multi, many sectional bulky apparatus with cooled product of the reaction between layers of the catalyst;

2) combined with a shortened tubular part and one catalyst bed located in a bulk reactor. [20 pp 277]

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Professional Competency Self-Efficacy of Undergraduate Environmental Studies Students: A Case Study of Gender Differences and Longitudinal Change

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ABSTRACT: Business leaders and political leaders have asked institutions of higher education to improve graduates' cognitive and affective skills, sometimes referred to as "soft skills", personal competencies, professional competencies, "21st century skills" or 21st century competencies. As a result of their importance, demands for these skills in the workforce, and increased pressure to be accountable, higher education is challenged to assess student achievement and performance related to these competencies. The goal of this paper is to investigate the longitudinal changes in relative self-efficacy of undergraduate environmental students across three domains of professional competencies – cognitive, intrapersonal and interpersonal. More specifically, the objectives are to: 1. Examine the extent to which there are differences in self-efficacy for male and female students in an environmental studies program; 2. Assess the extent to which self-efficacy of the environmental studies students change over the time they are involved in the undergraduate program and their relationship to learning outcomes.

An examination of pre-program self-efficacy data indicate statistical differences between males and females that are consistent with social role theory that posits that gender traits are developed as a result of the differential roles that women and men occupy in society. The observed statistical differences between males and females based on effect size are generally maintained between pre- and post-program data for the unpaired data. However, differences in the effect size of five competencies between pre- and post-data suggest that the impact of the educational experiences for male and female students is different.

A comparison of the pre- and post-scores for paired female data indicate that overall female self-efficacy showed a general increase for 18 of 23 competencies. Statistically significant increases in female-student confidence in their abilities occurred in continuous learning, employee development, presenting, diplomacy, and written communication. Paired pre-post male data indicate that overall male self-efficacy for 19 of 23 competencies increased. Statistically significant increases in male-student self-efficacy occurred in employee development/coaching and diplomacy. Increases in self-efficacy data supports the contention that development of 21st century competencies is occurring as the students actively engage in activities where they can practice these skills.

KEY WORDS: Assessment, Professional Competencies, soft skills, 21st century skills, Self-Efficacy, Effect Size, Gender Differences

INTRODUCTION

The success of students who graduate from an institution of higher education, whether they go into the workforce or continue their education, is a function of the extent to which they have acquired various skill sets. One set of skills for which business leaders and political leaders have asked institutions of higher education to improve in their graduates are a broad set of cognitive and affective skills. These skills referred to as "soft skills", personal competencies, professional competencies, "21st century skills" or 21st century competencies (NRC 2012; Partnership for 21st Century Skills, 2009). Robles (2012, p. 457) described these skills/competencies as "character traits, attitudes, and behaviors—rather than technical aptitudes or knowledge." These skills include among others, the abilities to innovate, create, solve complex problems, think critically about tasks, effectively communicate with diverse audiences from diverse backgrounds, collaborate with others, adapt to dynamically changing work environments, and continuously learn. These skills/competencies are broadly applicable and transferable across all professions to varying degrees. They are foundational to a person's abilities to effectively use their intellectual and technical skills. These

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attributes help workers adapt to new jobs, overcome obstacles, develop productive relationships internally and externally to the organization, and overall thrive in the workplace.

The extent to which a person can successfully employ professional competencies is related to a person's self-efficacy. A person's self-efficacy, sometimes referred to as confidence, is their belief in their "capabilities to mobilize the motivation, cognitive resources and courses of action needed to meet given situational demands" (Wood and Bandura 1989). Self-efficacy does differ from mere confidence as it emphasizes taking a course of action rather than simply holding an opinion or belief (Woolcock et al 2016). The extent to which a student believes they have the capabilities to accomplish a task or use a skill plays an essential role in determining their level of success (Zimmerman 2000).

The goal of this paper is to investigate the relative self-efficacy of undergraduate environmental students across three domains of professional competencies – cognitive, intrapersonal and interpersonal. More specifically, the three main objectives are: 1. Examine the extent to which there are relative differences in self-efficacy for male and female students in an environmental studies program; 2. Assess the extent to which self-efficacy of the environmental studies students change over the time they are involved in the undergraduate program; and 3. Evaluate these data in the context of program learning outcomes.

BACKGROUND

Institutional Setting and Program Overview: The Environmental Studies Program at the University of Nebraska – Lincoln, which is a Land Grant Institution and Carnegie-classified research university with very high research activity and high undergraduate enrollment, is jointly owned and operated by the College of Arts and Sciences (CAS) and the College of Agricultural Sciences and Natural Resources (CASNR). To graduate from the Environmental Studies program, students take 120 student credit hours (SCH) that include 13 SCH in six core courses in Environmental Studies (ENVR). Table 1 provides the program goals and learning outcomes for the program. If these overarching outcomes are achieved, program graduates will be: conversant in the issues and demands of global society; prepared to meet the needs of employers who want employees that possess relevant workforce competencies; and able to work across disciplines.

In the core curriculum, students have multiple opportunities to address the program's learning outcomes (Table 2). They practice critical thinking and problem-solving to develop creative solutions for complex environmental challenges with a specific emphasis on sustainability solutions. To facilitate the development of professional competencies and systems thinking, pedagogical approaches, and high-impact educational practices are used that promote student independence, self-directed learning, and self-reliance. More specifically, the Environmental Studies program incorporates all six high impact practices identified by the National Survey of Student Engagement as important, either directly (Service-Learning, Research with Faculty, Internship/Field Experience, Culminating Senior Experience) or indirectly (Study Abroad, Learning Community), into its students' undergraduate experience. During their culminating two-semester senior thesis capstone sequence of ENVR 499a and b, each student uses critical thinking and problem-solving skills, employs writing and presentation skills, and practices professional skills to generate a creative or scholarly product, referred to as a senior thesis.

The program also requires a set of collateral courses that includes instruction in Earth systems including climate, ecology, Earth and energy resources, soil resources, and water resources; geospatial science including GIS, GPS, and/or remote sensing; statistics; and human dimensions including sociology, anthropology, ethics and law, resource management and leadership, economics, and policy. These collateral courses provide Environmental Studies students the opportunity to follow developmental pathways towards becoming a professional who understands the language of other disciplines and has learned to interact effectively and creatively with those in other fields. Soule and Press (1998) refer to this as students becoming "inter-disciplinarians."

Table 1. Program goals and learning Outcomes for the Environmental Studies Program at the University of Nebraska-Lincoln.

Program Goals
Upon graduation, students will
Goal 1. possess the necessary knowledge and skills to be successful in the job market, the pursuit of a graduate degree, and working across disciplines.
Goal 2. have broad-based knowledge in the natural sciences, social sciences and the humanities as well as strength in a specific discipline.
Goal 3. make reasoned and informed judgments about contemporary environmental issues from an interdisciplinary perspective using sustainability as framework to connect humans to the living and physical environment.

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Learning Outcomes

L.O. 1. Explain and apply appropriately the systemic principle of sustainability for the development of solutions to environmental and natural resource issues.

L.O. 2. Organize, plan, and satisfactorily complete a senior project through scholarly creativity and/or in-depth research that uses appropriate technical knowledge, field, laboratory, geospatial, and/or social science research methodologies.

L.O. 3. Demonstrate the ability to critically assess environmental and sustainability issues from the local to global scale considering a range of perspectives.

L.O. 4. Identify, explain, and evaluate problems/questions/issues using relevant data, resources, and reasoning to form carefully considered conclusions.

L.O. 5. Communicate effectively to a range of audiences through the preparation of written documents along with oral and visual presentations that are consistent with professional standards.

L.O. 6. Describe the Earth's four major spheres: land, water, living things, and air in the context of physical, geological, and biological processes; their variability over space and time; and the extent to which humans influence them.

L.O. 7. Effectively work in teams and groups from various backgrounds and perspectives to address environmental challenges.

L.O. 8. Demonstrate improvement in professional and interpersonal skills such as collaboration, critical thinking, problem solving, empathy, and teamwork to effectively operate in society and the professional world.

Table 2. Summary of Environmental Studies courses (ENVR), credit hours, and learning outcome

Course	Credit Hours	Learning Outcome
ENVR 101 Environmental Studies Orientation	1	5,6,7
ENVR 201 Science, Systems, Sustainability and the Environment	3	1,5,6,7,8
ENVR 249 Individual and Cultural Perspectives of the Environment	3	2,6,7,8
ENVR 319 Environmental Engagement in the Community	2	4,5,6,7,8
ENVR 497 Internship in Environmental Studies	1	3,4,8
ENVR 499 Senior Thesis	3	3,4,5,8

Professional Competencies: The term competency, as used by the National Research Council (NRC 2012), and throughout the remainder of this paper, is consistent with its use in the professional human resources literature. The term is a way of talking about what helps people get results in their jobs and referencing skills or knowledge that lead to superior performance. Competencies are measurable characteristics that are used to differentiate levels of performance in a given job, role, or organization.

The National Research Council (NRC, 2012) developed a classification scheme for professional competencies consisting of three broad, but overlapping, clusters that include cognitive, intrapersonal, and interpersonal domains. The cognitive domain involves reasoning and memory; the intrapersonal domain involves the capacity to manage one's behavior and emotions to achieve one's goals; and the interpersonal domain involves expressing ideas, and interpreting and responding to messages from others (NRC 2012). Research on teaching and learning has illuminated the importance of cognitive and affective competencies on learning of academic content (e.g., NRC, 2000) and how to develop these valuable supporting skills (e.g., Yeager and Walton, 2011). Research indicates that young people who apply and develop intertwined cognitive intrapersonal, and interpersonal competencies in the process of deeper learning are better prepared for adult success (NRC 2012). A primary product of deeper learning is the ability to know how, why, and when to use and transfer knowledge that includes content knowledge to answer questions and solve problems.

The NRC (2012) emphasized the importance giving young people the opportunity to apply and develop their cognitive, intrapersonal, and interpersonal competencies as part of the process of deeper learning that, in turn, better prepares them for success in the workforce. The use of the term "soft skills" for these competencies is really a misnomer in that in many ways they are more difficult to acquire than knowledge and technical skills. These competencies are not fixed. They are developed through years of practice.

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Researchers have identified a variety of competencies that should be incorporated into learning goals for students when training them to productively contribute to interdisciplinary and transdisciplinary team research and workforce efforts (NRC 2015). Vincent and Focht (2010) indicate that employers of graduates from environmental programs highly value skills related to interdisciplinary teamwork, critical thinking, problem solving, communication, planning, and management. From their analysis, these skills "may actually be more important than substantive knowledge, though knowledge of environmentally relevant natural sciences and sociopolitical disciplines are undoubtedly important." Crawford et al. (2011) indicated that 21st century competencies, for which they use the term "soft skills," are ranked as being more important than discipline knowledge among alumni and employers. Weik (2011, 2015) identified inter- and intrapersonal competencies as critical for sustainability professionals. Boone et al. (2020) indicate the importance of professional competencies such as collaborative leadership, vision beyond status quo (i.e., futuristic thinking), communication to multiple audiences, and perseverance to participants in interdisciplinary and transdisciplinary projects.

As a result of their importance, demands for these skills in the workforce, and increased pressure to be accountable, higher education is challenged to assess student achievement and performance related to these competencies. Higher education finds itself in a modern business world that follows the basic premise of Peter Drucker, to whom modern business management is attributed, that is "If you can't measure it, you can't improve it." Becker et al. (2017) report that as a result of growing trend in higher education to measure learning and competency, a wide variety of methods and tools are being examined as to evaluate and measure learning progress, skill acquisition, and other educational needs of students. These authors indicate that societal and economic factors will continue to redefine what skills are necessary for success in today's workforce. As a consequence, higher education must rethink how to define, measure, and demonstrate not only subject mastery, but the acquisition of professional competencies.

The development of assessments for professional competencies is complex and challenging on a number of levels (Shavelson 2010; NRC 2011; Lai and Vering 2012). For example, the multiplicity of names for interpersonal skills leads to complications in defining the construct, that is, the type of knowledge, skill or ability that an assessment is designed to measure (Fiori, noted in Koenig et al. 2011). Shavelson (2010) illustrated that measuring competency constructs needs to involve observations of tasks using standards of performance, standardized across individuals consistent with the "real-life" domain of knowledge, social expectations and interactions, and realistic time frames during which the competency will be performed.

Because of the complexity of assessment development and implementation, the tools necessary to assess the extent of skill/competency acquisition are not necessarily in a format that meet the criteria that higher education use to select assessments (Klein et al, 2006). These criteria include, but are not limited to, cost and ease of administration, alignment of the assessment with the educational outcomes of the institution/academic unit, the technical qualities of the assessment, the expertise to prepare assessments, or the time and expertise to analyze and use these data.

As is the case with many academic programs, especially small ones, the UNL Environmental Studies program is limited in terms of its capabilities to assess these professional competencies. The program has used an action research approach to our assessment activities in which we use reflective practice to gain insight into student learning experiences. To help us reflect on the abilities of our students to acquire relevant professional competencies, a partnership with TTI Success Insights (TTISI was forged and their Personal Soft Skills Indicator™ questionnaire described below) employed to document the self-efficacy of UNL's Environmental Studies students as a proxy for the extent to which students have acquired professional competencies.

Self-Efficacy: Self-efficacy "is defined as one's perception of his/her ability (i.e., confidence) to successfully perform a task or behavior" (McCoach et al. 2013 simplified from Bandura 1986). A person's ability to perform skills to achieve certain tasks depends largely on their judgment as to how well they expect or anticipate to perform. The extent to which a student believes in their academic capabilities is a key motivational factor related to student performance. In essence, if an individual's expectations that they can perform certain skills are positive, this positively contributes to the actual physical, social or self-evaluative outcomes (Bandura 2006). Zimmerman (2000) noted that self-efficacy beliefs play an important role in mediating students' performance and academic achievement. Academic self-efficacy is a reliable predictor of student achievement (Richardson et al 2012). Huang (2013) documents that students with high self-efficacy perform better than those with low self-efficacy because they typically take mastery approach to setting goals (Huang, 2013). Individuals with high self-efficacy not only put more effort into their learning (Galla et al., 2014), but are also more persistent when confronted with adversity (Zeldin and Pajares, 2000). Students, who have high self-efficacy, choose tasks that are hard and challenging to comprehend and also try as much as possible to employ actions to achieve learning goals more than those with low self-efficacy (Augistiani et al. 2017). The basic premise of our approach is that self-efficacy is a first-order proxy for the extent to which someone has obtained a given competency.

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The development of a person's self-efficacy related to a specific competency is the result of a complex interplay of experiences that Bandura (1986) placed into four categories. These are mastery experiences, vicarious experiences, social persuasion and people's own physiological states in estimating their capabilities. According to social cognitive theory (Bandura, 1997), there should be gender differences in confidence and related self-beliefs. The development of self-efficacy in females is influenced more strongly by vicarious experiences and social persuasions while mastery experiences are a more significant source of self-efficacy in men (Espinosa et al., 2019, and references, there in). It is well established that self-efficacy is correlated with academic achievement, task persistence, motivation, and resilience (e.g., Bandura, 1986; Pajares, 1996; Komarraju and Nadler, 2013). Papyrina et al. 2020 reported that female students have higher self-efficacy than male students in interpersonal skills, friendly/outgoing personality and organizational ability. On the other hand, male students have higher self-perception of competence in problem-solving, analytical/ quantitative, technical and computer skills. No gender differences in confidence were found in leadership, initiative, strategic planning and entrepreneurial skills. In a study of biology students, Ainscough et al. (2016) indicated that overall female students were significantly less confident than males. Moreover, high-achieving female students were more likely than males to underestimate their academic abilities.

According to social role theory (SRT), a person's perception and self-concept (i.e., self-efficacy) of themselves are in large part gender-stereotypical (Eagly and Wood, 2012). SRT posits that gender-related traits and roles originated historically because of inherent biological differences - men's strength led to their roles as hunter, farmer, worker, and eventually, leader. Women reared children and maintained home life. Because of these different roles, women generally developed more communal traits whereas men have more agentic traits. Communal traits are orientated towards participation of the individual as part of an organization and agentic traits are focused on the existence of the individual (Abele 2014). Communal traits include nurturing, empathy, kindness, openness, compassion, sensitivity, etc. These are consistent with successful caring for others. Agentic traits include aggressiveness, competitiveness, achievement- orientation, individualism, and determination consistent with the male role as hunter, farmer, worker, and eventually, leader. These traits as men and women are reinforced by the process of socialization that creates behaviors traditionally associated with their sex (Eagly and Wood, 2012).

The goal of this study is to *i*nvestigate the relative self-efficacy of undergraduate environmental students across three domains of professional competencies – cognitive, intrapersonal and interpersonal. More specifically, the objectives are to: 1. Examine the extent to which there are differences in self-efficacy for male and female students in an environmental studies program; 2. Assess the extent to which self-efficacy of the environmental studies students change over the time they are involved in the undergraduate program and their relationship to learning outcomes.

METHODS

Procedures: The UNL-Environmental Studies program uses TTISI's TriMetrix® DNA instrument to assess the personal attributes of the students using self-report data (Gosselin et al. 2013. The first two parts of the instrument assesses the behavioral characteristics and motivational drivers for the student. The third part, which is the focus of this paper, uses the Personal Soft Skills Indicator™ (PSSI) questionnaire to document the self-efficacy to which people feel they have acquired specific personal competencies. The PSSI construct is consistent with the description of other instruments that assess self-efficacy (Bandura 1997, 2006). Self-efficacy scales typically measure people's beliefs in their capabilities to fulfill different levels of specific demands of a task. The PSSI assesses 23 competencies that are summarized and categorized in Table 3 using the three domains defined by the National Academy of Sciences (NRC, 2012).

The PSSI is an online instrument that consists of three sections and takes approximately 30 to 45 minutes for the students to complete on their own time. The first section is a dichotomous selector (checkbox) asking the respondent to associate with as many or as few of the items related to the various competencies as he or she wishes. The second section is in Likert format, consisting of 42 items related to the extent to which the respondent thinks of him/herself. The third section has 50 items using a Likert scale to assess the extent to which the respondent perceives he or she is viewed by others.

The goal of the Environmental Studies program is to acquire longitudinal data on UNL environmental students. The pre-program assessment is completed as part of a one credit, one semester orientation course (ENVR 101). The report students receive provides information that helps them understand their own strengths and personal attributes. In essence, they improve their knowledge of self. As part of the senior capstone course, ENVR499, each student takes the assessment again. These data are referred to as post-program. Participation in these assessment activities is part of their regular course activities; however participation in the research component is voluntary and students can opt out if they desire at any time.

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Validity and Reliability: Established in 1984, TTI Success Insight's assessments have been translated into 40 languages and are used in 90 countries. Bonnstetter and colleagues have administered over 10 thousand TriMetrix DNA assessments related to engineering and medical education (e.g., Bell et al., 2011, 2012; Pistrui et al. 2011, 2013). As part of this work, Dietrich (2012) examined the internal consistency of the 23 competencies and found the Cronbach's Alpha to generally exceed 0.80. TTI conducts 360-degree feedback surveys to assess the perception of others on an individual's evidence-based competencies. Feedback from 7000 surveys indicates that each question in the survey captures the range of responses from the minimum to the maximum choice, which supports the validity of individual questions (TTISI 2013).

As is the case with any self-report instrument, there are several biases that can influence the self-report measures. Gosselin et al. (2103) provides an overview of the biases as summarized from Bedwell et al. (2011). They indicate that consistency motif and self-serving bias may contribute to the scores overestimating the student's abilities to some extent; however, these biases become minimized when comparing pre- and post-program data as it is change, not absolute score characteristics, that are being evaluated. Self-reports have limitations, but they are outweighed by the benefits to the program that include a better understanding of where students are starting from in terms of their self-efficacy and the extent to which the students have grown throughout their undergraduate experience.

Data Sets: In this paper, two data sets were used (Table 4). Data set 1 includes data for male and female students who completed the PSSI assessment from Spring 2009 to Spring 2019 either pre and/or post-program. These data in set 1 are unpaired and examine the differences between male and females. Data set 2 is a subset of data set 1. It includes only data from students who completed the assessments both pre- and post-program. These data assess longitudinal changes from when students entered the program through the orientation course (pre-program) and completed their senior thesis (post-program). The maximum score for each of the 23 competencies using the PSSI instrument is 10.

Table 4. Number of respondents to PSSI survey.

Data Set 1: Unpaired	Pre	Post	Total
Males	97	132	229
Females	103	124	227
Data Set 2: Paired			
Males	79	79	186
Females	107	107	

Statistics and Data Analysis: Although the Shapiro-Wilk (SW) test indicated that these data for individual competencies generally followed normal distributions, some did not. For the sake of completeness results from both parametric and non-parametric tests were chosen to examine differences between the pre- and post-program samples groups. The non-parametric tests are valid over a broader range of situations in that they do not require specific assumptions of normality to be met. For a comparison of means, Welch's T-test were used for the unpaired and paired data, respectively. A non-parametric comparison of the unpaired pre- and posted data were assessed using the Mann-Whitney U test and the Wilcoxon-Sign Ranked Test, respectively. The null hypothesis for these tests is basically that the two samples come from the same population (unpaired) or whether observations post-program tend to be larger than pre-program observations (paired). These tests for statistical significance and their associated p-values tell the reader that the difference found between groups is unlikely to be caused purely by chance. The outcomes are a function of sample size and do not say anything about the magnitude or practical relevance of a result. p-values <0.05 are considered to be statistically significant. p-values between 0.5 and 0.10 are referred to as marginally significant.

As recommended by the American Psychological Association, effect sizes are provided to provide a quantitative measure of the magnitude of the interventions effect (Fritz et al. 2012). In this case, the intervention is the educational experience that the student received during the pre- and post-program assessment or the extent to which a characteristic such as gender differences have an effect. The effect size provides a measure of "the size of the effect" from the intervention rather than pure statistical significance. Effect sizes indicates the average change in scores in the context of standard deviations. For example, an effect size of 0.20 indicates that an instructional intervention increased students' scores by 0.20 standard deviations. Two effect size calculation are provided. See Table 5 for details of calculations used. The effect size referred to throughout the remainder of the paper will be Cohen's D.

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For the paired data, the effect size is computed as the difference between the means for the same student tested pre- and post-program. They thus estimate the average change in student self-efficacy from pre- to post-program. The unpaired data provides an overall comparison of the self-efficacy characteristics of the males and females entering the program versus when they graduate from the program. The full representation of the intervention effect, therefore, is not simply the difference between the males and females as an outcome measure at post-program, but the differential change between pre-program and post-program on that outcome. The measure of the differential change is provided as the adjusted effect size in the last column of the unpaired data table. By showing effects as differential change, the approach reveals patterns of improvement or decline that characterize the two groups as a whole (Durlak 2009; Lipsey et al. 2012). Different patterns of differential pre-post change depict different trajectories for what the intervention accomplished.

RESULTS

Data Set 1 – Unpaired data: Table 5 provides the mean scores from males and females, mean difference, Wilcoxon Ranks Sum variables, Welch's T-test p-values and effect size (Cohen's D) for the unpaired data. These data are used to collectively examine similarities and differences between males and females. Among the five cognitive scales, females had statistically significant higher planning and organizing scores than males along with an effect size of 0.30. Whereas, males had significantly higher scores for decision-making and an effect size of 0.52. For the intrapersonal scales, males were significantly more confident in their personal effectiveness than the females with an effect size of 0.57. For the 13 interpersonal competencies, females had significantly higher scores for four competencies (employee development/coaching, diplomacy, customer service, and empathy) for which the effect sizes were 0.26, 0.25, 0.27, and 0.41 respectively. Males had statistically higher scores for two interpersonal competencies – management and negotiation having effect sizes of 0.48 and 0.47, respectively. Persuasion was marginally significant for males having higher scores than females and an effect size of 0.23.

The noted differences between males and females in the pre-unpaired data maintain themselves in the post, unpaired data. However, males become more confident in their abilities to manage conflict, self-manage, and persuade others when compared to females having effect sizes of 0.37, 0.31, and 0.33. Females become more confident with respect to their written communication abilities than males that are reflected in their effect sizes of 0.36.

The adjusted effect sizes reflect the extent to which there has been a differential change between two groups over time (Durlak 2009). An adjusted effect size value close to zero indicates that the differences between male and female have maintained themselves after the educational intervention. Positive adjusted effect scores indicate that the differential change favored female students. Negative adjusted effect scores indicate that the differential change favored male students. Of the seven competencies that showed an adjusted effect over 0.20 standard deviations, the three that favored females (creativity/innovation, management, personal effectiveness) are the competencies for which the average scores of the males dropped by 0.1 to 0.3 points, while the average female scores increased by 0.1 points. For the other four competencies (self-management, interpersonal skills, customer service, and conflict), the adjusted scores coincide with 0.3 to 0.8 point increases in average scores for the males while the corresponding female scores dropped by 0.1 points or increased marginally by 0.1 units.

There are eight other competencies that have adjusted effect scores between 0.1 and 0.15 standard deviations. Six (presenting, persuasion, analytical problem solving, continuous learning, flexibility, and leadership) have greater differential change in the scores of males relative to females. The differential changes are reflected in the greater positive change in average scores from pre to post for the males (0.2 to 0.7) when compared to females (-0.1 to +0.4). Differential effects in written communication and goal orientation favored the female students. Average change in scores for written communication indicated an increase of 0.6 points for females compared to a corresponding increase for males of 0.3 points. For goal-orientation, male average scores dropped by 0.1 unit while females increased by 0.2 units.

Data Set 2– Paired data: Table 6 provides paired pre- and post-data for all male and female combined (n = 186), female only (n = 107) and male only (n = 79). These samples are a subset of data set 1 in which each student has a matched set of values for pre- and post-program data. The purpose of these data is to more specifically examine the magnitude of the changes that have occurred for the entire group and by gender. These data include mean scores, standard deviations, mean difference, Wilcoxan ranks statistics, p-values, Student's T-test for matched pairs and effect size (Cohen's D). For the combined data (n = 186), the T-test indicates eight competencies have statistically significant improvement in the mean differences of 7 to 18 percent change in analytical problem solving, futuristic thinking, continuous learning, employee development, presenting, diplomacy, leadership, and written communication. Effect sizes range from 0.13 to 0.38 in which employee development (0.38), diplomacy (0.35), and continuous learning (0.25) have the largest changes.

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A comparison of the pre- and post-scores for paired female data indicate that overall female self-efficacy showed a general increase for 18 of 23 competencies. Statistically significant increases in female-student confidence in their abilities occurred in continuous learning, employee development, presenting, diplomacy, and written communication. Percent change increases range from 9.3 to 19.7%. Empathy had a marginally significant improvement of 9.7 percent. A comparison of pre- and post-scores for paired pre-post male data indicate that overall male self-efficacy for 19 of 23 competencies increased. Statistically significant increases in male student confidence in their abilities occurred in employee development/coaching and diplomacy for which mean scores increased by 16.7 and 16.3 percent, respectively. Marginal statistical improvements at the $p < 0.10$ level were noted for continuous learning (7.4% increase), presenting (16.5%), leadership (17.5%), and conflict management (10.5%). Two competencies, management and negotiation decreased by 5 and 7%, respectively, but these were not at a statistically significant level.

DISCUSSION

There have been many reviews regarding the use of effect sizes (Coe 2002, Kortlik and Willams 2003, Fritz et al, 2012, Lipsey et al. 2012; Kraft 2020). Fixed benchmarks have been presented by numerous scholars to characterize the effectiveness of an intervention. Cohen's classic work (Cohen 1969) proposed the following effect size benchmarks of 0.2 for small effect, 0.5 medium effect, and 0.8 large effect, which are commonly cited. Educational researchers have indicated that effect sizes around 0.20 are of policy interest when they are based on measures of academic achievement (Hedges & Hedberg, 2007). Kraft (2020) suggested effect size benchmarks for causal studies related to pre-K–12 education interventions of less than 0.05 are small, 0.05 to < 0.20 are medium, and > 0.20 are large.

Kraft's work among others, endorse the approach that the impact of an intervention should be compared to other studies having broadly comparable contexts. One with which to compare our data are upper level high school students. Lipsey et al (2012) showed effect size gains of less than 0.06 standard deviations on nationally normed standardized achievement tests for reading, math, science and social studies between the spring of eleventh-grade and the spring of twelfth-grade. In a meta-analysis of 40 effect sizes from 31 empirical studies, Niu et al. (2013) reported that the overall effect of instructional interventions on undergraduate college students' critical thinking skills yielded a general effect size of 0.21, with p-values less than 0.01. Niu et al. (2013) argue that what they refer to as small changes in their study are to be expected because improvements in thinking abilities are the result of cognitive growth which is a gradual and cumulative process that can be fostered over time. Considering that professional competencies, unlike some subject-based content knowledge, are developed over typically developed by learning, practice, and cognitive engagement over time, the so-called small effect changes relative to Cohen's class work are likely to be the rule rather than the exception. Depending on the context in terms of relative costs and benefits, an effect size of 0.1 could be a very significant improvement. In this study, an effect size of 0.1 represents an approximate change of 5 to 6 percent. From this point forward, the discussion will focus on gender differences and longitudinal changes in self–efficacy using a cutoff effect size of 0.1.

Self-efficacy for male and female students: A comparison of the average post-program scores for males and females (Table 5) to unpublished average workforce competency levels calculated from TTI archives for September 2013 to May 2019 – N (Male) = 76,404 and N (Female) = 60,460 – indicates that the average student scores for each of the 23 professional competencies are lower the average workforce mean (Figure 1a and b, Gosselin et al. 2013). This is not surprising because competency levels are not fixed and develop through practice. It is unrealistic to expect college-level students who have a limited amount of experience to be at or exceed a work force level of competency development. All these students are in the early phases of their careers and will have many opportunities to acquire these competencies.

Self-efficacy differences are expected to exist between males and females because there are general differences in the development of self-efficacy and related self-beliefs between men and women (Bandura, 1997; Eagly et al 2000). Huang (2013) conducted a meta-analysis of 187 studies containing 247 independent studies that examined gender differences in academic self-efficacy identified an overall effect size of 0.08 favoring males. However, an examination of general self-efficacy differences in studies of males and females for age groups 19-22 and older than 23, reported average effect sizes of 0.12 and 0.23, respectively.

Table 5 documents self-efficacy differences between males and female students as they enter environmental studies consistent with Huang's (2013) observations; However, there is significant complexity in the self- efficacy differences among students. Females have statistically higher self-efficacy related to their abilities to use systematic orderly procedures to meet objectives (planning and organizing); support the professional growth of others (employee development/coaching); utilize tact to handle difficult or sensitive issues in the context of the culture, climate, and politics of the organization (diplomacy); anticipate others wants, needs, and expectations (customer service); and identify with and care about others (empathy). These results are

consistent with Papyrina et al. (2020) who indicated that female business students reported higher self-efficacy than male students with respect to organizational ability,

Effect sizes between 0.26 and 0.42 standard deviations indicate strong differences between women and men. Males, on the other hand, are more confident than women in their abilities to effectively make decisions (decision making); demonstrate initiative, resiliency and a willingness to take responsibility for personal actions (personal effectiveness); achieve results through effective management of available resources (management); facilitate agreements between people (negotiation); and convince others to change the way they think, believe or behave (persuasion). Effect sizes between 0.48 and 0.57 standard deviations indicate even stronger differences between men and women for these characteristics.

The differences between the genders as students enter the program are consistent with social role theory that posits that gender traits are developed as a result of the differential roles that women and men occupy in society that originated out of biological differences (Eagly et al. 2000, Wood and Eagly 2012; Schneider and Bos 2019). An outcome of the development of these differential roles are gender-typical stereotypes. For example, results from Koenig (2018) replicated previous research on gender stereotypes concluding that women are communal and should avoid being dominant. Men should be agentic, independent, masculine in appearance, and avoid being weak, emotional, shy, and feminine in appearance. The characteristics of the five competencies for which the females have higher scores are consistent with communal traits that are typically community oriented and focused on bringing groups together. Communal traits are orientated towards participation of the individual as part of an organization (Abele 2014). The competencies for which males have higher scores are agentic traits. These traits are oriented towards independence focused on the success of the individual (Abele 2014).

The observed statistical differences between males and females related to these agentic and communal traits along with the associated effect size generally are maintained between pre- and post-program data for the unpaired data. However, females overall have higher self-efficacy in self-management (p<0.05, effect size = 0.31) and written communication (p<0.05, effect size = 0.31) post-program than males. On the other hand, males have higher self-efficacy in their abilities to persuade ((p<0.05, effect size = 0.33) and manage conflict ((p<0.05, effect size = 0.37) after completing the program. These differences suggest that the impact of the educational experiences for male and female students is different. Differences in the impact of educational experiences is further supported by an examination of the adjusted effect sizes. If the impact of the educational experience on the males and females were similar, the adjusted effect sizes would be around zero. Of the 23 competencies assessed, eight have adjusted effect sizes greater than plus or minus 0.2. For those having negative adjusted effect values (self-management, customer service, interpersonal skills, conflict management), the values reflect a positive increase in average self-efficacy scores (0.3 to 0.8) for males relative to change in pre- and post-scores for females of +/- 0.1. Interestingly, for the competencies that have adjusted effect sizes that are positive 0.2 or more, male scores drop and the female scores have a marginal increase of 0.1.

The overall impact of and differences between educational experiences are further illustrated by the pre- and post-matched pair data (Table 6). Self-efficacy related to continuous learning, presenting, employee/coaching, and diplomacy show statistically improvement collectively as well as for both males and females having overall effect sizes of 0.1, 0.19, 0.38, and 0.35, respectively. Collectively, as a group (n=186) self-efficacy related to interpersonal skills, analytical problem solving, and futuristic thinking statistically increased (p<0.5, effect size = 0.11 to 0.17) and teamwork marginally increased (p < 0.10). Collectively, self-efficacy for written communication and leadership significantly increased and empathy marginally increased. These differences were driven by more positive changes in female self-efficacy for written communication (effect size = 0.28) and empathy (effect size = 0.18). Positive change in male self-efficacy (effect size = 0.23) drove the leadership increase.

These data presented document differences between and growth in self efficacy between male and female students in an environmental studies program. Although some of our results regarding self-efficacy are similar to those presented by Papyrina et al. (2020) for business students, some are different as well. The source of actual differences between students, of course, result from factors associated with the characteristics of the students as well as factors and context associated with their academic and sociocultural experience (Petersen and Hyde 2014). Gender interacts with many other identities including race, culture, religion, (dis)ability, ethnicity among others. These data clearly indicate that the two genders bring in different levels of self-efficacy into their undergraduate experience. These levels are related to differences in their social cognitive development (Bandura 1996) as well as the gender stereotypes and gender socialization that society superimposes on them (Eagly 2000, Wood and Eagly 2012; Petersen and Hyde 2014).

The impact of the undergraduate educational experience may exacerbate the differences between genders and not necessarily reduce the differences. Differences are not necessarily a bad thing; however, if one is concerned about the development of gender equity it is important to consider the extent to which undergraduate curriculum is helping all students develop the competencies

and soft skills necessary to be successful in their future careers or is the educational experience contributing to the development of gender-stereotypes and implicit biases amongst its students without knowing it.

Application to Program Learning Outcomes: Goal 1 and learning outcomes 7 and 8 among others were specifically included in the program's learning goals and outcomes to recognize that while technical skills are important attributes a part of excellent educational curricula, success in the workforce requires university curricula to promote the development of professional competencies and soft skills. The importance of the development of "soft skills" and "professional competencies" to the future success of the environmental students is emphasized throughout the program whether they go to graduate school (10 to 15%) school or pursue other career pathway (85 to 90%). The lack of soft skills can sink the promising career of someone who has technical ability and professional expertise (Robles 2012). In Robles (2012), he refers to a study by Klaus (2010) that found 75% of long-term job success depends on people skills (i.e. soft skills), while only 25% is dependent on technical knowledge. Another study cited in John (2009) indicated that hard skills contribute only 15% to one's success, whereas 85% of success is due to soft skills. Our approach adds to the ongoing conversation in higher education regarding matching skills being taught to the skills required for their long-term success.

Following the "you cannot improve what you cannot measure" philosophy, our first-order proxy for the assessment of relevant professional competencies using pre- and post-program scores indicates that our students have grown during their time in the program. Examining changes in self-efficacy over time using the same instrument provides a mechanism to examine relative change over time. It is important to emphasize that no claim is being made that the actual level to which a student has obtained a specific competency is being measured. The basic premise is that the higher a person's self-efficacy, the greater likelihood that the student has or could obtain the competency. Self-efficacy plays a major part in determining the extent to which a student will be successful in obtaining a level of competency to be relevant in the workforce.

As a result of the educational program during their time at UNL, the self-efficacy of both male and female students has increased. The overall scores fall below the employer normative data, but this is to be expected considering that these students are very early in their careers and have time to grow. Relatively high scores for continuous learning are a foundation for optimism in that future environmental challenges, many of which we do not even know about, will require the willingness to undertake additional learning. The very low scores for decision-making and negotiation may reflect the lack of opportunities for decision making prior to and during their academic career. Futuristic thinking is a key competency for sustainability professionals (Weik et al. 2015) so the low scores for this competency are troublesome. It is clear that there is a need to create more opportunities to practice the skills of futuristic thinking, decision-making, and negotiation. Our data supports the contention that development of 21st century competencies is occurring as the student actively engages in activities where they can practice these skills.

LIMITATIONS

There are numerous limitations related to the instrument being a self-assessment (Bedwell 2011, Gosselin et al. 2013); However, when examining changes in self-efficacy over time using the same instrument, the goal is to examine relative change between pre- and post-scores. The comparison of pre- and post-program data is to document the extent to which the students have grown during their time in the program.

Another limitation is the lack of a control group to which to compare at UNL to assess the extent to which the Environmental Studies program has contributed to the changes in self-efficacy versus the contribution of their overall undergraduate experience both the formal and informal components. A related limitation is the variability superimposed on the data related to the duration of time the student has been in the program from when they enter to when they graduate. Some students may enter the program as a junior others enter as a new first year freshmen. Currently, a distinction cannot be made regarding the treatment that the students experience from the environmental studies program.

Although there are limitations, these are outweighed by the benefits to the program and instructors. These include: a better understanding of how information may best be delivered to students; explanation of the motivations behind student choices; and a framework that helps opens lines of communication in social settings, classroom interactions, work and even at home (Gosselin et al. 2013). The comparison of pre- and post-program data can be used to document the extent to which the students have grown throughout the program in the context of meeting future accountability criteria for higher education.

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Table 3. Definitions of the 23 competencies assessed using the TTI TriMetrix® DNA system and categorized using the domains identified by the National Research Council. (NRC, 2012; Gosselin et al. 2013)

Competency Domains (NRC, 2012)	TTI DNA Competencies and Definitions of the 23 Professional/Personal Soft Skill Competencies
Cognitive Competencies: n = 5	*Planning and Organizing* - Using logical, systematic and orderly procedures to meet objectives. *Analytical Problem Solving* - Anticipating, analyzing, diagnosing, and resolving problems. *Decision Making* - Utilizing effective processes to make decisions. *Creativity/Innovation* - Adapting traditional or developing new approaches, concepts, methods, models, designs, processes, technologies and/or systems. *Futuristic Thinking* - Imagining, envisioning, projecting and/or predicting what has not yet been realized.
Intrapersonal Competencies: n = 5	*Continuous Learning* - Taking initiative in learning and implementing new concepts, technologies, and/or methods. *Goal Orientation* - Energetically focusing efforts on meeting a goal, mission or objective. *Self- Management* - Demonstrating self control and an ability to manage time and priorities. *Flexibility* - Agility in adapting to change. *Personal Effectiveness* - Demonstrating initiative, self-confidence, resiliency and a willingness to take responsibility for personal actions.
Interpersonal Competencies: n = 13	*Employee Development/Coaching* - Facilitating and supporting the professional growth of others. *Presenting* - Communicating effectively to groups. *Diplomacy* - Effectively handling difficult or sensitive issues by utilizing tact, diplomacy and an understanding of organizational culture, climate and/or politics. *Management* - Achieving extraordinary results through effective management of resources, systems and processes. *Customer Service* - Anticipating meeting and/or exceeding customer needs, wants and expectations. *Interpersonal Skills* - Effectively communicating, building rapport and relating well to all kinds of people. *Leadership* - Achieving extraordinary business results through people. *Teamwork* - Working effectively and productively with others. *Conflict Management* - Addressing and resolving conflict constructively. *Empathy* - Identifying with and caring about others *Persuasion* - Convincing others to change the way they think, believe or behave. *Written Communication* - Writing clearly, succinctly and understandably. *Negotiation* - Facilitating agreements between two or more parties.

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NBC Domains	TTI Performance DNA Competencies		Unmatched Pre Male vs Female Statistics						Mean Difference						T-test		Unmatched Post Male vs Female Statistics						Mean Difference						T-test		Adjusted Effect Size
			Male N	Male mean	Male SD	Female N	Female mean	Female SD	F-M	U	z	p-value	Effect Size Z/		Unpaired p-value	Effect Size Cohen's D	Male N	Male mean	Male SD	Female N	Female mean	Female SD	F-M	U	z	p-value	Effect Size Z/		Unpaired P Value	Effect Size Cohen's D	Post - Pre Cohen's D
Cognitive Competencies n=5	Planning and Organising		97	4.3	1.1	132	5.0	1.3	0.7	5299	-2.230	0.026	0.15		0.023	0.30	103	4.3	1.2	124	5.1	1.4	0.8	5248	-2.314	0.021	0.15		0.011	0.33	0.03
	Analytical Problem Solving		97	4.0	1.1	132	4.1	1.1	0.1	6081	-0.649	0.517	0.04		0.656	0.06	103	4.4	1.7	124	4.3	1.8	-0.1	8236	0.365	0.761	0.02		0.773	-0.04	-0.10
	Decision Making		97	2.6	1.1	132	1.6	1.9	-1.0	4599	3.868	0.000	0.26		0.000	-0.53	103	1.7	2.3	124	1.6	1.9	-1.1	4438	4.094	0.000	0.27		0.000	-0.53	-0.02
	Creativity/Innovation		97	2.5	1.1	132	2.2	1.9	0.0	6473	0.060	0.953	0.00		0.894	-0.02	103	3.7	1.5	124	4.1	2.4	0.4	5795	-1.202	0.229	0.08		0.169	0.18	0.20
	Futuristic Thinking		97	2.5	3.3	132	2.0	1.9	-0.5	5722	1.387	0.166	0.09		0.092	-0.23	103	2.7	2.1	124	2.3	1.9	-0.3	5892	1.018	0.314	0.07		0.236	-0.16	0.03
Intrapersonal Competencies = 5	Personal Effectiveness		97	5.2	1.1	132	4.1	1.9	-1.1	4310	4.239	0.000	0.28		0.000	-0.57	103	5.0	2.2	124	4.2	2.1	-0.8	4934	2.952	0.003	0.20		0.005	-0.39	0.19
	Flexibility		97	2.7	2.4	132	3.7	2.4	-1.1	6547	0.112	0.912	0.01		0.068	-0.07	103	4.0	2.4	124	3.7	2.3	-0.3	5841	1.108	0.268	0.07		0.313	-0.14	-0.11
	Self-Management		97	1.9	2.5	132	3.7	1.9	-4.2	6105	0.682	0.548	0.04		0.606	-0.07	103	4.5	1.8	124	3.6	2.8	-0.9	5261	2.296	0.022	0.15		0.021	-0.31	-0.24
	Goal Orientation		97	5.6	2.0	132	5.7	2.2	0.1	6116	-0.578	0.564	0.04		0.654	0.06	103	5.5	2.1	124	5.9	2.3	0.4	5446	-1.798	0.089	0.11		0.150	0.19	0.13
	Continuous Learning		97	4.2	1.1	132	6.3	2.2	0.1	6191	-0.426	0.671	0.03		0.758	0.04	103	6.9	1.1	124	6.7	2.0	-0.1	5591	0.804	0.421	0.05		0.670	-0.04	-0.10
Interpersonal Competencies n=13	Employee Development/Coaching		97	4.6	1.1	132	5.1	2.0	0.5	5230	-2.371	0.018	0.16		0.053	0.26	103	5.5	2.0	124	5.9	2.2	0.4	5407	-1.992	0.047	0.13		0.118	0.21	-0.05
	Presenting		97	1.3	2.8	132	3.2	2.9	-0.2	6942	0.738	0.446	0.05		0.622	-0.07	103	4.0	1.1	124	3.5	3.0	-0.5	5742	1.310	0.190	0.09		0.214	-0.17	-0.10
	Diplomacy		97	2.0	2.0	132	4.8	2.8	0.6	5399	-1.067	0.839	0.14		0.059	0.25	103	5.0	2.2	124	5.5	2.0	0.6	5326	-2.158	0.031	0.14		0.048	0.27	0.02
	Management		97	5.4	1.5	132	4.7	1.5	-0.7	4812	3.218	0.001	0.21		0.001	-0.48	103	5.2	1.5	124	4.8	1.6	-0.4	5472	1.861	0.063	0.12		0.051	-0.26	0.21
	Customer Service		97	4.6	1.9	132	5.1	2.1	0.5	5973	-1.002	0.314	0.14		0.046	0.27	103	4.9	2.1	124	5.0	2.2	0.1	6253	-0.270	0.783	0.02		0.677	0.04	-0.21
	Interpersonal Skills		97	4.9	1.2	132	5.0	1.4	0.2	6224	-0.360	0.720	0.02		0.759	0.04	103	5.7	1.1	124	5.1	3.3	-0.6	5740	1.313	0.189	0.09		0.181	-0.18	-0.22
	Leadership		97	3.8	1.8	132	4.0	1.8	0.2	6034	-0.744	0.457	0.05		0.494	0.09	103	4.5	1.9	124	4.4	3.0	-0.1	8310	0.156	0.877	0.01		0.858	-0.03	-0.12
	Teamwork		97	5.5	1.9	132	5.2	2.1	-0.3	5890	1.115	0.265	0.07		0.273	-0.15	103	5.8	1.4	124	5.6	2.2	-0.2	8111	0.558	0.577	0.04		0.434	-0.11	0.04
	Conflict Management		97	4.2	1.1	132	4.1	1.9	-0.1	6061	0.285	0.776	0.02		0.588	-0.07	103	4.9	1.1	124	4.1	2.0	-0.7	4990	2.839	0.005	0.19		0.007	-0.37	-0.29
	Empathy		97	1.9	1.7	132	5.0	2.7	1.1	4926	-1.983	0.883	0.13		0.002	0.41	103	4.1	2.4	124	5.3	3.5	1.2	4719	-3.387	0.001	0.22		0.001	0.47	0.06
	Persuasion		97	4.1	2.7	132	3.5	2.8	-0.6	5540	1.743	0.082	0.12		0.087	-0.23	103	4.3	2.0	124	3.4	3.5	-0.9	5151	2.533	0.012	0.17		0.015	-0.33	-0.10
	Persuasion		97	4.1	2.7	132	3.3	2.7	-0.6	4926	-1.983	0.083	0.02		0.002	0.41	103	4.3	2.2	124	5.3	2.0	1.2	4719	-1.387	0.001	0.22		0.001	0.47	0.06
	Written Communication		97	4.0	1.6	132	4.6	3.0	0.6	5703	-1.412	0.158	0.09		0.105	0.21	103	4.3	2.6	124	5.2	2.5	0.9	5021	-2.773	0.006	0.18		0.007	0.36	0.15
	Negotiation		97	3.0	2.6	132	2.0	1.9	-1.0	4590	2.682	0.004	0.19		0.001	-0.47	103	2.9	3.5	124	1.8	2.2	-1.1	4395	3.867	0.008	0.26		0.009	-0.48	-0.01

A Preliminary Checklists of Birds for the Fura and Furagosa Wildlife Community Based Conservation Area, in Mirab-Abaya District, Gamo Zone, Southern Ethiopia

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ABSTRACT: The field visit was conducted during February 2021 with the aim to prepare a primary bird checklist in Fura and Furagosa community based wildlife conservation areas. Transect walk data collection method was employed. The record of bird list was presented in a descriptive statics. Thus, a total of 37 bird species were recorded during the survey time. Of the species recorded, 25 species were residents, 10 species Palearctic migrants and 2 Intra-African migrants. The survey suggests that further systematic studies of biodiversity are needed.

KEY WORDS: Migratory bird, Ecotourism, Conservation.

INTRODUCTION

Ethiopia has a large variety of indigenous plant and animal species. As of (2014) Ethiopian biodiversity institute report, there were at least 284 species of mammals, 861 species of birds, 201 reptile species, 200 fish species, 63 amphibian species 1225 arthropod(324 butterfly) species and over 6,000 species of plants throughout the country. The birdlife in Ethiopia is exceptional in East Africa, high number of species recorded with high endemism. According to Leapage (2021), 873 species recorded from Ethiopian IBAs from which 19 species are endemic to the country. However, there is a distinct lack of adequate knowledge of avifauna assemblages and their distributions across different habitats (EWNHS 1996). Most of the biological resources particularly wildlife's are concentrated in protected areas (IUCN, 1994). However, Ethiopia efforts have increased in establishments of national parks, wildlife sanctuary and reserves to gain environmental and economic benefits but the value obtained from the protected areas is very low (Solomon & Dereje, 2015). The lakes in the Great Rift Valley region abound with numerous species of birds, and wild animals are found in every region (Taylor and Tudorancea, 2002). From the common wildlife species like the leopard, cheetah, lion, civet, African bush elephant, bushpig, gazelle, antelope, ibex, kudu, dik- dik, oribi, reedbuck, Somali wild ass, Grévy's zebra, hyena, baboon, and numerous species of monkey are widely distributed in the rift (BirdLife International, 2021). Fura and Furagosa community based wildlife conservation area is part of the rift valley systems which the proposed community based conservation site comprises a distinctive habitat types and it is known for feeding and wintering grounds for many migratory birds.

Fura and Furagosa community based wildlife conservation area is found in Mirab Abaya that is one of the woredas in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia, Part of the Gamo Zone. Mirab Abaya is bordered on the east and south by Lake Abaya which separates it from the Oromia Region on the east and Arba Minch Zuria on the south, on the west by Chencha, on the northwest by Borena, and on the north by the Wolayita Zone. It has an elevation of 1100 to 2900 ms above sea level & average annual rainfall and temperature between 800-1600ml and 24-30ºC, respectively (Nigussie and Alemayehu , 2013; Direslgne *et al.,* 2016).

This community based wildlife area covers 25% of Abaya Lake and estimated over 5,691 ha area of land. The conservation area has around 11 unique islands and sticky mountains area and inhabits ample terrestrial and aquatic wildlife. Lake Abaya is part of the Main Ethiopian Rift is found in west side of this district town and east of the Guge Mountains range. The town of Arba Minch lies on its southwestern shore, and the southern shores are part of the Nechisar National Park. Just to the south is Lake

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Chamo; Savanna, known for its wildlife and birdlife, surrounds the lake, which is also fished by local people. This Lake is supplied by a major drainage system; the tributaries are the Bilate River from the north, the Gidabo and Gelana rivers from the east, and the Hare, Amessa and Basso rivers from the west (Direslgne *et al.,* 2016) . Adjacent to the lake there is agricultural field (banana farm) which is used to for local farmers as income and supplied for local market for users. The woodland surrounded all the rest is shown unique and very attractive scenic view when the area is looked from top to downwards (Figure 1).

Figure 1. Photo view of the part of Fura and Furagosa community based wildlife conservation area.

We conducted a primary field survey of birds in February 2021. Birds were recorded in a transect walk for the open wetland habitats and Abaya lake shoreline. In the woodland and agricultural field areas, slow-moving vehicle were employed to count birds along the habitats by rounding the area following the road paths. Active bird recording was conducted in the morning and afternoon two times field visit for each habitats for around six hours in 100 to 300 m sighting distance. The period of observation for each field work varied, based on the habitat types. Observations were aided by binoculars and photographs were taken for further identification of inconspicuous species.

The species checklist during the survey is provided in Appendix 1. According to Birdlife international(2001),*Aviceda cuculoides*, *Macheiramphus alcinus*, *Chelictinia riocourii*, *Gypaetus barbatus*, *Accipiter ovampensis*, *Francolinus levaillantii*, *Podica senegalensis*, *Schoutedenapus myoptilus*, *Coracina caesia* and *Serinus reichardi*, *Falco naumanni, Phoeniculus somaliensis, Lanius dorsalis, Cisticola bodessa, Mirafra albicauda*, *Myrmecocichla albifrons* and *Circus macrourus* were recorded during their prior survey. Additional 37 bird species were recorded from the Fura and Furagosa community based wildlife conservation site during the six hours surveys (Appendix 1).

From the species recorded in the survey area, African pygmy Goose *Nettapus auritus,* Black-winged Stilt *Himantopus himantopus,* Greater Sand Plover *Charadrius leschenaultia,* Grey Heron *Ardea cinerea,* Hottentot Teal *Spatula hottentota,* Little Ringed Plover *Charadrius dubius,* Marsh Warbler *Acrocephalus alustris,* Pied Avocet *Recurvirostra avosetta,* White Stork *Ciconia ciconia* and White-winged Black Tern *Childonias leucopetrus* were Palaearctic Migrants. Intra-African Migrants like Abdim's stork *Ciconia abdimii* and Grey-headed Kingfisher *Halcyon leucocephala* were also recorded.
The area supports populations of two Highland Biome species Ruppell's Robin-chat *Cossypha semirufa* and Wattled Ibis *Bostrychia Carunculata and one* Somali–Masai biome species Ruppell's Weaver *Ploceus.*
The presence of high number of species and globally importance species in Fura and Furagosa community based wildlife conservation area makes it important as CBC and has potential as eco-tourism site. It is also suggested that further systematic studies are required to find inclusive species checklists. The existence of Nechisar national park and Arbaminch town in nearby

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the area are produces important site for ecotourism activities. Sound conservation systems should be given to conservation of this area for sustainable human use. Co-operating the local people to conserve the area as community based wildlife conservation area and proposing for ecotourism site from Gamo zone and local community empowerment and direct involvement in the conservation of the area are inspiring progress.

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Appendix 1. A Primary bird checklists of Fura and Furagosa community based wildlife conservation area in February 2021.

Species Name	Abaya lake shore	Wood-land	Farm-land
Abdim's stork *Ciconia abdimii*	×		×
African Fish Eagle *Haliaeetus vocifer*	×		
Africa Jacana *Actophilomis africanus*	×		
African Grey Hornbill *Lophoceros nasutus*		×	×
African Harrier-Hawk *Polyboroides typus*		×	×
African Mourning Dove *Streptopelia decipiens*		×	×
African pygmy Goose *Nettapus auritus*	×		
Black kite *Milvus migrans*		×	×
Black-winged Stilt *Himantopus himantopus*	×		
Blue-spotted Wood Dove *Turtur afer*		×	
Chestnut Sparrow *Passer eminibey*		×	×
Egyptian Goose *Alopochen aegyptiacus*	×		×
Goliath Heron *Ardea goliath*	×		×
Great Carmmorant *Phalacrocorax carbo*	×		
Great Egret *Egretta alba*	×		×
Greater Blue-eared Starling *Lamprotornis chalybaeus*		×	×
Greater Sand Plover *Charadrius leschenaultia*	×		
Grey headed Gull *Larus cirrocephalu*	×		
Grey Heron *Ardea cinerea*	×		×

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Species			
Grey-headed Kingfisher *Halcyon leucocephala*		×	×
Hadada ibis *Bostrychia hagedash*	×	×	×
Hammer kop *Scopus umbretta*	×		×
Hottentot Teal *Spatula hottentota*	×		
Intermediate egret *Egretta intermediary*	×		×
Laughing Dove *Streptopelia senegalensis*		×	×
Lesser Jacana *Microparra capensis*	×		
Lesser Swamp *Warbler Acrocephalus gracilirostris*	×		×
Little Egret *Egretta garzetta*	×		×
Little Ringed Plover *Charadrius dubius*	×		
Little Weaver *Ploceus luteolus*		×	×
Malachite Kingfisher *Alcedo cristata*	×		
Marabou Stork *Leptoptilos crumeniferus*	×		×
Marsh Warbler *Acrocephalus alustris*		×	×
Mourning Collared-dove *Streptopelia decipiens*		×	×
Northern Carmine *Bee-eater Merops nubicus*		×	×
Pied Avocet *Recurvirostra avosetta*	×	×	×
Pied Kingfisher *Ceryle Rudis*	×		×
Red-billed Hornbill *Tockus erythrorhynchus*		×	×
Red-eyed Dove *Streptopelia semitorquata*		×	×
Ruppell's Long-tailed Starling *Lamprotornis purpuropterus*		×	×
Ruppell's Robin-chat *Cossypha semirufa*		×	×
Ruppell's Weaver *Ploceus galbula*		×	×
Sacred Ibis *Threskiomis aethiopicus*	×		×
Saddle-billed Stork *Ephippiorhynchus negalensis*	×		
Silver-cheeked Hornbill *Bycanistes brevis*		×	×
Slender-billed Starling *Onychognathus tenuirostris*		×	×
Speckled mousebird *Colius striatus*		×	×
Spur-winged Plover/Lawping *Vanellus spinosus*	×		
Wattled Ibis *Bostrychia Carunculata*	×		×
White Stork *Ciconia ciconia*	×		×
Whitebacked Duck *Thalassomis leuconotus*	×		
White-winged Black Tern *Childonias leucopetrus*	×		
Yellow -billed storck *Mycteria ibis*	×		

× indicates that the species present in the area but without × the species absent in the above table.

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ABSTRACT: The presumption of innocence is one of the fundamental principles, widely applied in modern legal science, as the basis for achieving fair and humane justice. This principle was formed very early in the history of the human law, in addition, the Vietnamese law has also absorbed the progressive thought early, recognized as one of the basic principles to ensure human rights and the overall effectiveness of criminal proceedings. The article analyzes the history, nature as well as the practice of applying this principle in the settlement of criminal cases in Vietnam according to the functions and duties of the People's Procuracy.

KEYWORDS: Presumption of innocence; Criminal Procedure; Exercising prosecution rights; Supervising the investigation and adjudication; Procuracy

JEL codes: K14

1. INTRODUCTION

The presumption of innocence principle in the Criminal Procedure Code 2015 has a huge meaning in criminal proceedings, plays the role of guideline and direction for thinking and actions of Investigators, Investigation officers, Procurators, Checkers, Judges, Assessors in the process of conducting the proceedings, thereby leading to the decision of the proceeding agencies (Investigation Authorities, Procuracy, Court) to properly resolve a criminal case; it is also a legal tool to ensure the rights of accused persons, not to happen wrongfully and left untried crime.

Innocent speculation is one of the most important and widely used fundamentals in modern legal science. Accordingly, the principle of presumption of innocence is a principle of assuring human rights. However, the practice of lawyers' defense activities shows that many activities of lawyers for defense of accused persons have not been respected and guaranteed by the agencies and competent persons conducting legal proceeding. That principle of presumption of innocence is not guaranteed (Mai & Huong, 2020).

Faced with the need to protect human right and the increasing trend of international integration, innocent presumption is one of the basic principles, widely applied in the judiciary of many countries (Hanh, 2020).

From the above reasons, this paper is necessary and meaningful.

This paper comprises five sections. Following this introduction is a brief synopsis of the literature on the principles presumption of innocence. The next section outlines the methodology; research results and discussions and implications; and conclusion.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1. Concept of the presumption of innocence in criminal procedure

Speculation, in Latin origin means Presumption. The presumption of innocence demonstrates the request: A defendant shall be regarded as innocent when their guilty is not proved in accordance with legal procedure and the sentence of the Court has acquired full legal effect (Uc, 2017). The principle of presumption of innocence in criminal procedure is established and confirmed by the bourgeois legislators in important legal documents and is recognized and applied by the international community, such as: Article 9 Declaration of human rights and civil rights of 26 August 1789 (French National Assembly, 1789) regulated "As every man is presumed innocent until he has been declared guilty, if it should be considered necessary to arrest him, any undue harshness that is not required to secure his person must be severely curbed by Law". Article 11 The Universal Declaration of Human Rights

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1948 (French National Assembly, 1948) regulated "Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defense" (Bien & Luc, 2020).

The lawmakers of the Soviet Union - the first Socialist State in the world - have initially defined the principle of presumption of innocence in Constitution of the Soviet Union 1977 (The Supreme Soviet of the Soviet Union, 1977) and were inherited in the 1993 Constitution of the Russian Federation (The Supreme Soviet of the Soviet Union, 1993). Specifically, Article 160 of the 1977 Soviet Union Constitution stipulated "No one may be adjudged guilty of a crime and subjected to punishment as a criminal except by the sentence of a court and in conformity with the law". Article 48 of the current 1993 Constitution of the Russian Federation states: "(i) Any person accused of committing a crime shall be considered innocence until his (her) guilt is proven in accordance with the procedure stipulated by federal law and is confirmed by a court sentence which has entered into legal force; (ii) The accused shall not be obliged to prove his (her) innocence; (iii) Irremovable doubts about the guilt of a person shall be interpreted in favor of the accused"

According to the provisions of international legal documents, the defendant's rights are rooted in a fundamental principle of criminal law which is presumption of innocence. The European Court of Human Rights (ECHR) has ruled that this regulation requires civil servants not to "formally declare that someone is guilty, unless there is a court decision" (Dao, 2020).

The Constitution of the Socialist Republic of Vietnam, which was passed on November 28, 2013, by the XIIIth National Assembly of the Socialist Republic of Vietnam, at its 6th session, effective from January 1, 2014, had mentioned the principle - "presumption of innocence" - which is specified in Clause 1, Article 31 of the Constitution: "A defendant shall be regarded as innocence until the crime is proved in accordance with legal procedure and the sentence of the Court has acquired full legal effect".

On the basis of the provisions of the 2013 Constitution, Article 13 of the 2015 Vietnam Criminal Procedure Code (CPC) has provided the principle of presumption of innocence with the following content:

"A accused person is deemed innocent until his guilt is evidenced according to the procedures and formalities as defined in this Law and a Court passes a valid conviction. If grounds for conviction, as per the procedures and formalities in this Law, do not suffice, competent procedural authorities and persons shall adjudge the accused person to be not guilty".

Previously, Article 72 of the 1992 Constitution states "No one shall be regarded as guilty and be subjected to punishment before the sentence of the Court has acquired full legal effect". Article 9 of the 2003 Criminal Procedure Code concretizes the above provisions of the 1992 Constitution and considers the contents determined in this Article is a basic principle of the Vietnamese criminal procedure. However, the principles stated in Article 72 of the 1992 Constitution as well as Article 9 of the 2003 Criminal Procedure Code and the presumption of innocence are completely different in their meaning. In the first case, it is construed as inference of guilt. In the second case, the presumption of innocence principle is based on the accused person and the speculation is based on the inference of the innocence of the accused (Uc, 2017).

Besides, some typical studies in Vietnam, such as, Hanh (2020) analyzed the situation of provisions on ensuring the implementation of the principle of innocent presumption in the Vietnam Criminal Procedure Code of 2015. Mai and Huong (2020) shed light on the practice of ensuring the presumption of innocence principle of lawyers when participating in the defense of criminal cases during the first instance trial, on which basis proposes a number of recommendations to ensure this principle in practice.

2.2. The content of the presumption of innocence principle in criminal procedure.

The presumption of innocence prescribed in Article 13, Criminal Procedure Code of 2015 contains the following basic contents:

(i).The accused is deemed not innocent until his guilt is evidenced according to the procedures and formalities as defined in this Law and a Court passes a valid conviction.

Accused persons under Article 4, Criminal Procedure Code, include those arrest, detainees, suspects, defendants, that is, those who are initially determined to have committed crimes by procedural agencies; they may not have been criminally charged such as arrest, detainees, or are facing criminal charges such as suspects, defendants. The basic common point here is that these people in varying degrees are being accused of committing the crime and are being subjected to examination, verification, investigation, prosecution and adjudication by the procedure conducting agencies. However, these persons are considered by law, procedure conducting agencies and procedure-conducting persons to be not guilty until their crimes are proven according to the order and procedures prescribed by Criminal Procedure Code and when the judgement of conviction of the Court takes effect. The rights to presumption of innocence force Investigation authorities, procuracies, courts to carry out the orders and procedures prescribed by Criminal Procedure Code to determine the facts of the cases in an objective, comprehensive and complete, clarify evidence of determination of guilt, evidence of determination of innocence, aggravating circumstances, and mitigating factors of criminal liability of suspects and defendants (The & Huong, 2017). Proof of crimes in accordance with the provisions of Criminal Procedure

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Code shall be carried out by procedure-conducting agencies and procedure-conducting persons (National Assembly, 2015). Investigation authorities, authorities assigned to perform certain activities of investigation (referred to Investigation authorities) has the duty and responsibility to carry out inspection, verification and investigation activities to identify criminals and offenders. These agencies have the authority and responsibility to conduct all methods of examination, verification and investigation such as scene examination, autopsy, testimony, interrogation, confrontation, identification, experimental investigation, search, etc. to collect evidence, clarify the content of the case. Under the provisions of Articles 165, 166, 236, 237, 266, 267 of the Criminal Procedure Code, The Procuracy exercises prosecution rights, and supervise the law observance in investigation, prosecution and adjudication of criminal cases, ensure that the criminal charges, investigation, prosecution and adjudication of criminal cases comply with the provisions of law on order, procedures, competence and time limit, ensure objectivity, comprehensiveness and completeness. The collection of evidence proving that the crime and the criminal act must not infringe the legitimate rights and interests of the accused, such as these forms are not allowed: torture, violence, harassment, corporal punishment, seduction, deception, etc. Procuracies exercising prosecution rights have the tasks and powers to approve correct procedural decisions of investigating authorities; not to approve, change or cancel the unlawful decisions of the Investigation Authorities.

At the end of the investigation, the case file and written conclusions of investigation are transferred to the Procuracy. Within the time limit prescribed by the Criminal Procedure Code, the Procuracy shall study case files, examine and assess evidence to determine the factuality and legality of decisions to press criminal charges, decisions to charge a suspect, etc. as well as case file. In cases where the case files and documents show satisfy requirements for factuality and legality, the Procuracy shall issue a decision to prosecute the accused to court for trial. Offenders must be tried at court openly, fairly, objectively and in accordance with the law on order, procedures, time limit, authority, and other matters. At the court session, the trial panel shall examine and evaluate evidence proving the crime by questioning, arguing and examining new evidences collected at the court session. In case the result of the questioning or argument at the court hearing determines that the defendant has committed a crime according to the indictment and accusation of Procuracy of the Procuracy, the Court shall issue a conviction judgment on the defendant. A guilty judgment pronounced against the offender takes legal effect upon the expiration of the time limit for filing an appeal, appeal by the Procuracy without being appealed or protested (National Assembly, 2015). Only after the conviction takes legal effect, the accused will be considered guilty.

(ii). If grounds for conviction, as per the procedures and formalities in the Law, do not suffice, competent procedural authorities and persons shall adjudge the accused person to be not guilty.

A crime means an act that is dangerous for society, is committed by a person or a commercial legal entity that infringes on social relations protected by the criminal code.

In order to clarify the above-mentioned contents of proof of crime, investigation authorities, procuracies, courts must, within the scope of their respective tasks and powers, thoroughly apply investigation and prosecution measures, legal trial as well as comply with the order, procedures, competence, time limit ... as provided by the Criminal Procedure Code.

Accused persons have no responsibility or obligation to prove their innocence, that is, they are not required to present alibi or other evidence to prove to legal protection agencies that they are innocent. Because they are naturally considered to be not guilty, if accuse or convict them, the procedure- conducting agencies must have the responsibility to find evidence to serve the accusation and conviction. According to the basic principles of the Criminal Procedure Code as provided in Article 15: "A accused person is entitled to but is not obliged to prove his innocence". Therefore, when the accused does not perform the proof of his innocence, it should not be considered as stubborn, resisting acts (attitude) to aggravate the punishment for them. However, the accused person has the right to prove his innocence through testimony, defense, witnesses or exhibits in his favor or by other legal means. The process of proving a crime, finding the objective truth of the case cannot avoid difficulties and problems when there are cases that the Investigation authority, the Procuracy or the Court have applied all appropriate investigation measures in accordance with provisions of the Criminal Procedure Code to prove, but is insufficient or unable to collect sufficient evidence to prove the crime or criminal act of the accused person. Therefore, the grounds for accusations and convictions have not been clarified. In that case, the agency or person competent to conduct the proceedings must conclude that the accused is not guilty. That means that the agency or person with authority to conduct proceedings must use evidence in a favorable direction (exonerating) to apply, bring to the accused so that they can enjoy those benefits to exonerate, and prove their innocence.

3. RESEARCH SUBJECT AND METHODOLOGY

Research Subject: The subject of this research is analyzed the history, nature as well as the practice of applying the presumption of innocence principle in the settlement of criminal cases in Vietnam according to the functions and duties of the People's Procuracy.

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Qualitative Research Methodology:
This research used a qualitative research methodology based on Theoretical background and previous studies.

4. RESEARCH RESULTS

4.1. Practical application of the presumption of innocence principle of Procurator in exercising prosecution rights, supervising the investigation, examining and adjudicating of criminal case

According to statistics of the Bureau of Statistics - Supreme People's Procuracy, from 2008 to 2018, the People's Procuracy at all levels exercised prosecution rights, supervised investigated 796,453 criminal cases/ 1,214,882 accused; practice prosecution rights, supervised adjudicate 665,325 cases / 1,149,372 defendants (Supreme People's Procuracy, 2019).

Thus, every year, the Procuracy at all levels has exercised the right to prosecute, supervise investigate and supervise adjudicate hundreds of thousands of criminal cases, making an important contribution to prevent and fight against crime, maintain political security, social order and safety, effectively protect human rights and citizenship. Procurators has always adhered to provisions of the criminal procedure law, the provisions of the Procuracy, in which, special attention is paid to the application of the principle of innocence to ensure human rights and citizenship of suspects and defendants. Specifically:

First, about the attitude towards the suspects, the defendants:

In practice of prosecution rights, supervise investigation, supervise adjudication, Procurators always comply with the provisions of the Procuracy (Supreme People's Procuracy, 2020), always consider the accused and defendants to be non-guilty from that to have points of accusation, exoneration as well as the right attitude, without prejudice. The Procurator's gestures, actions, words, postures, manners and attitude are always standard, showing the image of the Procurator "Justice, Integrity, Objectivity, Careful, Modesty". The prosecutor always has a respectful attitude towards the accused, the defendant, does not take actions, criticisms, disdain, despises, insults the honor and dignity of the accused, the defendant, the defense, even in case that the accused or defendants do not admit their criminal acts or object to the prosecutor's point of charged. When exercising the right of prosecution, supervising the investigation, procurators always closely monitor the investigators' activities to ensure that there are no acts to obtain of testimony by duress, using torture, falsifying the case file or have judgments or words that offend the honor and dignity of the accused or defendants. The procurator shall ensure that the accused can exercise his / her rights and perform his obligations in accordance with the provisions of the Criminal Procedure Code. When exercising the right of prosecution and supervising the trial in court, the Procurator always strictly complies with the provisions of the Criminal Procedure Code, provisions of the Procuracy. When questioning the accused, the Procurator always maintains a calm attitude, not impatient. When arguing with defendants or defense counsels, prosecutors are always calm, objective, and respectful opinions of defendants, defense counsels, procedure participants, and respond with each their opinion till the end, acknowledge their correct opinions but also firmly reject those opinions and proposals that have no legal basis, which are contrary to social ethics.

Second, to thoroughly implement the provisions of the law to impeach charges as well as to exonerate the accused and defendants The practice of prosecution right, supervise investigation and adjudication of the case shows that the most important and central task of the Procurator is to accuse the suspect, the defendant, that is to prove the guilt of the suspect, the defendant. At the same time, the task of exonerate the accused and the defendant is always respected by the Procurator to ensure no wrongdoing or omission of crime in criminal proceedings. Therefore, during the investigation, Prosecutor always closely supervises all investigative activities of the Investigator, ensuring that all procedural decisions, investigation activities must aim to clarify the contents that need to prove criminals which is provided in Article 85 of the Criminal Procedure Code. The decision to press criminal case charges, the decision to charge a suspect, and the decision to prosecute the accused must be well-grounded and legal, that is, there must be sufficient evidence proving that there is a crime, the accused has committed crime, the investigation strictly complied with provisions of the Criminal Procedure Code. The accusation about defendants at court sessions must ensure sufficient evidence to prove crimes and criminal acts in the process of investigation and prosecution and results of questioning and arguing at court. The exonerate of the accused and the defendant is carried out in parallel with the accusation, that is, Procurators, when practice prosecution rights, supervise investigations, supervise adjudication, always focus on requesting Investigators to collect also evidence proving that the accused does not commit a crime, such as the accused underage for criminal responsibility, incapable of criminal liability, and a behavior dangerous to society that is not a crime, has expired effect of criminal prosecution, criminal acts in the cases of exclusion of criminal liability or exemption from criminal liability (National Assembly, 2015). At the trial, the Procurator thoroughly applies the provisions of the law on the duties and powers of the Procuracy to make charged, simultaneously exonerating the accused. The Prosecutor interrogates the defendant about evidence, documents, and items in connection with conviction or acquittal and other facts of the case. (Clause 2, Article 309 of the Criminal Procedure Code

of 2015 - National Assembly, 2015). In case of interrogation, the defendant does not commit a crime, the Procurator withdraws a decision to prosecute and requests the Trial Panel to declare the defendant not guilty in accordance with Article 320 of the Criminal Procedure Code. In case the defendant does not commit the offense that the Procuracy has prosecuted but commits another lesser crime or clause, the Procurator shall change the Procuracy's point of view of prosecution and accusation to another lesser crime or clause. Procurators can reduce circumstances that aggravate criminal liability, increase circumstances to mitigate criminal liability or reduce the liability to compensate defendants. In cases where there are sufficient grounds to conclude on another more serious crime, the procurator may not request trial on the heavier crime but request the Trial panel to postpone the court hearing and return the case file to the Procuracy for closely to consider, decide, ensure the objectivity and correctness of the resolution of the case.

Third, thoroughly implementing duties and powers to exercise prosecution rights, supervising law observance to ensure the principle of innocence.

When exercising prosecution rights, administering charged and investigation, procurators thoroughly implement the duties and powers of procurators and Procuracies to approve, disapprove, or change or cancel the procedural decisions of investigation authorities; request investigation authorities to conduct investigative activities, change and supplement procedural decisions; strictly deal with Investigators who violate the law, etc. At the court hearing, procurators exercise prosecution rights by announcing indictments, questioning, impeachment, arguments, and at the same time supervising the law observance of trial panels and procedure participants to ensure that the trial must be carried out in accordance with the provisions of law. On the basis of compliance with the provisions of the law, human rights and citizenship rights in criminal proceedings will be ensured, especially the legitimate rights and interests of defendants, including the right to "presumption of innocence".

4.2. Skills to deal with difficulties and problems in applying the principles of innocence of Prosecutor when exercising prosecution rights, supervising investigation, administering adjudication criminal cases

First, the skill of solving difficulties and problems in applying the principle of innocent speculation in case the investigating authority has not properly perceived the principle of innocence, so the criminal charge and the investigation did not base.

According to Article 179 of the Criminal Procedure Code, when a person or juridical person is found on sufficient evidences to commit an act defined by the Criminal Code as a crime, investigation authorities shall decide to file charges against suspects... However, in some cases, it is also difficult for Investigation authority to properly assess the "grounded" nature to determine that a person or juridical person has committed an act defined by the Criminal Code as a crime. According to Article 8 of the Penal Code, crime is an act dangerous to society specified in the Penal Code. For some types of crimes, it is difficult to assess whether the behavior is significantly dangerous to society because the article in the Penal Code does not specify. For example, the Crime of Insults to another person (Article 155 of the Penal Code) or the Crime of Slandering (Article 156 of the Penal Code), to determine the level of "serious insults" is not easy (Supreme People's Procuracy, 2016). Therefore, in some cases, when the act shows signs of a crime, the investigation authority has charged the criminal case, charge the accused and applied preventive measures, coercive measures and conduct investigative activities for the accused. So, in practice, there have been cases of injustice and wrong investigation of the accused. With the responsibility of being the agency exercising prosecution rights, supervising the law observance in prosecution and investigation of criminal cases, procurators must promptly supervise and detect violations of the prosecution and wrong investigation to promptly rectify and remove. In the above cases, in order to promptly detect, correct and eliminate violations in prosecution and injustice investigation, the procurator conducts the supervising right from the time the investigation authority accepts and resolves criminal information, issues a decision to charge a criminal case, to charge suspect, and conducts investigation activities. The prosecutor focuses on researching and evaluating documents, evidence proving a crime, the offender collected by the Investigation Authority to conclude whether or not a crime has occurred, who is the person committing criminal acts.

Second, the skill to solve difficulties and problems in applying the principle of innocence in case the investigating authority has not properly perceived the principle of innocence, thus violating the regulations on the investigation of the criminal case, such as: obtainment of testimony by duress, corporal punishment, falsifying case files, suspending, dismissal of cases, handling evidence. For investigators, their main purpose is to clarify the criminal quickly and promptly, the offender as well as other relevant facts. Therefore, in the investigation process, when initially identifying the person committing the crime (the accused), in the mind of some investigators, it is definitely the person who committed the crime, Therefore, they often focus on applying legal investigative measures, even illegal measures such as harassment, corporal punishment, falsifying case files to extract information from the accused. In such cases, the Procurator must closely follow the investigation process of the Investigation Authority, carefully study

the documents and evidence of the Investigator, compare, and evaluate them specifically in the whole all evidence to promptly detect the Investigator's violation so that Investigators' violations cannot occur.

Third, the skills to solve difficulties and problems in applying the principle of innocence in case the accused, the defendant are denied the crime, do not admit their crime acts.

The nature of the offender is to deny sin, seek to conceal, not admit his offenses in order to avoid the punishment of law. The accused, the defendant is denied the crime, does not admit his crime by many different forms and tricks, such as refusing to report, giving false testimony, devious, cheating, destroying evidence of the case ...; give false evidence to prove the alibi; do not admit the charges of the Procuracy in court, etc. When the accused person denies the crime, the Procurator is not allowed to be impatient, angry, and hateful, so that illegal acts such as harassment, corporal punishment, insult honor and dignity of the accused. Procurators need to carefully study the case files, carefully evaluate the collected documents and evidence to coordinate with the Investigator in order to properly investigate to continue collecting evidence to prove criminal offenses. At the trial, in order to fight to clarify the crime or criminal act, the Procurator must interrogating the defendant on the evidences, documents and items related to the charge, exonerate and other details of the cases as provided for in Clause 2, Article 309 of the Criminal Procedure Code. While arguing, the Procurator needs to analyze and evaluate the defendant's behavior, motivation, purpose, the consequences have been caused, the causal relationship between the behavior and the consequences; the relevant evidence gathered during the investigation, prosecution and adjudication process is enough to confirm that the defendant's behavior is a criminal act that specified in the Penal Code that the Procuracy has invoked to prosecute.

Fourth, skills to solve difficulties and problems in applying the principle of innocence in case the Court decides to resolve a criminal case without ground or against the law.

The Court's decisions and judgments must be correct, objective, fair, and the trial panel's resolutions must be based on evidences and documents that have been examined at the court session, on the basis of considering fully and comprehensively evidences of the cases, opinions of procurators, defendants, defense counsels and other procedure participants. In such cases, in order to ensure the principle of innocence, procurators must promptly int time re-examine the case files, decisions, judgments of the Court, legal documents which the Court applies to report and propose leaders of the Institute to issue petitions, appellate protests, cassation and reopening procedures in order to correct violations, ensure the correct settlement of criminal cases, thereby ensure the principle of innocence in criminal proceedings.

5. CONCLUSION

One of the new features of the Criminal Procedure Code 2015 is the first time the presumption of innocence has been recognized in the Vietnam Criminal Procedure Code. The recognition of the principle of presumption of innocence has effectively contributed to the protection of human rights in criminal proceedings.

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Formation of Neutral Points in the Polarization Characteristics of Secondary Radiation in the Semi-Infinite Medium Model

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ABSTRACT: This article studies the polarization characteristics of diffusely reflected backward radiation when illuminating a semi-infinite, light-scattering medium with unpolarized radiation. The formation of neutral Babine, Brewster and Arago polarization points in the angular polarization characteristics of the secondary radiation is shown. Comparison between the results of exact numerical calculations and approximate analytical formulas has been carried out and physical conditions for the appearance of neutral points depending on the angles of illumination and the multiplicity of scattering have been analyzed.

KEYWORDS: Polarized radiation, neutral points, semi-infinite medium, transport equations.

INTRODUCTION

With the appearance of methods for studying the Earth's surface using polarization probes, interest in studying the transport of polarized radiation in layers of the atmosphere has grown [1,2]. In our papers [3,4], the theory of polarized radiation transfer in media with finite optical thicknesses was outlined. Where, the method of calculation of polarized radiation transfer was developed within the framework of the theory of radiation transfer constructed by Chandrasekar and later generalized by Lenoble and E.L. Ivchenko and others in [5,6]. The polarization degrees of diffusely reflected and diffusely passed natural unpolarized solar radiation through atmospheric layers were calculated using this theory. The main attention was removed to the study of the angular characteristics of the Babine, Brewster, and Arago neutral points as a function of the illumination angle, optical thickness, and optical parameters of the medium. The results of these calculations have shown that neutral points are also formed in the semi-infinite medium model. However, in the literature devoted to the study of the characteristics of neutral dots, this issue is not discussed in the semi-infinite medium model and has not been studied consistently.

In contrast to the atmosphere in the light scattering solids or liquids the dielectric permittivity of the medium is high. For this reason research of polarization characteristics of secondary radiation of such media, with the help of this model is of practical value and hopefully will attract the attention of specialists.

In the case of $\tau \to \infty$ the results of calculations in media with finite optical thicknesses [3], one passes to the model of a semi-infinite medium [5,6]. In this case, the intensity and polarization of the reflected backward radiation do not depend on the optical thickness and only the albedo parameter-the quantum yield of the one-time scattering-remains in the solution of the transfer equation. In spite of such simplification, in the characteristics of the reflected backward radiation all features concerning all neutral points observed in the case of a medium with a finite thickness are preserved. The angular characteristics have qualitatively the same character as in the case of a finite-thickness medium for the reflected radiation.

From the theoretical point of view, the study of neutral points in the model of a semi-infinite medium is still interesting because the solution of the integral equations for the H-functions by the iteration method has a very high accuracy [5]. This circumstance makes it possible to evaluate the accuracy of the solution of the equations for $X(\mu), Y(\mu)$-functions calculated for a medium with finite thickness. Since in the model of media with finite thickness depending on the value of albedo and optical thickness, the numerical values of the integral equations for $X(\mu), Y(\mu)$-functions have low accuracy, and this was mentioned in [7]. In spite of the fact that various methods have been developed to solve the transfer equation, we have chosen the iteration method to solve the problem at hand. The advantage of this method over others is that the iteration method allows us to estimate the contributions to the intensities and polarizations of the secondary radiation of single-, double-, etc. scattered radiation. This circumstance allows to better understand the process of formation of characteristics of the secondary radiation and to analyze the physical phenomena observed in the medium, such as neutral polarization points.

Formation of Neutral Points in the Polarization Characteristics of Secondary Radiation in the Semi-Infinite Medium Model

1. Problem statement

Let a plane light wave with total flux $\pi \boldsymbol{F}$ falls on the medium and propagates in the direction $\boldsymbol{\Omega}_0$ (θ_0, φ_0). Intensity of radiation at any depth $(-z)$ of the medium's plane, propagating in direction $\boldsymbol{\Omega}(\theta, \varphi)$ is determined by solution of transfer equation [6],

$$\mu \frac{d\mathbf{I}(\tau,\boldsymbol{\Omega})}{d\tau} = \mathbf{I}(\tau, \boldsymbol{\Omega}) - \frac{\widetilde{\omega}_0}{4\pi}\int_0^1 d\mu' \int_0^{2\pi} d\varphi' \, \boldsymbol{P}(\boldsymbol{\Omega}, \boldsymbol{\Omega}')\mathbf{I}(\tau, \boldsymbol{\Omega}') - \frac{\widetilde{\omega}_0}{4}\exp(-\tau/\mu_0)\boldsymbol{P}(\boldsymbol{\Omega}, \boldsymbol{\Omega}_0)\mathbf{F}. \qquad (1)$$

Here the z-axis is perpendicularly upward directed from the incidence plane of the primary flux, θ, φ-polar and azimuthal angles, $\tau = (\alpha_{abs} + \sigma)$ z-optical thickness of the medium, $\widetilde{\omega}_0$ - albedo, is the quantum yield of single scattering, $\boldsymbol{P}(\boldsymbol{\Omega}, \boldsymbol{\Omega}')$ is a (4x4) matrix of single Rayleigh scattering, the incident flux is also represented as a Stokes column matrix $\mathbf{F}(F_l, F_r, F_U, F_V)$.

Intensities of diffusely reflected back radiation from medium is defined through $\boldsymbol{S}(\boldsymbol{\Omega}, \boldsymbol{\Omega}_0)$ -reflection matrix, which connects with incident flux

$$\mathbf{I}^{ref}(\boldsymbol{\Omega}) = (\widetilde{\omega}_0/4\mu)\mathbf{S}(\boldsymbol{\Omega}, \boldsymbol{\Omega}_0)\mathbf{F}(\tau = 0, \overline{\boldsymbol{\Omega}}_0). \qquad (2)$$

Analytic form of solution for matrix $\boldsymbol{S}(\boldsymbol{\Omega}, \boldsymbol{\Omega}_0)$ is determined by transfer equation (1), and principles of invariance, and this matrix can be represented as a sum of three independent terms [6],

$$\mathbf{S}(\boldsymbol{\Omega}, \boldsymbol{\Omega}_0) = \mathbf{Q}\{(3/4)\mathbf{S}^{(0)}(\mu, \mu_{(1)}) + [(1 - \mu^2)(1 - \mu_0^2)]^{1/2}\mathbf{S}^{(1)}(\boldsymbol{\Omega}, \boldsymbol{\Omega}_0)\mathbf{P}^{(1)}(\mu, \varphi, -\mu_0, \varphi_0) + +S^{(2)}(\boldsymbol{\Omega}, \boldsymbol{\Omega}_0)\mathbf{P}^{(2)}(\mu, \varphi, -\mu_0, \varphi_0)\}. \qquad (3)$$

The analytical form of the solution of these equations is rather cumbersome and for brevity we will not cite them here [3].

2. Results of numerical calculations

Usually the value $\mu = cos\theta$ is used as an angular variable in the radiative transfer equation. Our calculations show that if the geometric angle θ is used as a variable, the accuracy of the calculation results increases, especially near $\mu \to 0$. This is due to the fact that in numerical calculations, when performing μ integration, the space in the angles is not uniformly divided. For example, if we divide the value of μ, in the interval [0,1] at forty points, by the first step of the interval $\Delta\mu = 0 - 0.025$, the angle $\Delta\theta \approx 10^0$ corresponds. If we take into account that there is such an uneven distribution of space in μ, it is not difficult to explain why the position of the Arago point is not clearly defined in some works dedicated to the study of the characteristics of neutral points in the atmosphere layers depending on the value of optical parameters of the medium [8,9,10]. Since, this point is observed only when the Sun is near the horizon ($\mu \to 0$).

The solutions of the problem are defined by eight non-linear integral equations for $X(\mu)$-functions, passing at $\tau \to \infty$ to H-functions. The solutions of these equations can be determined with high accuracy, by the iteration method, by numerical calculations on a computer.

Let us consider the case where the medium is excited by unpolarized radiation. The stokes parameters of the exciting radiation have the following values

$$F_l = F_r = F/2, \quad F_U = F_V = 0 \qquad (4)$$

Due to multiple scattering in the medium, the radiation is polarized and the degree of polarization of the secondary radiation coming out of the medium is determined by the formula

$$P_{lin} = (I_l - I_r)/(I_l + I_r).$$

Fig.1,2 shows the results of the exact calculation of the angular dependence of the polarization of the reflected secondary radiation for two values of albedo: $\widetilde{\omega}_0 = 0.5$ and $\widetilde{\omega}_0 = 0.9$. The polar angles of excitation and observation lie in the same meridional plane $\psi = \varphi_0 - \varphi = 0, \pi$. The source of illumination is in the half-plane $\psi = \varphi_0 - \varphi = 0$. Calculations show that at large values of excitation angles, near the point $\theta_0 \approx 90^0$ in the meridional half-plane the Babine point and in the other half-plane the Arago point are observed. As the value of the excitation angle decreases, depending on the albedo value, from some angle $\tilde{\theta}_0 \approx \theta_0$, the Arago point disappears, but a Brewster point appears near the Babine point. When $\widetilde{\omega}_0 = 0.5$, the value of this angle is $\tilde{\theta}_0 \approx 82^0$. As the albedo value increases, the Arago point is observed at larger angles of illumination. At $\widetilde{\omega}_0 = 0.9$ the value of this angle is $\tilde{\theta}_0 \approx 72^0$. With decrease of the excitation angle value θ_0, the Babine and Brewster points shift towards the zenith point, and the angular distance between them first increases to $\theta_0 \approx 50^0$, and then decreases and merges into one point, at $\theta_0 = 0^0$. Increasing the albedo value, also leads to widening of the angular distance between these points. At the same time the polarization amplitude increases in the area between the neutral points, but in the negative part of the characteristics, the polarization decreases. The polarization maxima correspond to the point where the propagation directions of the incident and reflected radiation are mutually perpendicular. The polarization maximum between the neutral points of Babine and Brewster corresponds to the angle of incidence of the incident radiation, i.e. the maximum is observed when the incident radiation is reflected backward. This behavior

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of the neutral points is similar to the pattern observed for reflected radiation in the model of media with finite thickness [4,9,10]. Figures 1 and 2 also show the results of the calculation of the angular characteristic of the degree of polarization of the secondary radiation, from the multiplicity of scattering for two values of albedo. The calculations in Figure 1 were performed for the scattering medium at $\widetilde{\omega}_0 = 0.5$, when the values of the absorption and scattering coefficient of the medium are equal to $\sigma = \alpha_{abs}$. The graphs show that for the formation of neutral points in the polarization characteristics of the secondary radiation, a twofold scattering of the primary radiation in the medium is sufficient. Increasing the number of scatterings leads to increasing the value of polarization of radiation between neutral points, and to decreasing the maximum polarization.

In Fig.2 the calculations are performed in the case of a highly scattering medium, when $\sigma = 9\alpha_{abs}$ and $\widetilde{\omega}_0 = 0.9$, the values of the scattering coefficient are much larger than the absorption coefficient value. In this case, the degree of polarization in the region between the neutral points is noticeably higher than in Fig. 1, and depolarization increases in the region of negative polarizations.

The results of these calculations show that when the medium is excited by unpolarized radiation, across the meridional plane of incidence and observation, the difference between the I_l, I_r components of the intensity of the reflected radiation, changes sign twice.

For verification, the results of the analytical calculation of the angular characteristics of the degree of polarization in equations (1)-(3), in the case of single scattering, are given below,

$$P_{lin} = \frac{2\alpha^2 - (1-\mu_0^2)(1-\mu^2) + 4\mu\mu_0\alpha\cos(\varphi_0-\varphi) - (1-\mu_0^2)(1+\mu^2)\cos2(\varphi_0-\varphi)}{2\alpha^2 - (1-\mu_0^2)(1-\mu^2) + 4\mu\mu_0\alpha\cos(\varphi_0-\varphi) - \alpha^2\cos2(\varphi_0-\varphi)}, \qquad (5)$$

where, $\alpha = ((1-\mu_0^2)(1-\mu^2))^{1/2}$, φ_0, φ are the azimuthal angles of the incident and scattered radiation. The results of the calculation of the angular characteristics of polarization in the first iteration, calculated by the exact (3) and by the analytical forum (5), coincide with high accuracy.

Figure 3 shows the angular characteristics of the secondary radiation intensity, for two values of albedo. The graphs show that in the geometry of normal incidence and reflection back $\theta_0 = \theta = 0$, the intensity of secondary radiation is maximal. As the excitation angle deviates from the normal, the intensity maximum shifts toward the horizon. As the value of quantum yield of single scattering increases, the intensity of secondary radiation increases at all angles of illumination and observation. At the polarization rotation points, the intensity also changes values modulo.

Below we discuss the case when the medium is excited by linearly polarized radiation, the polarization plane of the incident and reflected radiation lie in the same meridional plane, containing angle 45^0 between the F_l, F_r components, the phase difference of oscillations between them is equal to zero. The stokes parameters of the excitation radiation have the following values

$$F_l = F_r = F/2, F_U = F, F_V = 0. \qquad (6)$$

The degree of polarization of radiation is determined by the formula

$$P_{lin} = U/(I_l + I_r). \qquad (7)$$

Angular polarization characteristics of secondary radiation for different values of the excitation angle, with albedo $\widetilde{\omega}_0 = 0.5$ and $\widetilde{\omega}_0 = 0.9$ are shown in Fig. 4,5. It can be seen from figures that in contrast to case of excitation of medium by non-polarized radiation, in this case only one neutral point is observed in angular polarization characteristics of reflected radiation. As one would expect, this point corresponds to the point where the directions of the incident and reflected radiation are mutually perpendicular. At the first iteration by the general formula (3), we can introduce the formula for calculation of polarization for the once scattered radiation

$$P_{lin} = \frac{2(2\alpha\cos(\varphi_0-\varphi) - 2\mu_0\mu\cos2(\varphi_0-\varphi))}{2\alpha^2 - (1-\mu_0^2)(1-\mu^2) + 4\mu\mu_0\alpha\cos(\varphi_0-\varphi) - \alpha^2\cos2(\varphi_0-\varphi)} \qquad (8)$$

Figure 6 shows the angular characteristics of the secondary radiation intensity, for two values of albedo. As the albedo value increases, the intensity of the radiation exiting the medium decreases, since the multiplicity of scatterings increases. At the zero points of polarization the phase difference between the components I_l, I_r changes sign, this leads to a change in the sign of the intensity.

CONCLUSIONS
1. Theoretically investigated the angular polarization characteristics of diffusely reflected secondary radiation when illuminating a light-scattering, semi-infinite medium with unpolarized and polarized radiation.

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2. It is shown that in the model of a semi-infinite medium in the angular polarization characteristics of diffusely reflected radiation neutral points, similar to those discussed in atmospheric physics, are formed in the case of media with finite thicknesses. Positions of these points strongly depend on value of quantum yield of single scattering-albedo and angle of illumination.

3. The conditions for the formation of neutral points depending on the multiplicity of scattering were investigated. It is shown that for the formation of neutral points, a double scattering of the incident radiation in the medium is sufficient.

4. Calculations show that this polarization behavior has a general character, and, unlike turbid media, neutral points can also be observed in light-scattering media with high dielectric permittivity, both in liquids and solids.
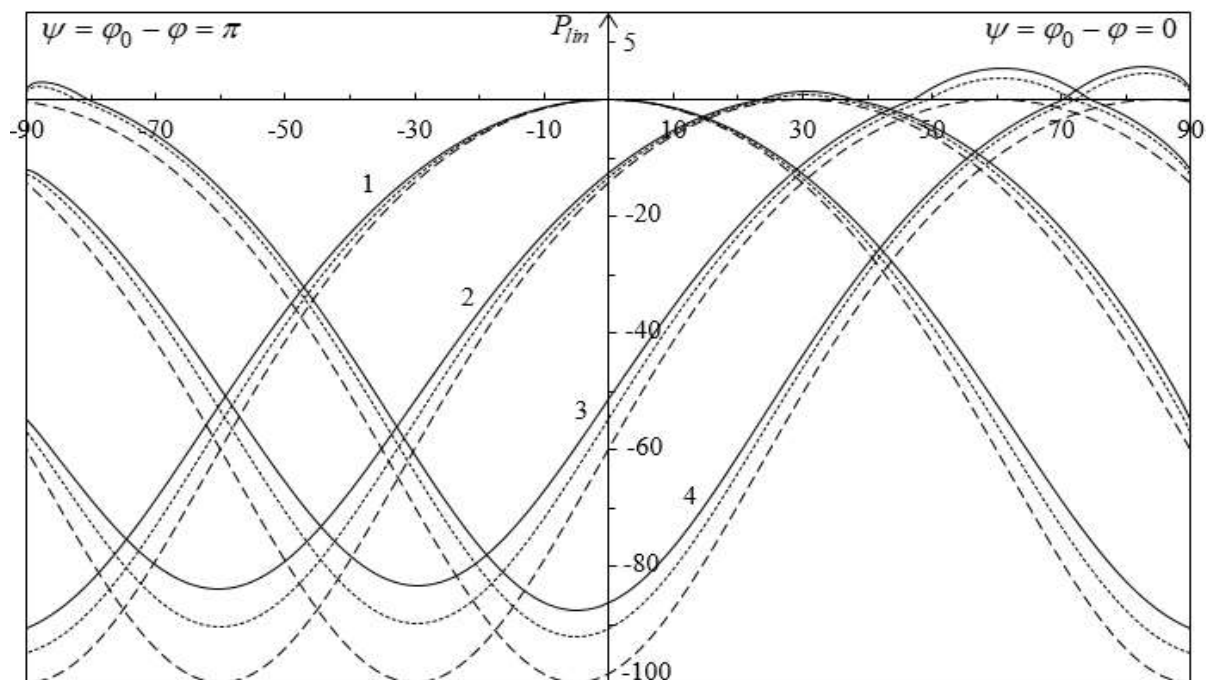
Fig.1. Dependences of polarization of reflected backward radiation on the multiplicity of scattering, in case $\tilde{\omega}_0 = 0.5$. Dotted curves describe single scattering, dotted double scattering, bold curves the results of exact scattering. Illumination angles: $\theta_0 = 0^0$ (cr. 1), $\theta_0 = 30^0 (2)$, $\theta_0 = 60^0 (3)$, $\theta_0 = 85^0 (4)$.
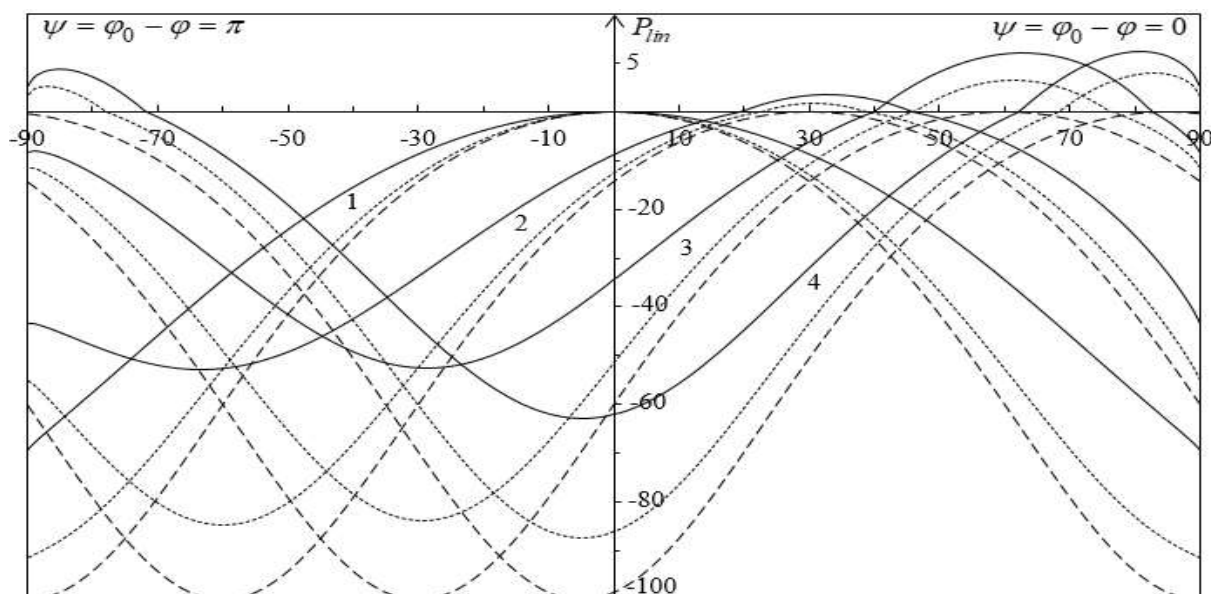
Fig.2. Dependences of polarization of the secondary radiation on the multiplicity of scattering, in case $\tilde{\omega}_0 = 0.9$. Dotted curves describe single scattering, dotted double scattering, bold curves the results of exact scattering. Illumination angles: $\theta_0 = 0^0$ (cr. 1), $\theta_0 = 30^0 (2)$, $\theta_0 = 60^0 (3)$, $\theta_0 = 85^0 (4)$.
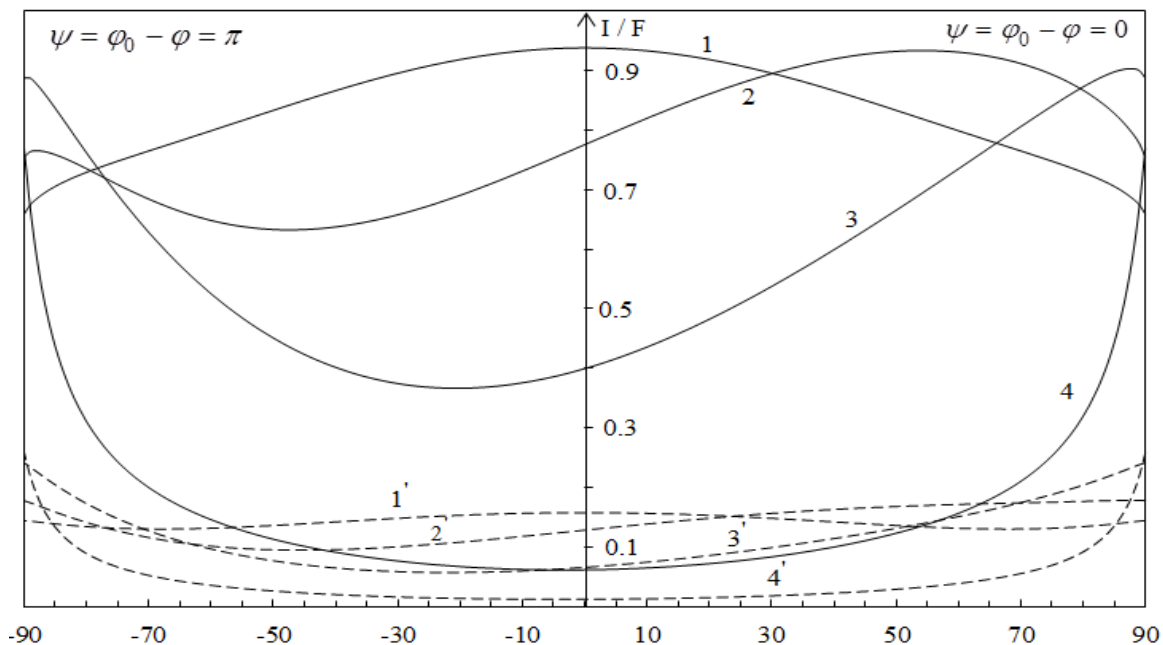
Fig.3. Angular dependences of the intensity of secondary radiation for two values of albedo. The dotted curves are calculated at $\widetilde{\omega}_0 = 1/3$, the bold ones at $\widetilde{\omega}_0 = 0.9$. Illumination angles: $\theta_0 = 0^0$(cr.1,1'), $\theta_0 = 30^0$(2,2'), $\theta_0 = 60^0$(3,3'), $\theta_0 = 85^0$(4).

Fig.4. Dependences of polarization of reflected radiation on multiplicity of scattering, at excitation by linearly polarized light. Dotted curves single scattering, bold results of exact scattering, $\widetilde{\omega}_0 = 0.5$. Illumination angles: $\theta_0 = 0^0$ (cr. 1), $\theta_0 = 30^0$(2), $\theta_0 = 60^0$(3), $\theta_0 = 85^0$ (4).

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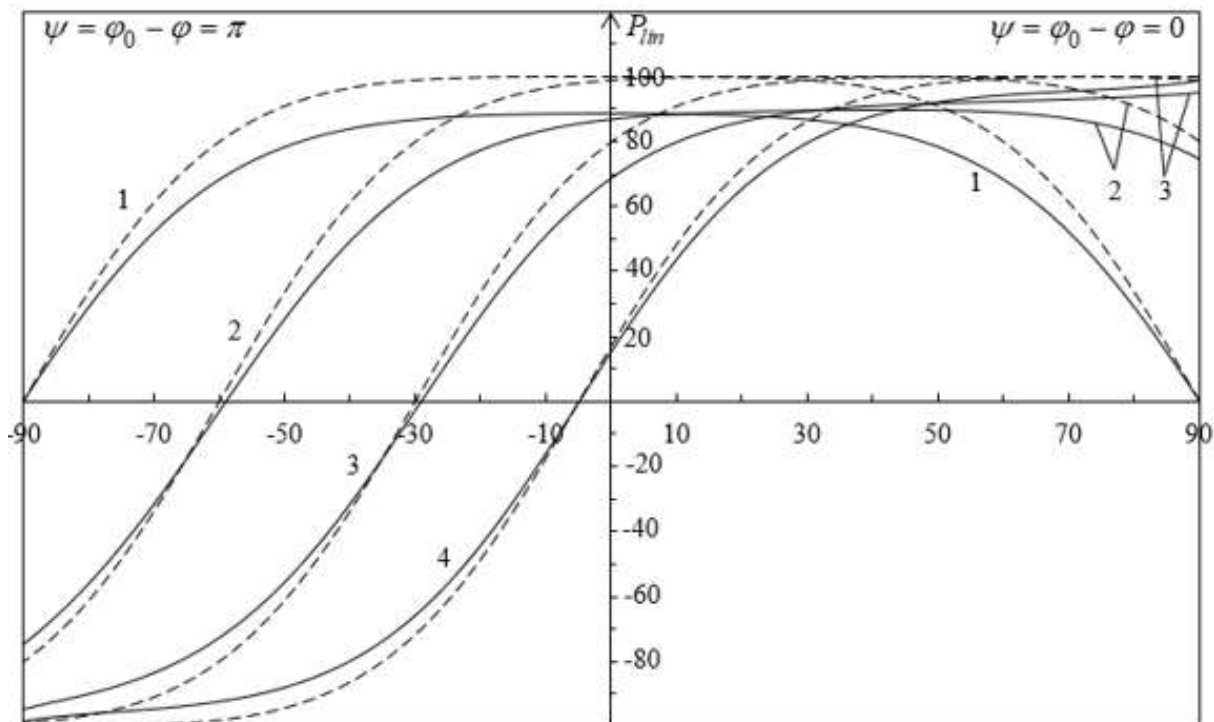
Fig.5. Dependences of polarization of the secondary radiation on the scattering multiplicity, in the case $\widetilde{\omega}_0 = 0.9$. The dotted curves describe the single scattering, the bold curves the results of the exact calculation. Illumination angles: $\theta_0 = 0^0$ (cr. 1), $\theta_0 = 30^0 (2), \theta_0 = 60^0 (3), \theta_0 = 85^0$ (4).
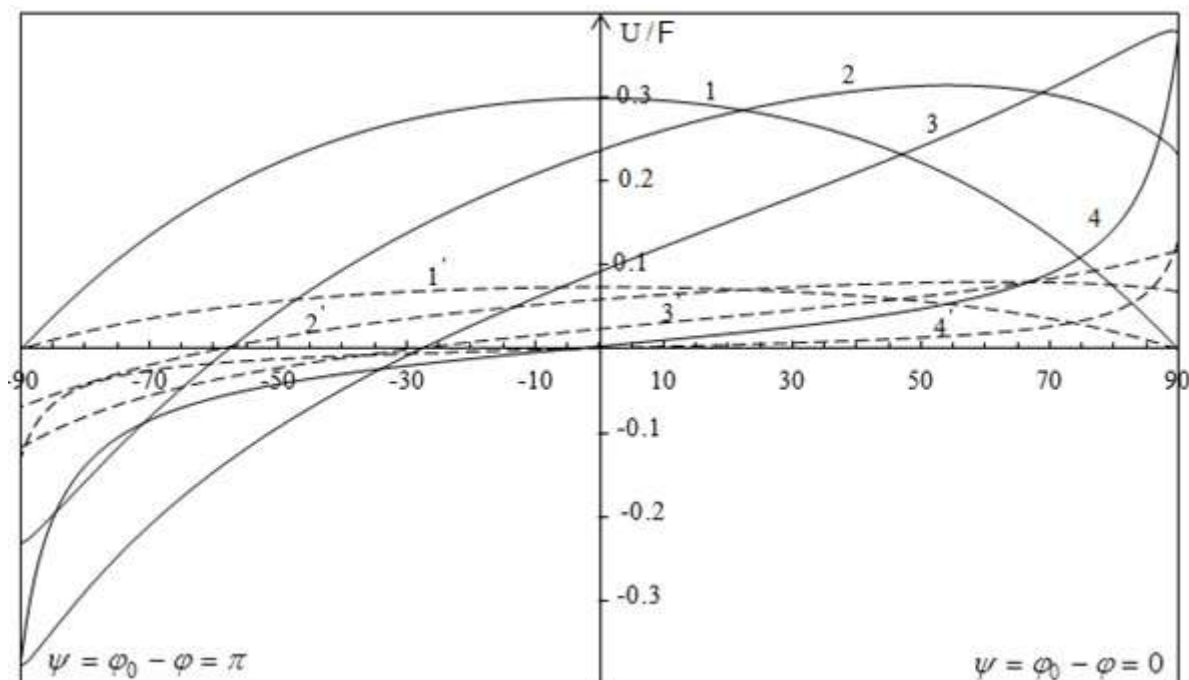
Fig.6. Angular dependences of the intensity of secondary radiation for two values of albedo. The dotted curves are calculated at $\widetilde{\omega}_0 = 1/3$, the bold ones at $\widetilde{\omega}_0 = 0.9$. Illumination angles: $\theta_0 = 0^0$(cr.1,1'), $\theta_0 = 30^0(2,2'), \theta_0 = 60^0(3,3'), \theta_0 = 85^0(4)$

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The Provision of Tourists' Rights in Uzbekistan: International and National Standards

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ABSTRACT: This article examines the issues of legal regulation, which are the basis of all areas and directions of tourism. In particular, the analysis of the importance of international legal norms in ensuring the rights, freedoms and safety of tourists in Uzbekistan, the need for their implementation in national legislation. The author has also developed suggestions and recommendations for specific issues based on the findings of this study.

KEYWORDS: Convention, freedom, implementation, international norms, law, tourist, tourism.

INTRODUCTION

The first Universal «Framework Convention on Tourism Ethics» of the United Nations World Tourism Organization (UNWTO) from 2017 underlined: «to develop tourism to contribute to economic development, international understanding, peace, prosperity and universal respect for, and observance of human rights and freedoms for all without any kind of distinction» [4]. With this regard, the considerable focus has been observed on the enhancement and development of the legal framework of the sphere of tourism and the perfection of international-legal norms on tourists' rights and responsibilities.

It is demanded to conduct scientific researches on the acceleration of the legal regulation of this sphere and its' main subjects – tourists' rights, freedom and security to sustainable develop the tourism by the states and organizations in the world, which affect the development of societies and the implementation of international standards into national legislation.

Important measures are being taken to ensure the participation of Uzbekistan in international tourism organizations, the development of close contractual relations with foreign countries, and the perfection of national legislation in the sphere of tourism according to the international norms. In particular, it was noted that «tourism has become a strategic sector of the country's economy» [21] and «the development of the normative-legal framework in the sphere of tourism, the implementation of international norms and standards in organization of favorable conditions for tourism development»[22] identified as the important tasks of the intensive development of this field. In this context, *it is purposed* to devise proposals and recommendations on improvement of the national legislation in the sphere of tourism by analyzing the latest tendencies of the international-legal norms related to the provision of tourists' rights, security, and responsibilities in Uzbekistan.

THE LITERATURE REVIEW

The research is based on the international and legal framework of tourism, which makes it to analyze various legal norms. However, legal scientific research in this direction is not fully extended yet. The study of the international legal framework of tourism and collaboration in this sphere engaged in the works of foreign scientists as V.Vakhmistrov, E. Pisarevskiy, A. Maniatis, and Y.Abaydeldinov [6, P.1-13]. In Uzbekistan, particular issues of civil-legal regulation of tourism services providing in the Republic of Uzbekistan were researched by U.Dustov and legal regulation of hotel services in the framework of the legislation of Uzbekistan can be observed in the scientific research papers of L.Achilova.

Several aspects of tourism have been researched in the Republic of Uzbekistan by several scientists as E.Golisheva, N.Fayzibaeva, M.Usmanov, etc. in the sphere of tourism [20], but there is no comprehensive complex research of the issues on the maintenance of tourists' rights, security, and responsibilities from the perspectives of the Republic of Uzbekistan. The prospects of implementation of international-legal standards into national legislation to develop the sphere of tourism and raise solve actual issues related to tourists' rights provisiondetermine the content of this research work.

National and international legal review on the maintenance of tourists' rights and freedoms. Foreign researchers emphasized that the development of international tourism demands state solutions to many problems. These problems become a subject of discussion at various international meetings, and approaches to resolving them are established at conferences and in international treaties and declarations [1, P.716]. The rule of law principle has to do with the perception of Justice and is strongly related to the issue of human rights. Although national Constitutions do not usually tend to incorporate a definition of this legal tool, it is about a state officially submitted to legal rules, relating to the entirety of its activity concerning tourism [6, P.4].

The legal framework in the field of ensuring the rights and freedoms of tourists in the Republic of Uzbekistan is based on the relevant provisions of the Constitution. Among them, we highlight those that are closely related to ensuring the rights and freedoms of tourists. Article 23 of the Constitution, states the provision of rights and freedoms to foreign citizens and stateless persons located in the Republic of Uzbekistan following international law [16, C.4].Therefore, tourists who are foreign citizens have certain rights, which are enshrined in international legal acts.

After the adoption of the Decree of the President of the Republic of Uzbekistan on ensuring the accelerated development of the tourism industry, the issue of further improvement of the legislation and regulatory framework in the sphere of tourism has become the most relevant [19].Especially the paragraph on the implementation of a set of measures to ensure the safety of life and health of tourists and travelers in organizing tourist services is significant in compliance with the principles and norms of international law in the Republic of Uzbekistan.

Among the generally recognized principles of international law, the principle of respect for human rights and freedoms is of paramount importance for the regulation of tourism activities. Today, this principle is an integral part of the theory and practice of international human rights law.

The Republic of Uzbekistan is a party to two fundamental multilateral human rights treaties, which enshrined the provisions relating to the tourism sector (the rights and freedoms of each): The International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights.

Furthermore, there are several international-legal norms in the sphere of tourism in which the Republic of Uzbekistan does not participate. The Manila Declaration on World Tourism, adopted in 1980, outlined the role and place of tourism in modern society. This document confirms the requirements of respect and enforcement of human rights. Its main provisions are reduced to the following statements:

 observance of the human rights to rest, to vacation and freedom of travel (paragraph 3);

 providing maximum opportunities and benefits in the field of youth tourism, tourism of the elderly and people with physical disabilities (paragraph 15);

 social tourism is the goal towards which society should strive in the interests of less affluent citizens when they use the right to rest (paragraph 10);

 tourist resources are the property of mankind.

This declaration is a fundamental document of a global scale, which includes the legal status of tourists at the highest level.

The next international legal standard is the Acapulco document (1982), which confirms the principles of the Manila Declaration and also adds the followings to them:

- ensuring the right of citizens to rest, leisure, paid leave and the creation of legislative provisions to facilitate access to holidays by all segments of the population;

- release of information materials on tourism, etc.

The Tourist Code, which is an Annex to the Tourist Charter (1985), confirms the principles proclaimed by the Manila Declaration and the Acapulco Document. At the same time, the Charter establishes the basic rights and obligations of tourists, which are specified in the Tourist Code.

The Hague Declaration on Tourism (1989) proclaimed 10 principles on which relations in the tourism sector are based. Not all principles of The Hague Declaration are legal. In addition to the principles formulated in documents adopted earlier, The Hague Declaration indicates the principle of safety and protection of tourists, as well as the principle of respect for their dignity; emphasizes that tourism should be planned by state authorities and requires the development of *unified national tourism policy.*

A new approach to the right to tourism. Tourism has to do with the liberty of moving from place to place, without any bans imposed by states. So, it is intrinsically connected with civil fundamental rights, like the freedom of motion. It has been noticed convincingly, especially in French theory, that the law on the matter is older than it seems to be. It can find its origins in the regulation of the liberty to go and to come from one place to another. Since people have the possibility of traveling, this question has emerged [5, P.145].

Uzbekistan has not also participated in one of the last approved Conventions of the UNWTO — Framework Convention on Tourism Ethics. The proposal to convert the Code, the UNWTO's important document, into an international convention to reinforce its effectiveness was submitted in 2015 by the World Committee on Tourism Ethics to the General Assembly of the UNWTO [10].

This Convention provides new trends in the rights of tourists, based on the provisions of the Universal Declaration of Human Rights and the nine principles of the Code of Ethics for Tourism [2, P.218]. In particular, the document provides clear definitions of the fundamental concepts of the tourism industry, the rights of workers and entrepreneurs in the tourism industries, respect for national legislation, the benefits of the host countries, the responsibilities of all participants in the tourism process, the environmental aspects of tourism, prevention of negative impacts of tourism on society and the conciliatory mechanism for resolving disputes under this Convention [11].

First of all, as importance in implementation of the Framework Convention into national legislation, we would like to focus on several drawbacks of previous "Law on tourism" of the Republic of Uzbekistan. So, in this Law, there was no direct enumerated fixation of state responsibilities in the sphere of tourism from 1999. In the Law only the main directions of state policy in the sphere of tourism were marked, which can be considered as the obligations of the state in front of the tourist and the development of the tourism industry. However, in the framework Convention on Tourism Ethics (will be used CTE) (in Article 3) and Charter of tourism, the duties of the state are enshrined directly in Articles III, IV, V.Furthermore, in the principles of the Global Code of Ethics for Tourism (now, it becomes the part of CTE) and in the Osaka Millennium Declaration on the assignment of states' responsibilities in the field of tourism activities, as well as the responsibilities of participants of the tourism process were paid much more attention. Several norms of those international documents have beenimplemented into the Law on tourism in a new edition from 2019 without signing international norms in the field of tourism. The absence of the direct fixation of the duties of the state represented by its local authorities and self-government bodies more broadly in the sphere of tourismleads to the fact that the realization of the rights of tourists significantly hindered. With this regard, *it is suggested to ratify the Framework Convention on tourism ethics by the Republic of Uzbekistan.*

Moreover, at present one of the important issues in tourism development is to overcome and prevent its *negative results on societies' and governments' social, economic and environmental life.* The CTE is considered to be unique and the only framework Convention in the sphere of tourism, which regulates these problems in universal level. Namely, it was underlined that, this document takes into account the swift and continued growth, both past and foreseeable, of the tourism activity, whether for leisure, business, culture, religious or health purposes and other special interest tourism products and segments, and its powerful effects, both positive and negative, on the environment, the economy and the society of both generating and receiving countries, on local communities and indigenous people, as well as on international relations and exchanges. Furthermore, the universal ethical principals in tourism include (the CTE): the respect of host regions' peculiar laws and customs, the issues of public culture; the tolerance on the rights of vulnerable people; prevention of negative impact of tourism on nature and development of ecotourism; the impact of innovative projects on various environmental and cultural heritage and the issues of preserving them [7]. From our consideration, these inclusive international norms of regulation of *actual problems re-affirm the ratification and implementation of the CTE into national legislation of Uzbekistan.*

Particularly, in the cases when some historical heritages of Uzbekistan, as Shakhrisabz, Bukhara and Samarkand were in danger of removing them from the UNESCO's World Heritage List [8] during the organization's WHC's 43rd session, the implementation of this Framework Convention is of a particular importance. These are the main sources for Uzbekistan to increase the tourists flow and consequently for economic benefit of the country.

Here, we should note that, Uzbekistan does not participate in several international conferences and did not sign universal norms which directly regulate the sphere of tourism and tourists' rights and freedoms, which were mentioned above, till 1991- as a subject of international law (as an independent state) and after the independence, it was not considered as an important factor for developing tourism industry in the country. According to Russian academicians, the above mentioned, as well as other documents, which constitute in itself the totality of the Institute of International Tourism Law, are an important guarantee of progressive and direct development of international cooperation in the field of tourism [15].

From our point of view, non-participation of Uzbekistan in these important legal acts in the sphere of tourism, from one hand, would influence on appearing misunderstandings in national legislation and functioning of subjects of tourism industry, and from another hand on international image, which was announced as one of the main dimensions in the Presidential Decree "On the Action Strategy for the Further Development of the Republic of Uzbekistan in 2017-2021 years". The document, in particular, provides the implementation of "constructive foreign policy aimed at strengthening the independence and sovereignty of the state, creating a secure belt around Uzbekistan, stability and good neighborly relations, strengthening the country's international image" [12].

The perspectives of the protection of tourists' rights: international standards and Uzbekistan. The continuous growth of the tourism sector and its current trends and challenges, including those related to safety and security and the expansion of new businesses' models, require an adaptation to the global legal framework. With this regard, the UNWTO has been working since 2011 on the development of the International Convention to protect tourists and ensure confidence in the tourism sector, an initiative now in its final phase. The 9th meeting of the Working Group on the International Convention on the "Protection of Tourists and the rights and obligations of Tourism Service Providers" took place on 26-27 January 2017 [13]. According to the Draft of the Convention, tourists and providers of tourism services are granted rights and duties based on international human rights standards. Moreover, by signing this Convention, the parties undertake the obligations to join at least one Annex of it, which consists of emergency assistance, a package of travel and accommodation, providing appropriate conditions for foreign tourists under different circumstances [14]. The rules and conditions set out in the Convention are considered to be liberal in relation to the Convention on the Travel Contract (1970), which, after the signing of the new Convention, it is not worthwhile to accede to the 1970 Convention. The most significance of this Convention is *its easing touristic formalities in international level.* Almost all important documents in this direction were adopted only in regional and bilateral level.As the UNWTO's ex-Secretary General TalebRifai expressed, "we are at a highly relevant crossroads; tourism is increasing every year and governments and private sector need tools to build a framework to guarantee tourist protection among other trends".

It is known that, the Republic of Uzbekistan pays a great attention to ensuring human rights in the country and to the development of tourism, according to the international standards. *With this regard, ratifying of this Convention would facilitate in future:*

- trust of potential tourists in maintaining their rights and interests in the Republic of Uzbekistan; Namely, according to the Article 2, Part 1, "States Parties shall take measures to protect the interests of tourists and to ensure that tourism service providers respect the rights of tourists as set out in this Convention". And also, it underlined State parties' opportunity to grant a higher level of protection to tourists than that set out in this Draft Convention;

- further strengthening of the relations of the State Committee for Tourism Development of Uzbekistan and other private touristic organizations with major tour operators, branded network hotels; In particular, according to the second Annex of the Convention special international terms and their definitions are interpreted, which are often used to organize package travel and tours [3]. And they are considered to be useful for entering international relations with private sector of tourism industry of foreign countries.

Moreover, if this Draft will be approved by the world authority and opened to ratify, for Uzbekistan which put forward to join several international Conventions (as, International Convention on Contract Travel from 1970 and Convention on Custom Privileges for tourists from 1954) [17] in the sphere of tourism would not need to sign them and join directly to the Convention on the "Protection of Tourists and the rights and obligations of Tourism Service Providers". Because current Convention foresees contractual information obligations, as well as pre-contractual issues, alteration of the price and its terms (Articles 2,6,7 of Annex II);

- presenting a significant direction of law enforcement, including number of judicial practice in the field of consumer rights protection of tourist services, as well as entrepreneurial activities in the sphere of tourism; The inclusion of protection in the event of the insolvency of the organizer (Article 11), and the functioning in the emergency situations of both parties (Article 5, Annex III and Annex I as a whole). And influence on the development of direct mutual relations of tourist providers in international level;

- attracting more foreign investment into the sphere of tourism development of the Republic of Uzbekistan.

National normative-legal improvement in the sphere of tourism. Reforms in normative-legal and institutional regulation of tourism werecharacterized with the development and implementation of legal norms aimed at enhancing the guarantees and effectiveness of protecting the rights and legitimate interests of consumers of the tourist product, the quality and safety of tourism. In particular, creation of special policemen (in the basis of the Ministry of Internal Affairs) in several regions of Uzbekistan and adoption of the special conception on "Secured tourism" was by the Cabinet of Ministers in 2017 show the effective results on preventing tourists' rights in Uzbekistan [9].

We agree with foreign scientists view that, the legal regulation of tourism - is the effective, normative and organizational impact of the law and the totality of legal tools, and methods on the behavior and activities of participants in this sphere and their relations with a view to establish the legal basis for a single tourism market, the protection of human rights and freedom of citizens in the frame of tourism, including ensuring the rights of citizens to have a rest, freedom of movement, information, health protection, a favorable environment, and participation in cultural life and the use of cultural institutions through tourism [18, C.16].

Moreover, it will be more plentiful the participation of private sector and nongovernmental organizations' in prevention of tourists' rights and freedom. The growth of the number of tourists in the country emerges the raise of problems and cases related to the violation of their rights or issues concerning misunderstandings on national laws for foreign citizens. Consequently, the tourists come to the arena as the consumers of legal services. Some of them usually are ready to pay for this service if it will be conducted in a valuable form, at same time another part of tourists asks for free legal consultancy in a received country. *With this regard, it is recommended to create special Legal clinic (s)in the form of non-governmental organization (both commercial and non-commercial forms)on protection of tourists' rights and freedoms in Uzbekistan.*These law clinics would serve:

-to provide legal consultancy only to tourists regarding the provision their rights, freedoms and responsibilities;

- maintain attorney service in specific conditions related to the protection of tourists' rights in civil, administrative or criminal cases;

- other services which are connected with the provision of tourists rights.

CONCLUSION

To summarize, it began a new period of tourism development in Uzbekistan from December 2016. Legal norms and changes are almost adopted by the government. And the main aim is to implement into this novation into the practice. At the initial stages of tourism development in Uzbekistan, the main efforts were aimed at attracting foreign tourists to the country, as well as overcoming the negative factors influencing on the development of inbound tourism. At the initial stages of tourism development in Uzbekistan, the main efforts were aimed at attracting foreign tourists to the country, as well as overcoming the negative factors influencing on the development of inbound tourism.

However, some aspects of legal promotion of tourism continue to be actual till present. Namely, improvement of the regulatory framework for the development of cultural, educational and pilgrimage tourism, the reformation in the field of tax preferences and the maintenance of security of tourists are also in the process of development now. However, some aspects of legal promotion of tourism continue to be actual till present.

Uzbekistan, as mentioned before is not a part in the universal specific international Conventions which regulate the sphere of tourism. From our point of view, the ratification of UNWTO's Convention on tourism Ethics by the Republic of Uzbekistan would effect on:

- realization of the plans for sustainable development of the United Nations and the development strategy of the Republic of Uzbekistan in the tourism industry;

- shows the active participation of the Republic of Uzbekistan in the implementation of international standards in the field of tourism development;

- solution of the actual issues which are connected with the negative impacts of tourism (ecological, environmental and social-political issues (illegal migration, labor and other exploitation purposes));

- regulation of interconnections among the tourism industry subjects in international and local level;

- the result of "face-to-face conversation" would be a beneficial impact on the growth of international image of Uzbekistan;

- moreover, the signing and ratification ofthe Draft Convention on the "Protection of Tourists and the rights and obligations of Tourism Service Providers" by the world authority, and Uzbekistan in the near future will serve as the factor for provision of tourists' rights in a higher sustainable level. In addition, the functioning of special legal clinics for tourists in accordance with the suggested form will be a unique implementation of international norms' realization in institutional form in Uzbekistan.

Last but not least, the perspectives of tourism development in the Republic of Uzbekistan and solving the actual issues in this sphere should be based on the legal and institutional guarantee. Hence, the adoption of demanded legal provision comes from international standards, states' practice and domestic initiatives.

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Academic Dishonesty in Islamic Primary Schools

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ABSTRACT: This research aimed to find out the forms and factors of academic dishonesty during the time of doing a task or test on Islamic Primary School Students in central Java, Indonesia. There were 7 informants in this research consisting of 4 primary informants that involved students from fourth, fifth, and sixth grades, and 3 secondary informants that involved homeroom teachers of the primary informants. This was qualitative research with a case study approach whose data were collected using interviews. The results showed that the forms of students' academic dishonesty included copying the answers, cheating, having their homework done by someone else, asking for and giving the answers, cooperating in cheating, correcting answers, bringing some notes, and lying about doing the assignments. Meanwhile, the factors that caused students to commit those dishonesties were low self-confidence, low internal motivation, gender, low control, unpreparedness for the test, conformity, and the ease of technology.

KEYWORDS: Academic Dishonesty; Students; Primary School; Islamic school; Cheating

I. INTRODUCTION

Education is an obligation for everyone, with the aim of none other than to add insight. Education can change humans from ignorance, the higher the level of education of a person, the wider the knowledge that can be obtained. To reach this level of education, humans must have integrity, professionalism, and creativity that are honed in the world of education (Wicaksono, 2017).

The implementation of education in Indonesia refers to the rules or regulations that have been made by the government, these regulations are stated in Law No. 20 of 2003 concerning the National Education System which states that:

> **"National education functions in developing abilities and shaping dignified national character and civilization in order to educate the nation's life, aiming at developing the potential of students to become human beings who believe and fear only God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens"**.

Based on these objectives, the substance of educational goals is more on character education. It is also emphasized that education according to the Big Indonesian Dictionary is the process of changing the attitudes and behaviour of a person or group of people in an effort to mature humans through teaching and training efforts. According to Law no. 20 of 2003 article 3 education is a conscious and planned effort to create an atmosphere of learning and the learning process so that students actively develop their potential to have spiritual strength in religion, self-control, personality, intelligence, noble character, and skills needed by themselves, society. , nation and state. Meanwhile, according to Horne (Raharjo, 2010), it is a continuous (eternal) process of higher adjustment for human beings who have developed physically and mentally, who are free and aware of God, as manifested in the intellectual environment. Emotional and humanitarian from humans.

From some of these definitions, the understanding is obtained that education is an effort to change one's attitude consciously continuously in order to develop the potential in one goal. The goals achieved are listed in Law No. 20 of 2003 article 3, one of which is noble morals. Noble morals according to Raharjo, (2010) are traits that are imprinted in the soul, from which deeds are born easily without thinking and pondering first, one of these noble morals is honesty.

Honesty is the attitude and behaviour in acting in real and what it is, not lying, not making up, not adding to, and not reducing nor hiding information (Astrini, 2015). Honesty is very much needed in this aspect of life. An honest attitude is an attitude that is instilled and applied in everyday life because an honest attitude is a good and praiseworthy attitude. The application of honest character can be started from an early age in the family, such as if you are guilty you have to admit your mistakes, between words

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and actions must be the same, tell something to your parents and the community, hold and carry out the mandate well (Chairilsyah, 2016)

In the world of education, the value of honesty needs to be developed to produce resources that can uphold the values of honesty. Educators have an important role in building the character, personality and intellectuality of students (Emosda, 2011). So that educators are one of the factors that determine the success of the application of the concept of honesty. An honest character that can be instilled in students according to (Susanti et al., 2020) can be done through modelling, spontaneous activities when the teacher finds out about good and bad students, exemplary stories or stories, conditioning, and routine activities.

However, this application is not easy. In fact, the application of honest character has not been maximally realized because there are still many values of honesty that are violated. As the results of (Herdian, (2017) states that academic dishonesty occurs starting from elementary school to college. Sari, (2015) examined academic dishonesty in junior high school students, saying that several factors of academic dishonesty in junior high school students were due to pressure to get high grades and the desire to avoid failure.

The education system in Indonesia still uses test scores or learning evaluations which cause people to see the success of learning achievement is only reflected in the achievement of learning outcomes, not in the process. This view creates pressure on students to get high scores. The pressure felt makes students more value-oriented rather than acquiring knowledge, students think that exams are a tool to show achievement not a monitoring tool in the learning process. This is the reason for the emergence of cheating which is an indicator of academic dishonesty behaviour in students from elementary, middle, upper and even tertiary levels (Kusumastuti, 2015).

The term dishonesty in the scope of education can be referred to as academic dishonesty or academic dishonesty. Academic dishonesty is an act or behaviour of a person by borrowing or copying assignments from others, copying assignments from others, copying answers during exams, and obtaining assignments or exam questions from the previous semester. Academic dishonesty can be defined as any treatment or action that involves dishonesty in academics as well as imitating, buying assignments, copying, and printing without the truth of the work of others (Latisha Asmaak & Surina, 2008).

Academic dishonesty according to Moeck, (2002) is that academic dishonesty is the misuse of academic material by destroying or changing parts of the content. Academic dishonesty according to Kibler (W. L. Kibler, 1993) is a form of cheating and plagiarism that involves students in illegally giving or receiving assistance in exams or receiving awards for work they do not do. Based on the description above, it can be concluded that academic dishonesty is an act of misusing material and violating the norms or rules that have been set in school, acting dishonestly or fraudulently by using various means for personal gain.

Academic dishonesty is a unique reckless behaviour that occurs in students and is associated with cheating on homework and plagiarism on academic assignments (Korn & Davidovitch, 2016). The deceptive act of fraudulent means is that students send the same paper to another class without permission and collaborate with others on assignments assigned as individual work. (Pedhazur & Aviele, 2001).

Some forms of academic dishonesty include asking for answers, asking for the essence of answers, looking at answers (without being noticed by friends), carrying cheats and searching for answers on the internet. The academic dishonesty factor is caused by the questions that come out during the exam are not studied or are not in accordance with what was learned while studying, do not know the answers, do not understand the material presented during lectures and learning is not optimal (Herdian & Lestari, 2018)

Based on the above background, the researcher is interested in further examining academic dishonesty in Islamic elementary school students, because elementary schools with a religious background can be a source of moral development and are positively related to morality and religiosity, primary schools are in a strategic environment in cultivation. Character, as an initial level that teaches the values of honesty to students and from habituation can become a habit towards the next level. The focus of this research is What Forms of Academic Dishonesty in Islamic Elementary School Students? And What Are the Causes of Academic Dishonesty in Islamic Elementary School Students?

II. METHOD

This study uses a qualitative method with a case study approach because this research will develop an in-depth analysis of how the forms and factors of academic dishonesty of students in Islamic elementary schools, Central Java, Indonesia. The researcher will limit the research to one or more variables, thus there needs to be a focus, namely the subject matter that is still general. In this study, the focus of the problem is the Forms of Academic Dishonesty in Islamic Elementary School Students and the Causes of Academic Dishonesty in Islamic Elementary School Students.

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The informants of this study consisted of primary informants and secondary informants. There are 4 primary informants consisting of grade 4 and class 6 each with 1 student, grade 5 with 2 students. Meanwhile, the secondary informants were student teachers, amounting to 3 informants. This is more clearly shown in table 1. Research participants.

In this study, the interview method used was semi-structured interviews, namely the interview process that had been prepared or compiled interview guidelines to find out data about the form and factors that influence academic dishonesty.

In this study, the interview method used was semi-structured interviews, namely, the interview process that had been prepared or the interview guidelines were compiled to find out data about the form and factors that influence academic dishonesty. Data analysis uses interactive analysis through several steps including data collection, data reduction, data presentation and drawing conclusions or verification.

Table 1. Research participants

No	Participant	Status	Note
1	Participant 1	Primer	Grade 4
2	Participant 2	Primer	Grade 5
3	Participant 3	Primer	Grade 5
4	Participant 4	Primer	Grade 6
5	Participant 5	Sekunder	Teacher
6	Participant 6	Sekunder	Teacher
7	Participant 7	Sekunder	Teacher

III. RESULT AND DISCUSSION

All paragraphs must be indented. All paragraphs must be justified, i.e. both left-justified and right-justified.

A. Form of academic dishonesty

Participant 1 commits dishonesty by copying a friend's answer by looking at the answers that friends have worked on and the answers are sent via WhatsApp. When participants have difficulty, participants see a friend's answer without the friend's knowledge. In addition, Participant 1 commits academic dishonesty by asking friends for answers when tests are difficult.

Participant 2 commits academic dishonesty by way of homework being done by others on craft assignments, cheating on friends during tests, working with friends, bringing cheats during tests by writing a cheat sheet on a drink bottle. Replace then justify with the correct answer when matching the test on short questions, if the length or description is only one or two questions.

Participant 3 commits academic dishonesty by copying a friend's work, seeing a friend's answer with the friend's permission, asking for help from parents who carry out homework, asking for answers from friends during tests. Cheating on daily assignments, collaborating with friends on almost all lessons except for the subject participant 3 likes, namely mathematics and improving answers when they are matched by replacing them with correct or corrected answers.

Participant 4 commits academic dishonesty by doing assignments with friends or collaborating. Copying a friend's work for doing it slowly in maths lessons, asking friends to help answer questions in tests, giving help by giving answers to friends.

"Yes, ask what answer via WhatsApp, the answer on what page, if a friend has done it I see it" participant 1

"I once put a cheat sheet on a bottle using a bottle" participant 2.

"Yes, look at my friend's answer, for a good friend I will see" Participant 3

"Yes, but my friends work fast, so I see what my friends have worked on" Participant 4

Secondary informants also said the same thing about forms of academic dishonesty in their students. Participant 5 said that academic dishonesty among students included homework done by other people because the work was neat, not like the work of children of his age, cooperating with friends by cheating while working and replacing then justifying answers on the grounds of incorrect writing. Participant 6 also explained that academic dishonesty was carried out in the form of saying that copying a friend's answer through a WhatsApp picture with an answer that his friend had done and immediately worked on it when he arrived at school. Furthermore, the secondary information, Participant 7, said a form of academic dishonesty, namely by asking for answers from friends on subjects who could not, giving answers to friends except in mathematics. Because in certain lessons not mastered

"It is not students-made, because the work is neat and good" Participants 5

"At that time, he said that yesterday I saw the answer from the friend next to me, the problem was that he was tired of over sleeping" Participant 6

 "Asked his friend even though I saw it was only math lessons he asked a friend" Participant 7

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Based on the findings of this study, it can be seen that academic dishonesty consists of several forms including copying answers, looking at answers, homework being done by others, asking for answers, giving answers, receiving answers, cheating, collaborating, confirming answers, carrying cheats and lying about assignments.

The form of academic dishonesty committed by Participant 1 is receiving answers, reinforced by Kibler's opinion (Kibler, 1993) which states that academic dishonesty is a form of cheating and plagiarism that involves students giving or receiving answers. In Ungusari, (2015) states that one form of dishonest behaviour is asking for answers. Participant 2 commits academic dishonesty by bringing cheats reinforced by the results of research from Arinda, (2015) which states that carrying cheats during exams is a form of academic dishonesty.

The form of academic dishonesty in the form of copying the answers made by Participant 1, Participant 3 and Participant 4 is reinforced by Colby's opinion (Fadlilah & Aisyah, 2017) that one indicator of academic dishonesty is copying other people's answers during exams. Participant 1 sees answers when in difficult situations, According to Sagoro, (2013) one of the actions of academic cheating is glancing at or seeing friends' answers. In Participant 2, the form of academic dishonesty that is carried out is by collaborating during tests and Participant 3 who lies about doing assignments, this opinion is in line with Lambert's opinion (Fadlilah & Aisyah, 2017) that another indicator of academic dishonesty is helping others to cheat. By cooperating during tests and copying assignments claiming to be their own work. Forms of academic dishonesty such as cheating in collaboration or asking for help were carried out by Participant 4, Participant 3 and Participant 2, reinforced by research results from Lestari & Asyanti (Herdian & Wulandari, 2018) that forms of academic dishonesty include asking for answers, copying and cheating.

B. The academic dishonesty factor

Participant 1 has low self-confidence because he thinks he cannot do it and if he sees a friend's work it is more true. Based on the information submitted by Participant 1, the factors behind committing academic dishonesty are utilizing the convenience of technology such as using WhatsApp to get answers from friends. Participant 1 follows his friend to commit academic dishonesty, besides that the background factor is conformity, namely a sense of wanting to follow something that other people do. Participant 2 when tests will commit academic dishonesty when supervision is low, such as when teachers are not paying attention to their students. Participant 3 has low self-confidence in Javanese language lessons because according to him it is difficult and does not understand because at home / everyday language uses a different language. Participant 3 imitates friends who commit academic dishonesty, low internal motivation factors, namely laziness to do assignments, inadequate preparation in learning so that when working on the questions they experience difficulties. Participant 4 has low self-confidence because he thinks that during certain lessons Participant 4 does it slowly unlike other friends who are fast and correct.

"Yes, I ever asked via WhatsApp, what's the answer, what is the answer on what page, Grandma have you, I see" Participant 1

" When the teacher uses a cell phone, but when I cheat, it's sometimes said" Participant 2

"Javanese language is difficult, the Javanese script does not understand the language at home using a different language" Participant 3

"Because my friend is working on it quickly and then the answer is correct, because sometimes I'm wrong" participant 4

According to Nursalam et al., (2016) who said that the factors that cause students to commit academic dishonesty are not confident with their own work or low self-confidence as happened to Participant 1, Participant 3 and Participant 4. In Participant 1 and Participant 3 the underlying factor is conformity, namely following friends who commit academic dishonesty, this is reinforced in the opinion of (Lestari & Asyanti, 2015) that dishonesty occurs when students watch their friends cheating. The convenience factor in technology is a factor causing participant 1 to commit academic dishonesty, reinforced by research according to Harris (Mustapha et al., 2017) the ease of technology factor is the strongest factor that academic dishonesty occurs. Participant factor 2 commits academic dishonesty when supervision is low, according to research by Ungusari, (2015) that in situations where students have exams and have difficulty working, then see friends who are cheating on each other when supervision is low, more students behave dishonestly. Due to the influence of the environment, namely friends who are cheating on each other and lax supervision so that when this situation occurs students will take advantage of the opportunity to be dishonest. Participant 3 in conducting academic dishonesty is based on the factor of unpreparedness in facing exams because there has been no prior preparation, this can be strengthened by Fitriyani's opinion (Nugroho, 2015) one of the factors causing academic dishonesty is mastery of the material besides the factor, namely exam unpreparedness.

IV. COCLUSIONS

Of the four participants studied, there were forms of academic dishonesty carried out by students, namely copying answers, seeing answers, homework being done by others, asking for answers, giving answers, receiving answers, cheating, collaborating,

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confirming answers, bringing cheats and lying about doing assignments . The factors of academic dishonesty from the four informants were low self-esteem, low internal motivation, gender, low supervision, unpreparedness to take exams, conformity and ease of technology.

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Board of Directors Decisions and Performance of Deposit Money Banks: An Analytical Approach

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ABSTRACT: The study examines the relationship between Board of Directors Decisions and Performance of Deposit Money Banks: An analytical approach in Nigeria for the period 1990–2018. The study measured Ordinary share capital, Debenture, Investment in subsidiaries, and Loans /advances as proxies for Board of Directors decisions while Return on Equity was used as proxies for Performance of deposit money banks for the said periods under review. In the course of the study, data were obtained from the website of Central Bank Statistical bulletin and annual report of Nigerian Deposit Insurance Corporation (NDIC). The Augmented Dickey Fuller (ADF) test option was used to test for unit root. The ARDL and Bounds test were used to estimate the short and long run relationships. This study found that at short run, the board of director's decisions on financing and investment decisions has positive relationship with return on equity, but are not significant predictors of return on equity. However, at long run the director's decisions on financing options i.e. ordinary share capital and debenture, investment in subsidiaries and granting of loans have a long run relationship with return on equity of deposit money banks in Nigeria for the period 1990-2018. Strong credit risk administration/procedures should be religiously followed especially (know your customer) and complied with by credit risk managers in all deposit money banks in Nigeria. Ordinary share capital should be a source of financing at the short run. These were some of the recommendations proffered, to the Government, monetary authorities, Central Bank of Nigeria, researchers and Deposit Money Banks in Nigeria.

KEYWORDS: Board of Directors, Ordinary Share Capital, Investment in Subsidiaries, Performance.

INTRODUCTION/BACKGROUND OF THE STUDY

In a firm hierarchy, the board of directors forms the highest executive body and as such is tasked with making strategic decisions aimed at capitalizing on the firm's market value. They manage companies in a manner whereby the business shareholders are afforded long standing and steady gains. They similarly ensure stability by keeping balance amid the investors and the need for growth of the firm (Ibenta and John, 2015; Akpan and Amran, 2014)

The boards of directors are an important organ that creates, develops, leverage, and manage the firm's resources thus influencing its performance (Ho and Williams, 2003). The board of directors as believes by Williams (2001) are responsible for the structuring relevant strategies and policies on how to obtain and best utilize the required resources of a business. He maintained that a firm`s board of directors can sway the formation of business investment strategies, policies and ultimate performance of an organization.

In emerging economies, severe episodes of collapse have been observed in which banks and likewise firms of other sectors has folded. Nigerian Banks for examples: Society General Bank Ltd, Mainstream Bank, Oceanic Bank, AfriBank, Bank of the North, Savannah Bank Plc. With the folding of these Nigerian banks and the operations of some of the banking operators, concerns have emerged in regards to the need in strengthening corporate governance in banks. This will ensure a well-organized functioning banking system which is also effective and by such boost confidence from the public (Soludo, 2004).

STATEMENT OF THE PROBLEM

In 2009, the apex bank (CBN) removed the board of directors of five commercial banks (Afribank Plc, Intercontinental Bank Plc, Union Bank of Nigeria Plc, Oceanic International Bank Plc and Finbank Plc) sighting reasons such as undue high level of non-performing loans attributable to non-adherence to bank's credit risk management. Nigerian banking industry had a situation where the directors of five commercial banks were dissolved due to decisions taken that affected the health of the bank. The CBN

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went further to state that these bank directors' actions were detrimental to the interest of their depositors and creditors. Hence the directors of those banks were removed and seized to be directors of those banks.

A study carried out on the relationship of Board of Directors characteristics and firm´s financial performance, using large sample of U.S firm's from 2005-2009 discovered that the degree of insider director positively influence firm performance. However, another study by adopting a multiple regression technique examined how board decisions (characteristics) influences performance of listed Nigerian deposit money banks. The study revealed that the performance of these banks is in no way significant influence by their executive directors.

This study intends to investigate the relationship between board of director's decisions and performance of deposit money banks in Nigeria. The variables for this study which makes it unique from other studies is the introduction of variables such as decisions on financing (ordinary share capital, debenture) and investments decisions (investments in subsidiaries) and management of resources (decisions on granting of loans) for the period 1990 to 2018.

OBJECTIVES OF THE STUDY

The study objective is to determine the relationship between board of director's decisions and the performance of deposit money banks in Nigeria. Other specific objectives include;

i. Determine whether there is a significant relationship between ordinary share capital and Return on Equity of Deposit Money Banks in Nigeria;

ii. Ascertain whether there is a significant relationship between Debenture and Return on Equity of deposit money banks in Nigeria;

iii. Determine the relationship between the investments in subsidiaries and Return on Equity of DMB in Nigerian banking industry ;and

iv. Establishing the relationship between Loans and Advances and Return on Equity of deposit money banks in Nigeria.

RESEARCH QUESTIONS

The following research questions are formulated to find out the link between the dependent and independent variables.

i. What is the relationship between ordinary share capital and Return on Equity of Deposit Money Banks in Nigeria?

ii. Does decisions on Debenture influence Return on Equity of deposit money banks in Nigeria?

iii. To what extent is the significant relationship between investments in subsidiaries and Return on Equity of DMB in Nigerian banking industry

iv. What extent does Loans and Advances influence Return on Equity of deposit money banks in Nigeria?

HYPOTHESIS

Based on the study questions, the following hypotheses are hereafter formulated in their null forms;

i. There is no significant relationship between ordinary share capital and Return on Equity of Deposit Money Banks in Nigeria.

ii. No significant relationship exists between Debenture and Return on Equity of deposit money banks in Nigeria.

iii. Investments in subsidiaries does not significantly influence and Return on Equity of Deposit Money Banks in Nigerian.

iv. Significant relationship does not exist between Loans and Advances and Return on Equity of deposit money banks in Nigeria.

SIGNIFICANCE OF THE STUDY

The following are some of the significance of this study.

i. It will enable the Central Bank of Nigeria to formulate corporate governance policies that would enhance sound financial practices in the banking industry in Nigeria.

ii. Deposit Money Banks will be better informed of decisions that are performance driven and to reduce non-performance driven decisions.

iii. DMB will be better informed of the need to adopt quality credit risk administration that would enhance better performance.

iv. Policy makers will be aided with informed decision on corporate governance that will aid banks performance in Nigeria.

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REVIEW OF RELATED LITERATURE
Conceptual Review
Board of Directors and Performance
The concepts of the board of directors was derived from the attributes or incentives variable that play a significant role in monitoring and controlling managers and can be described as a bridge between company management and shareholders (Dalton et al, 1998). The board constitutes a firms highest decision making unit, as the board is obligated to protect and maximize stakeholders' wealth, supervise firm performance, and assess managerial efficacy.
The main duty of the board is perceived to be the ratification and monitoring of decisions, overseeing the actions of managers/ executives.

Performance
Performance can be described as a measure that reveals the position of an organization. It helps to tell how far and well an organization has improved relative to its profitability as through its service delivery. The study by Abaenewe, Ogbulu and Ndugbu (2002), used Return on Asset (ROA) and return on equity (ROE) as proxies for performance, nonetheless, it should be noted that a firms' profitability is not the only performance indicator of an organization. Thus this study considers ROA as a measure of performance of Deposit Money Banks in Nigeria since it appraise the firms value, which reveals its worth in the market.

Executive (Inside) Directors and Financial Performance
In the works of Fama and Jensen (1983) they theorized that the most influential members of a firm are the internal directors or executive directors due to their cogent firm specific knowledge. Similarly, recent research show that inside directors are valuable in enhancing a board's advisory and monitoring functions leading to effective performance of an organization (Raheja 2005; Adams & Ferreira 2007). Executive directors simply refer to as inside directors.

Independent Non- Executive Directors and Financial Performance
Non-executive directors are outside directors who are independent of the firm. They are so-called independent directors since they have neither personal nor business relationships with the company (Ogbechie & Koufopoulos, 2010). In other words, non-executive directors are representatives or members of the immediate family of a shareholder and who has no business relationship with the company for the past three years or more and who has the ability to control or significantly influence the board or management of the company.

Responsibilities of Board of Directors
The Board of Director's are primarily responsible for the success or failure of a corporate entity. The principal role of the board is to make certain that immediate and long term health and prosperity of the bank is maintained (Tennyson 2016).
The following are some responsibilities of Board of Directors.
  ➢ **Determination Of Bank Objectives:** One very important responsibility of the board is the formulation and establishment of objectives, mission and vision statement to ensure proper direction of business of banking.
  ➢ **Formulating Bank Policies:** BOD formulates policies towards planning a strategy aimed at achieving stated goals. To make profit through legitimate means could be one of the policies of a bank. Policies may be established not only by the BOD but also by committees, officers and employees in any department of the bank. The policies may vary on particular matter for each area of the banks operation as areas differ in economic growth activities, needs and peoples tastes and attitudes.
  ➢ **Supervision of Loans and Investments:** The BOD creates committees to monitor and supervise loans and investments, they still have the responsibility of overseeing and ensuring that lending and investment activities are carried out in sound banking principles, laws and regulations imposed by the regulatory and supervisory authorities.
  ➢ **Maintaining Integrity:** Responsible board members follow conflict of interest policies as set out in the organization's by-laws. They maintain confidentiality regarding sensitive matters and other private board matters.

Selected Banks and their Board Composition in Nigeria

NAME OF BANK	EXECUTIVE DIRECTORS	NON-EXECUTIVE DIRECTORS	TOTAL NO.
DIAMOND BANK PLC	5	8	13
FIRST BANK PLC	5	8	13
GUARANTY TRUST BANK	6	7	13
ZENITH BANK	7	6	13
FIDELITY BANK	10	5	15

ZENITH BANK	7	6	13
UNITY BANK	6	7	13

(**Source:** Published Annual Reports of the banks)

THEORETICAL REVIEW

The stewardship theory: Donaldson and Davis, cited in Akingunola, Olusegun and Adedipe (2013), expounded that managers (Directors) are acceptable stewards who constantly work to achieve significant degree of profit and investors' profits (ROE). This theory emanates from the supposition that managers are motivated by achievement. Non-executive directors on the board serve this purpose better.

The stakeholder's theory: Stakeholder's theory is an extension of the agency view which expects the BOD to take care of the interests of shareholders. Nevertheless, this constricted view on investors has been reviewed and it is now expected that boards likewise address the interests of other stakeholder groups, as well as interest groups associated with social, environmental and ethical considerations (Freeman, 1984; Donaldson & Preston, 1995. Freeman, Andrew, Wicks, Bidhan & Parmar, 1991).

Agency theory: This theory sees stakeholders as the principals and management as their agents. Sanda, Mikailu and Garba (2005) further clarified that the occurrence lopsidedness in information can compel agents to chase interest which may be disadvantageous to the principals' interest. The process of joining these two interests can kindle a conflict amidst interest groups. Incongruent from stakeholder theory, managers in agency theory only boost principal's objective instead of optimizing multiple objectives.

Empirical Review

Horváth and Spirollari (2012) in their study observed the relationship among Board of Directors characteristics and firm´s financial performance, using large sample of U.S firm's from 2005-2009 uncovered that the level of insider director influences positively firm's performance.

Another researcher, Otuya and Ofeimun (2017) examined the Effects of Board Globalization and Financial Performance of Nigerian Banks; they used the ordinary least square (OLS) regression. The research outcome reveals that the level of riskiness in banks negatively affects it financial performance. This means that as a firm increases it financial risk through lending, its financial performance is negatively affected.

Odudu, Okpeh and Okpe (2016) studied how board characteristics influences performance of listed commercial banks in Nigeria. Secondary data were sourced from the annual reports and accounts of the sampled banks and analyzed using a multiple regression technique. Outcome should that the executive directors lacked any significant influence on performance on the banks.

Oyerinde (2014) reviewed corporate governance alongside bank performance by examining the level to which corporate governance added to the Nigerian financial crisis specifically in the banking sector amid the years 2000-2010. By using ROE and net interest income as pointers of bank performance, the pre and post consolidation reforms of banks were analyzed using panel data. The outcome of his findings averred that insider loan is negatively related to bank performance.

In another study conducted by Adusei (2011), the work tested the relationship amid board structure and bank's performance. The study used data from 26 banks operated in Ghana from 2005-2009. The result indicates that the relationship amid board of directors' size and banks' performance created mixed results. Thus it was discovered that, whereas the correlation between banks' performance and BODs size is negative as measured by ROE, which is used as performance indicator; contrarily, the evidence favours a positive relationship among banks' performance and the cost/income ratio.

METHODOLOGY

Data Collection

The data for this study was gotten from the website of the Central Bank of Nigeria (CBN) statistical bulletin and website of NDIC annual reports of insured banks in Nigeria for the period 1990 to 2018 (28 years).

Research Design

The study adopts a quantitative design as it is meant to collect and analyze given data on the relationship among two variables, namely, Board of Director's decisions and Performance of DMB in Nigeria.

Model Specification

Model specification is a scientific expression used to measure the economic relationship amid variables (dependent and independent variables). In this case we specify a functional and econometric models for the dependent and independent variables of the study.

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ROE= f(OS,DE,SUB,LO)…………..(1)

Assuming a linear relationship amongst the variables, the econometric relationship of the functional form is written as follows;

ROE= β_0 + $\beta_1$lnOS + $\beta_2$ln DE + $\beta_3$ln SUB +$\beta_4$lnLO +U…….(2)

Where:

ROE= Return on Equity

OS= Ordinary shares

LnOS= natural log of ordinary shares

DE= Debentures

lnDE= natural log of Debentures

SUB=Investments in subsidiaries

lnSUB= natural log of investment in subsidiaries

LO= Loans and advances

lnLO= natural log of loans

U= stochastic error term

B0, = constant

b1, b2, b3, b4, = coefficients and are the parameters to be estimated

Pre-Test

The following pre-test will be conducted to ascertain the validity and global acceptability of the variables used as candidates for the selected model.

Test for Stationarity (Unit Root Test)

The test for stationarity of data is an assumption of an econometric model. It would reveal whether the data is stationary at level, first difference or whether it's a mixed order of integration. This result will give direction of the statistical tool to use to evaluate the parameters.

Test for Autocorrelation

Short Run estimation (Autoregressive Distributed Lag)

Test for Long run relationship (Bounds Test)

These tests would reveal whether there exists a long run relationship amid the dependent and independent variables.

Data Presentation, Analysis and Interpretation

The data collected on ROE, ordinary share capital, debentures, investments in subsidiaries and loans / advances of all commercial banks in Nigeria from the various sources will be presented, analyzed and interpreted in this section.

DATA PRESENTATION

Table 1: Showing Annual Roe, Ordinary Shares (Os), Debentures (De), Subsidiaries (Sub), Loans and Advances (Lo) for the Period 1990 To 2018

YEARS	ROE (%)	OS (N'000)	DE(N'000)	SUB(N'000)	LO(N'000)
1990	63.2	3.7	0	0	25.2
1991	26.4	4.3	0	0	29.9
1992	9.7	3.8	0.2	0.2	38.8
1993	33.9	4.4	0.2	0	42.6
1994	12.62	5.4	0.3	0.1	84.7
1995	44.84	6.5	0.8	0.2	122.8
1996	56.78	8.7	0.5	0.4	153.2
1997	96.56	17.7	0.8	0.4	214.8
1998	86.08	25.6	0.5	1.7	244.7
1999	80.59	31.5	0.4	1.4	311.7
2000	99.45	44.2	0.3	1.6	429.3
2001	114.3	75.2	0.2	2.2	714.5
2002	41.63	101.3	0	3.8	805.3
2003	29.11	122.7	2.8	8.8	1012.4

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2004	27.23	142.3	3	9.6	1278.6
2005	4.81	172.3	4	13.6	1584.5
2006	17.36	170.5	3.7	19	2096.3
2007	23.07	153	79.8	38.9	3861.5
2008	22.12	210.9	76.1	84.5	6051.7
2009	-64.72	219.51	343.47	155.97	7385.8
2010	163	249.71	391.8	156.29	6359.6
2011	0.28	220.21	146.37	226.04	6098.5
2012	22.2	192.4	160.55	207.77	7034.1
2013	19.14	239.16	309.98	239.21	8761.19
2014	14.7	301.18	767.78	313.83	11633.02
2015	16.93	257.22	683.33	311.59	11656.36
2016	12.56	287.27	985.57	335.82	14283.11
2017	4.7	305.26	1314.99	390.15	13851.83
2018	9.73	340.08	1251.42	444.11	12974.85

The above table has shown that in 1990, ROE was 63.2%, in same year, the Ordinary shares N3.7 billion, there was no debenture and no investment in subsidiary, the loans and advances given was N25.2billion.

In year 2000, while ROE increased to 99.45%. In same year, the Ordinary share capital rose to N44.2 billion, debenture N0.3billion, investment in subsidiary N1.6 billion, the loans and advances rose to N429.3billion.

In year 2010, while ROE increased to 163%. In same year, the Ordinary share capital rose to N249.71 billion, debenture rose to N391.8 billion, investment in subsidiary also increased to N156.29 billion, the loans and advances rose to N6,359.6billion.

Table 2: Showing data in their logged form

LOGGED FORM OF ROE, OS,DE,SUB AND LO					
Years	Lnroe	Lnos	Lnde	Lnsub	Lnlo
1990	4.1463043	1.3083328			3.226844
1991	3.273364	1.458615			3.3978585
1992	2.2721259	1.3350011	-1.6094379	-1.6094379	3.6584202
1993	3.523415	1.4816045	-1.6094379		3.7518543
1994	2.5352829	1.686399	-1.2039728	-2.3025851	4.4391156
1995	3.8031006	1.8718022	-0.2231436	-1.6094379	4.810557
1996	4.0391842	2.163323	-0.6931472	-0.9162907	5.0317443
1997	4.5701646	2.8735646	-0.2231436	-0.9162907	5.3697074
1998	4.4552771	3.2425924	-0.6931472	0.5306283	5.500033
1999	4.3893746	3.4499875	-0.9162907	0.3364722	5.7420412
2000	4.599655	3.7887248	-1.2039728	0.4700036	6.062156
2001	4.7388266	4.3201512	-1.6094379	0.7884574	6.571583
2002	3.7288211	4.6180864		1.3350011	6.6912149
2003	3.3710818	4.8097424	1.0296194	2.1747517	6.920079
2004	3.3043193	4.9579375	1.0986123	2.2617631	7.153521
2005	1.5706971	5.1492371	1.3862944	2.6100698	7.3680242
2006	2.8541687	5.1387353	1.3083328	2.944439	7.6479292
2007	3.1385331	5.0304379	4.3795235	3.6609943	8.258811
2008	3.0964822	5.3513841	4.3320483	4.4367515	8.7080945
2009		5.3913978	5.8390998	5.0496637	8.9073145
2010	5.0937502	5.5203002	5.9707515	5.0517133	8.7577208
2011	-1.2729657	5.3945816	4.9861377	5.420712	8.7157981

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2012	3.1000923	5.2595765	5.0786054	5.3364317	8.858525
2013	2.9517804	5.4771328	5.7365078	5.4773418	9.078087
2014	2.6878475	5.7077081	6.6435032	5.7488514	9.3616029
2015	2.8290872	5.5499317	6.5269779	5.7416882	9.3636072
2016	2.5305172	5.6604225	6.8932202	5.8165753	9.566833
2017	1.5475625	5.7211639	7.1815843	5.9665313	9.5361726
2018	2.2752139	5.8291809	7.1320342	6.0960723	9.4707681

Researchers e-views logged output values

Test For Stationarity (Unit Root Test)

The Augmented Dickey Fuller (ADF) test option was used to test for the stationarity of the data. The following results were obtained using e-views.

Table 3: Showing Order of Stationarity-Unit Root Test

VARIABLES	ADF TEST STATISTIC AT		CRITICAL VALUES	ORDER OF INTEGRATION
	LEVEL	1ST DIFF		
LnROE	-4.646204		-3.711457 -2.981038 -2.629906	1 (0)
LnOS		-3.745635 Prob. 0.0362	-4.339330 -3.587527 -3.229230	1 (1)
LnDE		-2.279378 Prob. 0.0252	-2.685718 -1.959071 -1.607456	1(1)
LnSUB		-5.256176	-3.752946 -2.998064 -2.638752	1(1)
LO		-3.436066 Prob. 0.0184	-3.699871 -2.976263 -2.627420	1(1)

Significance at 10%, Significance at 5%, Significance at 1%.

The test outcome above shows the order of integration of the dependent and independent variables. While LnROE are stationary at level i.e. 1(0), ordinary share capital (LnOS), Debentures (LnDE), investments in subsidiary (LnSUB), and loans (LnLO) in their natural logs are all stationary at first difference i.e. 1(1).

The Auto Regressive Distributed Lag (ARDL) estimation option would hereafter be used to estimate the equation.

Interpretation of Results

The results of the ARDL, Bounds test Co-integration, Autocorrelation; results will be interpreted to define the level of relationship that exists to enable acceptance or rejection of the stated hypothesis.

Short Run ARDL Result

The table below shows the test result obtained from the e-views 10 software indicating the short run relationship between the dependent variables and the independent variables.

Table 4: Short Run Results

Dependent Variable: LROE			
Method: ARDL			
Date: 11/13/20 Time: 05:21			

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Sample (adjusted): 1995 2018				
Included observations: 21 after adjustments				
Maximum dependent lags: 2 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (2 lags, automatic): LOS LDE LSUB LLO				
Fixed regressors: C				
Number of models evaluated: 162				
Selected Model: ARDL(1, 2, 0, 1, 1)				
Note: final equation sample is larger than selection sample				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LROE(-1)	-0.428986	0.192662	-2.226629	0.0478
LOS	1.557724	1.684722	0.924617	0.3750
LOS(-1)	0.529885	2.325662	0.227842	0.8239
LOS(-2)	-3.105947	1.762133	-1.762607	0.1057
LDE	-0.258300	0.390694	-0.661131	0.5221
LSUB	-0.257892	0.938799	-0.274704	0.7886
LSUB(-1)	0.608493	0.716283	0.849514	0.4137
LLO	4.240538	1.928575	2.198793	0.0502
LLO(-1)	-3.757251	2.286508	-1.643227	0.1286
C	3.517697	9.890062	0.355680	0.7288
R-squared	0.751293	Mean dependent var		3.075238
Adjusted R-squared	0.547806	S.D. dependent var		1.365239
S.E. of regression	0.918060	Akaike info criterion		2.972645
Sum squared resid	9.271172	Schwarz criterion		3.470037
Log likelihood	-21.21278	Hannan-Quinn criter.		3.080592
F-statistic	3.692090	Durbin-Watson stat		1.906498
Prob(F-statistic)	0.022665			
*Note: p-values and any subsequent tests do not account for model selection.				

The short run result in table 4, shows an R-squared of 0.751293% and adjusted R-squared of 0.547806%. The R-squared of 0.751293% implies that the independent variables are 75% best fit and good candidates that predict the movement of dependent variable, however the adjusted R-squared accounts for 54%. Thus OS, DE, SUB and LO are best fits to predict or influence the direction of ROE in Nigerian for the date under review.

In table 4 above, the short run results shows that, at lag 1, the OS has a positive relationship with ROE with 0.529885%, thus a 1 percent increase in the decision to obtain capital through Ordinary shares will lead to a growth in ROE. The probability value of 0.8239 which exceeds the critical value of 5% implies that OS does not significantly influence the direction of ROE. Thus the null hypothesis is accepted.

At lag 1, DE, has a negative relationship with ROE with -0.258300%, thus a 1 percent growth in the decision to obtain capital through debentures will result to a -0.258300% decrease in ROE. The probability value of 0.5221 which exceeds the critical value of 5% implies that DE does not significantly influence the direction of ROE. Thus the null hypothesis is accepted.

At lag 1, the SUB has a positive relationship with ROE with 0.608493%, thus a 1 percent upturn in the decision to Invest in subsidiaries will result to a growth in ROE by 0.608493%. The probability value of 0.4137 which exceeds the critical value of 5% implies that SUB does not significantly influence the direction of ROE. Thus the null hypothesis is accepted.

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At lag 1, LO has a negative relationship with ROE with -3.757251%, thus a 1 percent growth in the decision to grant loans and advances will result to a -3.757251% decrease in ROE. The probability value of 0.1286 which exceeds the critical value of 5% implies that LO does not significantly influence the direction of ROE. Thus the null hypothesis is accepted.

These short run results aligns with the stakeholders theory which asserts that BODs are not necessarily interested in short-sighted on stakeholders' interest and it is now expected that boards do consider the interests of other interested party such as interest groups associated with social, environmental and ethical considerations (Freeman, 1984; Donaldson & Preston, 1995. Freeman, Andrew, Wicks, Bidhan & Parmar, 1991).

It also agrees with **Agency theory,** in which shareholders are seen as the principals and management as their agents. Sanda, Mikailu and Garba (2005) further elucidated that irregularities in information can cause agents to go after interest of detrimental outcome to the principal's interest. The course of joining these two interests could create a struggle amid the interest groups. Managers only optimize principal's objective rather enhancing multiple objectives.

Table 5: Long run Bounds Test Result

ARDL Long Run Form and Bounds Test				
Dependent Variable: D(LROE)				
Selected Model: ARDL(1, 2, 0, 1, 1)				
Case 2: Restricted Constant and No Trend				
Date: 11/13/20 Time: 05:35				
Sample: 1990 2018				
Included observations: 21				
F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	10.29045	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37
Actual Sample Size	21		Finite Sample: n=35	
		10%	2.46	3.46
		5%	2.947	4.088
		1%	4.093	5.532

Table 5 above shows the bounds test outcome of the long run relationship amid ROE and the independent variables; OS, DE, SUB and LO.

The bounds test result as revealed in table 5 revealed an F –statistic value of 10.29045% which exceeds the upper bound of 3.49 % at 5% level of significance using the actual sample size after adjustment. The null hypothesis is rejected at 5% level.

These results indicates that there exists, long run relationship amid decisions taken on ordinary share capital, debentures, investments in subsidiaries and loans of commercial banks for the 1990-2018 in Nigeria.

This position agrees with the stewardship theory by Donaldson and Davis (2013) that directors are good agents who thoroughly work to realize high level of profit and shareholders returns.

Autocorrellation-Durbin Watson

The outcome of the Durbin Watson show a 1.906498% for the equations ROE, this means that there is a lack of presence of autocorrelation in the data. Thus, the global criterion for the test of the presence of autocorrelation is met as one of the regression assumptions.

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DISCUSSION OF FINDINGS

The findings above show that at short run, the BODs decisions on financing through ordinary shares and investment in subsidiaries has positive relationship with ROE but is not significant predictors of ROE. This result aligned with De-Vuyst & Ooghe (2001)) whose study found a significant positive association between the number of independent external directors and ROE likewise return on asset.

However, the Decision on financing option through debenture and decision on issuance of loans and advances has a negative relationship with ROE.

This accounts for why when debentures and loans are given out to bank customers there is always default in payment, and insider related credit or loans which are often not paid back leading to bank failures. This situation agrees with the Agency theory, which posits that shareholders are perceived to be the principals and management as their agents. Sanda, Mikailu and Garba (2005) further elucidated that irregularities in information can cause agents to go after interest of detrimental outcome to the principal's interest. So directors are after their interest and not the concern of the bank owners.

However, at long run the director's decisions on financing options i.e. ordinary share capital and debenture, investment in affiliates and granting of loans have a long run relationship with ROE of commercial banks in Nigeria. This outcome agrees with the stakeholder theory which asserts that BODs are not necessarily interested in short-sighted on investors' interest alone and it is now assumed that boards do consider the interests of other stakeholder groups as cited by Freeman (Freeman, 1984; Donaldson & Preston, 1995. Freeman, Andrew, Wicks, Bidhan & Parmar, 1991). This over time leads to high ROE and performance of commercial banks in Nigeria?

SUMMARY, CONCLUSION AND RECOMMENDATION

This section summarized, made conclusion and proffers recommendations on decisions made by board of director's and performance of commercial banks in Nigeria for the period 1990 to 2018.

Summary

The discoveries of the study showed that at short run the decisions of BODs on financing through ordinary shares and investments in subsidiaries has positive relationship with ROE, while decision on financing through debentures and issuance of loans or credits to bank customers have negative relationship and insignificant predictors of ROE. This position aligns with a previous study by Priya & Nimalathasan (2013) outs that the independent non-executive director actions are responsible for reduction in firm performance and this may affect firm performance negatively. However, at long run the director's decisions on financing options i.e. ordinary share capital and debenture, investment in affiliates and granting of loans have a long run relationship with ROE of deposit money banks in Nigeria.

Conclusion

We have seen so far that the decisions taken by BODs in the banking industry for the period reviewed showed that their decisions at the short run does not significantly predict the movement of ROE. Thus decisions like sourcing for capital through the concern of ordinary shares, debenture, investments in subsidiary and granting of loans does not significantly cause the movement of ROE. It implies that other than those four variables, variables that are not encompassed in this study are responsible for the movement of bank's performance.

In time however, it was discovered that the strategic decisions of BODs on sourcing for capital through the matter of ordinary shares, debenture, investments in subsidiary and granting of loans has a long run relationship with the movement of ROE.

Recommendations

Given the results of this study, recommendations would be made to major stack holders like the Central Bank of Nigeria, Commercial Banks, Monetary Authorities, Government, researchers, and scholars as follows;

- Strong credit risk administration/ procedures should be religiously followed especially (know your customer) and complied with by credit risk managers in all deposit money banks in Nigeria with the view of reducing non-performing loans.
- Ordinary share capital should be sourced as a financing option especially at the short run period
- There should also be in existence, a proper internal control structure and self-governance regulations so as to detect early rule violations and also monitor systemic problems for early remediation and solutions.
- Deposit money banks in Nigeria should have in their board's persons of skills, expertise, and experience who would like to protect their integrity, reputation and professional competence.

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- Banks should engage in the development and implementation of strategic training for board members and senior bank managers in accordance with current practices.
- An effective legal framework should be developed by the legislature to regulate and specify the rights and responsibilities of a bank, its directors, and shareholders.

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Assessment of Ecoturistic Opportunities of Shakhrisabz District

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ABSTRACT: Ecotourism and its development depends not only on the socio-economic conditions of the study area, but also on the natural conditions of the area, the presence of ecotourism sites and their geographical location. Because the characteristics of natural conditions allow us to determine the ecotourism potential of the region and what species can be developed.

KEYWORDS: Ecotourism, Kashkadarya region, Shakhrisabz district, sustainable development, Miraki, Gissar Mountains, Tamerlane cave, landscape.

INTRODUCTION

Tourism activity in our country has been considered at the level of the main state policy since the early days of independence. In this regard, the Decree of the President of the Republic of Uzbekistan dated February 3, 2018 No PF-5326 "On additional organizational measures to create favorable conditions for the development of tourism potential of the Republic of Uzbekistan", PQ-3514 "On measures to accelerate the development of domestic tourism" In order to ensure the implementation of the decisions and orders of the relevant ministries and organizations, all the necessary organizational and legal mechanisms for the development of the industry have been created. Today, the necessary conditions have been created in our country for the development of tourism and its rise to new heights, to make our country one of the world's tourist centers. In the case of Kashkadarya region alone, the number of companies and organizations engaged in tourism in 2019 was 7, and in 2019 they served 11,873 visitors (Figure1). The number of tourists from foreign countries amounted to 361,738. (30.7%).
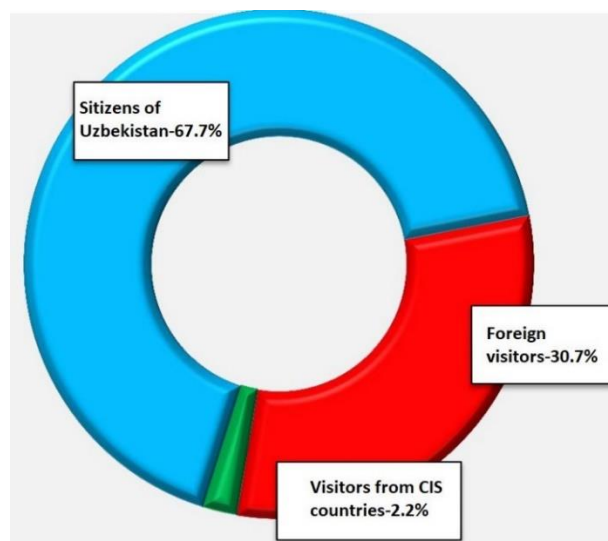
Figure 1. The share of visitors served in Kashkadarya region in 2019 among the citizens of the CIS, foreign and Kashkadarya region, in percent (source: https://www.qashstat.uz/images/tahliliy/turizm/turizm19.pdf)

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LITERATURE REVIEW AND METHODOLOGY

The tourism industry is a sector of the economy that, along with the accumulation of large investments and resources, performs the spiritual and educational functions necessary for an independent state and society. Through ecotourism, foreign visitors get an idea of the rich and unique nature of Uzbekistan, while citizens of Uzbekistan get acquainted with their homeland. It is sufficient to say that they have the opportunity to form a sense of national pleasure and pride in their homeland (Aliqulov 2018, Tukhliyev 2006).

Ecotourism is a network of scientific directions and practices. In addition, it performs various social, economic, political, environmental functions (Alexandrova, 2008). Revealing the scientific and theoretical foundations of ecotourism and its natural geographical aspects, identifying and analyzing the ecotourism potential of the nature of Shakhrisabz district, showing ways to use them wisely are among the current issues (Aliqulov & Eshonkulov, 2021; Khoshimov Murodjon, 2009).

The main purpose of this study is to reveal the development of the scientific basis of eco-tourism in Shakhrisabz district of Kashkadarya region. To achieve this goal requires the following tasks:

- identification of the object and subject of ecotourism;
- classification of ecotourism in the territory of Shakhrisabz district;
- to reveal the natural geographical aspects of ecotourism;
- identification of important factors that characterize the ecotourism potential of nature (landscapes) of Shakhrisabz district and identify indicators that characterize them;
- ecotouristic zoning of Shakhrisabz district;

Problems of sustainable development are especially important for nature reserves, which have unique natural sites and wonders related to tourism. The income of the majority of the population living in such areas is formed by the high influx of tourists. This situation is more typical for mountainous and foothill areas (Aliqulov, 2018). Shakhrisabz district has such opportunities.

The district was founded on September 29, 1926. It is bordered by Kitab district in the north, Tajikistan and Surkhandarya region in the east, Yakkabag and Kamashi districts in the south, and Chirakchi district in the west. The area is 1.70 thousand km². There is a city (Shakhrisabz) in the district: 1 town (Miraki), 12 rural communities (Dukchi, Kunchikar, Muminabad, Namaton, Aksuv, Todamaydon, China, Shakarteri, Shamaton, Uzbekistan, Kutchi, Hisorak). The center is the city of Shakhrisabz. The district is located in the north-eastern part of Kashkadarya region, in the foothills of the Gissar Mountains. The western part of the district consists of an open oasis - a plain adjoining the Karshi desert. The Aksu, Kashkadarya, Tankhozdarya, Kyzyldarya, Tamshush, and Miraki rivers flowing from the mountains formed ravines. The climate is continental. The average annual temperature is 14.7°. The average January temperature is 0.8°, and the lowest is -26°. The district has a high ecotourism potential. For example, Gilan and Kul villages, Varganza and Hazrati Bashir villages, Amir Temur cave, Sarchashma and Suvtushar cultural resorts. In addition, the Gissar State Reserve, located in the district, is an important ecotourism site. It is a state reserve located to the west of the Gissar mountain range (in the mountainous areas of Yakkabag and Shakhrisabz districts) and was established on the basis of the Kyzylsuv (1975) and Miraki (1976) reserves (1983). The area is 80,986.1 ha, of which 12,203 ha are forests, 2,745 ha are grasslands and 17 ha are water basins. Created to preserve natural landscape complexes and ecosystems of the Gissar Range.

The natural objects of the reserve are unique. Here is one of the deepest caves in Central Asia - the famous cave of the Tamerlane (Amir Temur Kuragani). At an altitude of more than 2,900 meters, the settlement consists of two caves that are almost 1,000 meters long. The caves here have high stalactite groves and a beautiful underground lake fed by unique springs. Notable tourist attractions include Hazrat Sultan Holy Mountain, fossilized dinosaur footprints, Suvtushar waterfalls, Kizilshavar Karst Plateau, Khojakarshavar High Mountain Plateau, Janka High Mountain Lake, Kalasay Gorge, Zarmas Gorge, Seversev Glacier, Gilan, Zarmas and Lake sermanzara mountain villages, Kyzylgaz summer pastures can be found.

There is another miracle in the nature corner of the Miraki branch of the reserve - the famous Suvtushar waterfall. It is the longest and wettest waterfall in the country. In May-July, the 84-meter-high waterfall releases 5-6 cubic meters of water per second. The particles formed in this process are scattered for 250-300 meters, during strong winds up to 500-600 meters and create a wonderful microclimate. Considered a beautiful gift of nature, this waterfall is reminiscent of a beautiful girl, with fragments of water falling from a huge boulder 2,100 meters above sea level. The water in the strong current bubbles and turns white. That is why the locals also call him "Sutshari" (milk ball). Therefore, the study of natural and geographical features and landscape structure of this area is of great practical importance in the rational, efficient and economical use of natural resources.

The purpose of the development of ecotourism in Shakhrisabz district is:

- demonstration of ecotourism potential, natural potential and resources of Shakhrisabz in the market of tourist services of the Republic;
- encourage scientific research aimed at more efficient use of ecotourism resources and opportunities of the region, especially nature and geosystem's

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- increasing the role and share of ecotourism in the development of tourism;
- rapid improvement of the quality of ecotourism services and rapid increase in the volume of ecotourism services in the tourist activities introduced in Shakhrisabz;
- creation of scientific, innovative and methodical developments aimed at the development of ecotourism in the future;

Another important point to note is that the majority of the local population is uninformed of the historical monuments, shrines and health resorts in their area. In this regard, it is necessary to further expand the awareness of the tourist potential of the district, to provide a series of materials in the media. The presence of local residents and foreign tourists can be further enhanced by organizing various entertainment events, festivals and campaigns at the existing historical monuments, shrines and health resorts in the region.

CONCLUSION

In summary, the article focuses on the scientific solution of tourism problems, focusing on the classification of ecotourism on the example of Shakhrisabz district, ecotourism opportunities of geographical complexes, the separation of ecotourism areas and the organization of routes in them. In the process of solving this ecotourism problem, the following interrelated scientific results can be achieved, namely:

Geographical complexes (landscapes) are the main object of assessment in determining the ecotourism potential of the region, which objectively reflects the natural potential of the region. Therefore, we need to consider the identification, mapping and comprehensive study of geocomplexes as the first step in identifying and assessing the ecotourism potential of the region.

The unique natural conditions of the region and the diversity of ecotourism opportunities make ecotourism zoning of its territory.

Nowadays, most of the income abroad (Canada, Australia, Germany, several African countries, Nepal, etc.) comes through tourism. In order to increase the amount of foreign currency in Uzbekistan, including in Shakhrisabz district, it is necessary to develop tourism, especially ecotourism.

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Government Policy Response to COVID-19 Pandemic in Nigeria

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ABSTRACT: The principal responsibility of any government is to provide for the security and welfare of the citizenry. A major feature of the well-being of the citizenry is quality healthcare service delivery. There is no doubt that the novel COVID-19 pandemic that ravaged the world exposed the vulnerability of citizens to social and economic challenges, thus imposing tremendous stress on governments, globally. In other words, governments were taken to task on their responsibilities. Both developed and developing countries were not spared as casualties cut across the divide. In response to the health challenges and subsequent socio-economic impacts, governments, the world over, adopted various policy measures to address the pandemic. In this paper, the author examined the policy response of the Nigerian government to the pandemic in order to mitigate the harsh negative impacts on the citizenry. The theoretical underpinning of this study is the systems theory as developed by David Easton. The paper is descriptive and therefore adopted secondary data from books, journal articles, magazines, newspapers, as well as other periodicals, both online and offline for discussion and analysis. The study observed that although, the Nigerian government adopted measures and strategies in the fight against the pandemic, the policy strategies and mechanisms were weak and reactionary, even as there were no feedback mechanisms to ascertain policy outcome. The paper, amongst others, therefore recommended that a state of emergency be declared in the economic sector of the country to help revive the economy and improve the well-being of the citizenry, while a robust and workable National Health Insurance Policy be established to address the health needs of the citizens.

KEYWORDS: Policy Response; COVID-19 Pandemic; Economic Impact; Health Sector.

INTRODUCTION

The protection of lives and property of the citizens, as well as the enhancement of their welfare is a fundamental objective of the state. Such goals promote patriotism, loyalty and obedience of citizens to the state. The extent of involvement of the state in promoting the welfare of the citizenry is reflective on the stability and progress the state enjoys. To achieve this, public activities encompass various spheres of human endeavours such as agriculture, education, health, etc. Governments strive to ensure that the welfare of the citizenry is promoted in these sectors. These are achieved through programmes and policies. A major and critical sector in the promotion and enhancement of the living standard of the citizenry is the health sector. A healthy population results to a healthy nation. This implies that there is a critical need for policies and programmes that would improve both the health and the social and economic sectors of the state. It also impacts on the economy of the society. The year 2020, no doubt, exposed the vulnerabilities of the socio=-economic sector of most countries of the world. Both developed and developing countries faced the challenges posed by the novel COVID-19 pandemic that ravaged the world. The world economy was temporarily put to a halt as a result of various nations locking down their borders- air, land and sea, to stem the spread of the contagious virus. It resulted in economic difficulties that the world had not witnessed in over a century. A lot of health facilities in countries of the world were overrun, as the increased number of patients infected with the virus overstretched the facilities. Governments were forced to make contingent plans and arrangements to address the challenges. Lives were lost, livelihoods affected, psychological trauma were experienced, resulting to severe socio-economic challenges. As the Pandemic raged on, governments adopted varied strategies and policies to address the problem. Policies which included social and economic were adopted by both developed and developing countries, Nigeria inclusive. Most countries adopted some palliative measures, some applied bail out strategies to mitigate the harsh economic and social realities necessitated by the pandemic. In order words, governments responded in various ways. This paper attempts to examine the policy response of the Nigerian government to ameliorate and mitigate the negative and harsh effects of the corona virus pandemic on the citizens. This will be achieved by setting out an introduction to the study

and then take a conceptual clarification of the major concepts relevant to the study. We shall examine the theoretical framework and how they apply in this paper and further lay out the methodology of the study. The paper will also consider review of relevant literature on the subject matter and proceed to discuss and analyze information obtained and will finally summarize and make recommendations based on the findings of the study.

CONCEPTUAL CLARIFICATIONS

Policy Response: Dye (1972) provided a commonly used definition of what a public policy is. According to him, a public policy is what government chose to do or not to do. This definition makes it trite to state that the activities of government are very important in the sustenance of the state. To this end, it would be safe to state that part of what government does is to engage in decision making. It is this very important function that creates room for the implementation of policies of government. The citizens are engaged in a number of activities from social, to economic and political and governments participate in these activities by way of regulation and control. This is in a bid to evolve a stable and conducive society for the good of all. In order to discharge its responsibilities, governments make decisions by way of policy response. Such response could be in form of proactive measures to prevent something, which is usually, negative from occurring, or reactive, which implies responding to an issue that has already occurred. Whether it is proactive or reactive, government's response goes a long way in addressing the challenges faced by the citizens through decision making.

COVID-19 Pandemic: This refers to the corona virus which was said to have originated from Wuhan, China in 2019. The World Health Organization (WHO) declared corona virus a pandemic in February 2020. The virus is characterized by flu –like symptoms such as cold, high body temperature, cough, sneezing and difficulty in breathing. The symptoms are said to attack the immune system of the body, thereby causing severe fatalities to the body system. COVID 19 was described as a novel disease and so it was difficult to find drugs that would cure it. However, the World Health Organization and medical experts advised that the basic remedies were to avoid body contacts and movements of persons from one place to the other, the use of face masks, regular washing of hands and the use of hand sanitizers. The aim was to help curb the spread, while efforts were made to find the cure and vaccine for its remedy.

Economic Impact: The resultant effect of the COVID-19 pandemic was the huge negative impact on the world economy it created. As a result of the restriction of movement occasioned by the lockdown of many countries, all economic activities were put to a halt. Industries and businesses were closed; there were no flights, both local and international. Businesses suffered as there was no body to patronize a lot of them. Jobs were lost, which affected a lot of livelihoods. Countries that depended on crude oil suffered huge deficits as the price of oil went an all-time low due to the lockdown of most economies. Also, countries that depended on tourism suffered the same fate as the restriction on travels both locally and internationally affected the tourism sector. These social and economic impacts, no doubt, affected the quality of life of the citizens in both developed and developing countries. The world energy market was heavily affected as the price of crude oil nose-dived in the international market. As a matter of fact, the impact of the COVID 19 pandemic necessitated the call from the various sectors of the economy for various forms of bail out from respective governments. Sectors such as the agriculture, education, transportation, sports, etc had made several calls to respective governments for bail out in other to mitigate the huge economic impact suffered as a result of the COVID-19 Pandemic.

Health Sector: Health is a very important aspect of the human life, as a healthy body is makes room for improved productivity in all ramifications. The health sector here refers to the capacity and infrastructure provided for medical purposes to address the well-being and health needs of citizens. The health sector implies both the medical and health practitioners and infrastructure such as hospital facilities which include laboratory facilities and equipment to address the health-care needs of citizens. The health-care practitioners include all those professionals in the health care sector that are involved in the provision of healthcare services to the population, such as doctors, nurses, laboratory technologists, as well as other Para medical staff who in one way or the other are engaged in health-care service delivery. The quality of service-deli9very is also a major component of health care and so must be considered very important in the sector.

THEORETICAL FRAMEWORK

In other to properly explain this study in line with scientific principles, a theoretical framework was adopted to guide the research. The theoretical underpinning of this study is anchored on the Systems Theory. The Theory is derived from David Easton's conceptualization and analysis of political systems Allen and Gilbert (2011). Easton's behavioural approach to politics proposed that a political system could be seen as a delimited and fluid system of steps in decision making and that change in the social or physical environment surrounding a political system produces "demands" and "supports" for actions or the *status quo* directed

as inputs towards the political system through political behavior. These demands and supporting groups stimulate competition in a political system leading to decisions or outputs directed at some aspects of the surrounding social or physical environment. A key assumption of this theory with regard to public policy making is that the process is characterized by interaction of the environment, political system and output Allen and Gilbert (2011). As it applies to this study, the demand here is the incident of the COVID-19 pandemic which necessitates the response of the state by way of decision making or policy response which is the support. This theory has been used to explain how humans respond to hazards in the environment (Burton, Kate and White, 1978, Mmom, 2013, Nwodim, 2017).

Research Questions:

The study is premised on the following research questions:

- What are the socio-economic impacts of the COVID-19 pandemic?
- Did the government respond appropriately to the incidence of the COVID -19 pandemic?
- What is the nature of the response by government to the COVID-19 Pandemic?

METHODOLOGY

The paper is qualitative and as such the method of data collection adopted for this study is mainly secondary. That is from sources such as historical and archival records, internet materials, academic journals, newspaper reports, news magazines, special reports and documents from relevant government agencies. Useful information were elicited from these sources from which discussion and analysis were based.

REVIEW ON LITERATURE

The art of governance implies adequate response by the state authorities to the yearnings and aspirations of the citizenry. This is what governments, all over the world, strive to achieve. Governance and policy response are two concepts that influence both development and underdevelopment of the state. To explain further, good governance attracts development and improved wellbeing of the citizens, while bad government or maladministration reflects on the quality of life of individuals in the state, which is characteristically poor and low. Development scholars and analysts have bared their minds on efforts at providing responsible service to the citizens through governance. However, reality shows that many states, particularly those of the developing countries lack proper or good governance and so impacts negatively on the lives of the citizenry. We may consider how some scholars and relevant bodies consider and view governance. The World Bank (1988) defines governance as the manner in which power is exercised in the management of a counyry's economic and social resources. In other words, the management of resources is an essential feature of governance and influences policy outcome. On their own part, Daramola and Olowopolu (2017, p.15) define governance as "the process of decision making and implementation with focus on effectiveness of the government in providing the process and structure for mobilizing the state resources for the interest of the people". Contributing in this regard Yaqub and Abubakar (2005) aver that governance is the totality of the process of constituting a government, as well as administering a political community. Wariboko (2019) on his part refers to governance as the practices of command (co-ordination or control) in an organization or polity. It is the set of institutional forms of control for maintaining and destabilizing order necessary for human flourishing in an organized polity. For Serageldin and Landell-Mills (1991) governance incorporates not only integrity, efficiency and economy of government, but its effectiveness is measured by the ends to which governance organization and activity are directed. In the opinion of Hufty (2011), it is the process of interaction and decision making among the actors involved in a collective problem that leads to creation, reinforcement or reproduction of social norms and institutions. Governance relates specifically to the use of political authority and their exercise of control to manage resources for social and economic development of society (Ugoanni, 2019). Definitely, common features run across the various opinions and definitions on the concept of governance. They include the reality that it is an activity which involves some level of management and that the management is geared towards achieving certain goals in the society. However, the reality shows that governance is far from achieving this objective, hence there are various results on the act of governance. Some governance objectives produce good results and others poor or bad results and hence the concept of good governance becomes imperative here.

Like that of governance, some scholars and analysts have given various opinions on the concept of good governance. For instance Ibodje (2012) asserts that good governance is one that is characterized by accountability to the management of public resources, rule of law in the conduct of public affairs, predictability of institutional performance and behaviour, justice, equity and effectiveness in the management of the economy. For Ekpu (2009, p. 11), "good governance means respect for the rule of law, accountability, transparency, delivery on election promises and creation of an atmosphere for the flowering of freedom and for the achievement of the greatest good for the greatest number of our people". On their own part, Akomodele and Akomodele

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(2012, p. 62) aver that "good governance is that which meets the needs of the people as it relates to development and better life". Stapenhurst and Kpundeh (1999) assert that good governance entails efficient and effective reciprocity between leaders and the led, with responsibilities incumbent upon the government. It is obvious that the concept of governance, like governance has features that run across the various definitions. There are definitely features of accountability, transparency, integrity and responsible leadership which ultimately translate to policies that bring about result-oriented decision-making.

Further to the foregoing assertion, the concept of governance as explained by various scholars identify key characteristics such as responsiveness, transparency, equity, effectiveness, efficiency, accountability, participation, rule of law and inclusiveness as elements of good governance (Ewin, Nnamani and Eberinwa, 2014, p.4; UNESCO n.d., p 2-3; Alobo, 2014, p.22; Okoro, 2016, p.2; Downer, 2000; Izah, 2013, P. 3; Nwanegbo, 2016, p. 53).

Economic Impacts:

Scholars and researchers have taken diverse perspectives of the economic impact of the Corona virus pandemic. Ozili (2020) argues that the economic down-turns in Nigeria was triggered by a combination of declining oil price and spill over from the COVID-19 outbreak which not only led to a fall in the demand for oil products, but also stopped economic activities from taking place when social distancing policies were enforced. Also in their study of the impacts of COVID-19 on food system and poverty in Nigeria, Andam, Edeh, Oboh, Pauw and Thurlow, (2020) found out that Nigeria's total GDP fell 23% during the lockdown. Agri-food system fell 11%, primarily due to restrictions on food services. Household income also fell by a quarter, leading a 95 points increase in the national poverty rate. This implies that the already bad poverty situation of the country worsened as a result of the pandemic. Just in 2019, Nigeria was declared the poverty capital of the world, surpassing India (Barikor and Nwodim, 2020) as she continued to grapple with economic difficulties over the years. Their study further indicated that given the scale of these economic losses, the recovery scenario indicated that even with a rapid easing of restrictions and global recovery, Nigeria was unlikely to escape deep economic recession. Of course, the prediction was made manifest when the Nigeria Bureau of Statistics (NBS) declared late November 2020 that Nigeria had slipped into recession.

Elsewhere, while estimating the economic costs of COVID-19 pandemic in Nigeria, Andam, Edeh, Oboh, Pauw and Thurlow, (2020) highlighted the reality that during the lockdown period, Nigeria suffered a 34.1% loss due to the COVID-19 pandemic, amounting to USD 16 billion with 2/3 of the losses coming from the services sector. The agriculture sector which serves as the primary means of livelihood for most Nigerians suffered 13.1% loss in output (USD 1.2 billion). Although primary agricultural activities were excluded from the direct restriction on economic activities imposed in the lockdown zones, the broader agri-food system was affected indirectly because of its linkage with the rest of the economy. There were obvious impacts on the socio-economic lives of the citizens as a major characteristic of the livelihood of the people is that a major segment of the population lives from hand to mouth. In other words, they live on their daily earnings. This implies that for them to feed in a day, they must have to go out to fend for themselves. It is that which they earn for the day that they use as upkeep for that day. So then, policies like lockdown and restriction of movements became problematic to the sustenance of this category of people. Examining the impact of the pandemic in the service sector of the economy, Mogaji (2020) in his study recognizes the impact of COVID-19 on transportation in Lagos State, Nigeria, highlighting its effects on transportation in emerging economies where lockdown restrictions on movements may be ineffective and presents practical implication for public and private sector policymakers as they navigate the precarious time and chart a new path for individuals and Nigeria. In all, there is an obvious reality of the negative effects of the pandemic on the socio economy of the country hampering the wellbeing of the citizenry.

Policy Response:

Soon after the corona virus (COVID-19) disease was first reported in an Italian citizen that arrived Nigeria on February 28, 2020 by the Nigeria Centre for Disease Control (NCDC), the National Emergency Operation Centres were immediately activated to Level 3 to trace and detect all his contacts and the Presidential Task Force (PTF) on COVID-19 was inaugurated 3 weeks later (Ebenso and Otu, 2020). Nigeria was among the first countries to recognize the risk and start planning ahead of the epidemic curve one week after China first reported the first case of COVID -19. So far, the country has recorded strides in in the fight against COVID-19 by drawing on successes and lessons learnt from controlling previous epidemics such as Ebola and Polio and ongoing epidemics such as Lasser Fever, followed by significant financial investments into preparedness and surveillance from the Federal Government and the newly formed Nigeria Private Sector Coalition Against COVID-19, (NTA, 2020). Evidences can be seen in the increase in the number of testing centre prior to the dilacerations of COVID-19 as a pandemic and today. The Federal Government of Nigeria, through the Presidential Taskforce on COVID-19, the Federal Ministry of Health and the Nigeria Centre for Disease Control have been working closely in collaboration with relevant ministries, departments, agencies, partners and other stakeholders to coordinate and review the national response strategies and implementation activities on daily basis in order to effectively contain the spread of COVID -19. Till date, several non-pharmaceutical measures have been employed to limit the importation of new

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cases and control local transmission. These measures include: staying at home, travel ban to and from high risk countries with community transmission of COVID-19, border controls; deployment of rapid response teams to all affected states; state level training and capacity building of all health personnel on infectious disease prevention and control; case management, intensified risk communication, community engagement, heightened surveillance, field epidemiological investigation, rapid identification of suspected cases, isolation, diagnosis, contact tracing, monitoring and follow-up of persons of interest. Furthermore, social and religious gatherings were banned temporarily, schools and businesses were closed, restriction of movements and partial lockdown were instituted in the Federal Capital Territory (FCT), Lagos and Ogun States.

In addition, the Federal Government expanded the social safety nets and welfare programmes in its efforts to reduce poverty and mitigate the impact of the unintentional partial lockdown on the livelihood of the poor and vulnerable households in affected states. Food rations, food vouchers, conditional cash transfers and other forms of palliatives targeted vulnerable and socially disadvantaged members of the affected countries (Tijanim, 2020).

Specifically, the Nigerian government undertook a number of fiscal measures to mitigate its effects on the citizenry as follows:

Economic Stimulus Measures (loans, moratorium, debt repayments) Monetary policy:
On March 16, 2020 the Central Bank of Nigeria announced new measures as follows:
- A one year extension of moratorium on principal payments for CBN intervention facilities;
- The reduction of the interest rate on intervention loans from 9 percent to 5 percent;
- Strengthening of the loan to deposit policy (i.e. stepping up enforcement directives to extend more credit to the private sector);
- Creation of NGN 50 billion target credit facility for affected households and small and medium enterprises;
- Granting regulatory forbearance to for banks to restructure terms of facilities in affected sectors;
- Improving FX supply to the CBN by directing oil companies and oil servicing companies to sell FX to the CBN. rather than the Nigerian National Petroleum Corporation;
- Additional NGN100 billion intervention fund in healthcare loans to pharmaceutical companies and health care practitioners intending to expand, build capacity;
- Identification of few key local pharmaceutical companies that will be granted funding facilities to support the procurement of raw materials and equipment required to boost local drug production;
- N 1 trillion loans to boost local manufacturing and production across the critical sectors;
- The CBN has adopted a unified exchange rate system for inter-Banks and parallel market rates to ease to ease pressure on FOREX earnings as oil prices continued to plummet;
- CBN adopted the official rate of N360 to a dollar for International Money Transfer Operators rate to banks;
- For on lending facilities, financial institutions have been directed to engage international development partners and negotiate concessions to ease the pains of the borrowers;
- Provision of credit assistance for the health industry to meet the potential increase in demand for health services and products by facilitating borrowing conditions for pharmaceutical companies, hospitals and practitioners.

Fiscal Policy:
- The crude oil price benchmark was also reduced from USD 57 to USD 30;
- The CBN pledged to pump N1.1 trillion (USD 3Billion) into critical sectors of the economy;
- Commencement of three month repayment moratorium for all TraderMoni, Market Moni and FarmerMoni loans;
- Similar moratorium to be given to all Federal Government funded loans issued by the Bank of Industry; Bank of Agriculture and the Nigeria Export-Import Bank.
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CUSTOMS MEASURES

Export of Mask: Some restrictions on exportation of masks were implemented;
Other measures:
- Authorities are considering a wide range of COVID-19 support measures including reduction of customs duty and customs audits but such measures are not officially announced;
- No changes in customs requirements as at March 31, 2020.
Payment facilities:
- Extension of filling due date for Value Added Tax (VAT) from the 21st day to the last working day of the month, following the month of deduction.
Other Measures and Sources:

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Fiscal Policy:
- The Federal Government revises planned spending in the 2020 budget with an increase of about N 023 trillion in expenditure and s 315decrease in revenue.

Suspension of New Electricity Tariffs:
- On April 1st, the Nigeria Electricity Regulatory Commission (NERC) suspended the payment of new electricity tariffs scheduled to commence on April 2, citing poor electricity supply, wide metering gap and the impact of the COVID -19 pandemic. The National Assembly recently postponed the effective date of the new tariff to the first quarter of 2021;
- On October 11, NERC suspended the Multi Year Tariff Order (MYTO) 2020 for the Electricity Distribution Licenses for 2 weeks.

NIS waiver for Visitor Affected by Travel Ban:
- On 16th April, Nigeria Immigration Service (NIS) announced the grant of payment waiver to visitors/ migrants affected by the travel ban and the closure of international airports. Affected persons are expected to reschedule their flights and travel within a week of the suspension of the restrictions
- Lagos state Government reverts annual land use charges to pre 2018 rates.

Source: https//: www.home.kpmg/govrnance

A number of monetary policies were introduced by the Federal Government to help boost the harsh effects of the pandemic on the economy. This was based on the reality that the effects of the lockdown affected the circulation of money as a result of the restriction of movements and the closure of business and industries. There was indeed serious economic lull and the bailout measures and relaxation of some monetary policies by the Federal Government through the Central Bank of Nigeria (CBN) was to play a major role to boost the country's economy thereby mitigating the harsh negative effects on the citizenry. The Federal Government went a step further to introduce cushioning policies in customs and excise in other to boost commercial activities which would help improve the livelihood of the citizenry. In other words, the economic burden placed on individuals and households required financial measures such as was put in place by the Central Bank of Nigeria (CBN) to mitigate such negative impacts. The fact remains, to what extent were these measures applied and how successful were they to mitigate the harsh effects on the citizenry.

DISCUSSION/ANALYSIS

From the foregoing, it is obvious that the Nigerian government responded to the challenges brought about by the novel coronavirus pandemic by activating the relevant ministries, agencies, parasails and departments to be alive to their responsibilities. Apart from medical response against the spread of the virus through contact tracing of infected and suspected infected persons, setting up of laboratories as well as isolation centres in various states of the Federation, there were also non pharmaceutical responses they were initiated to curb the spread of the virus. Such included the massive enlightenment, education and re-orientation of the citizenry on the novel virus through various mass media and communication channels. The Federal Ministry of Information and National Orientation, as well as the National Orientation Agency (NOA) played significant roles in this regard. It was evident that the measures taken to curb the spread of the virus infringed on the economic activities of the citizens, particularly those whose livelihood depended on their daily income. For several weeks there was the closure of inter and intra state boundaries. These had tremendous negative impact on the socio-economic wellbeing of the citizens. To a large extent, economic activities were at a lull. It was difficult to transport food produce from the northern part of the country to the south. Such food produce that were usually moved from the north to the south became scarce and expensive. A lot of people could not afford them. On the other hand, farmers in the north could not sell their produce to earn revenue from their farms. Worse still, due to the non-availability of storage system to preserve the farm produce, particularly the perishable one, there were so much losses incurred by the farmers due to their inability to timely dispose their produce as a result of the restrictions in interstate boundaries. This situation, in no small measure worsened the poverty rate in the country, with deeper economic crisis. To cushion the effects of the restrictions on the citizens, governments, both federal and states levels, individually rolled out food ''palliatives'' to address the challenges of hunger for the teeming masses who could not go out to fend for themselves as a result of the restrictions on movements occasioned by the lockdown. The government was also able to mobilize the private sector towards supporting the public initiatives by making diverse donations to help cushion the effects of the pandemic on the citizens. In response, the private sector under the auspices of Coalition against COVID-19 (CACOVID) made several donations in cash and in materials to assist the efforts of government at both the federal and states levels. However, there were several reports of dissatisfaction over the distribution of the palliatives and many had claimed that they were not reached. Apart from the impact

on the very poor citizens, there were also those who lost their jobs as a result of the pandemic. Hundreds of thousands were laid off their jobs as a result of the down turn occasioned by the corona virus. A lot of employees in the service sector such as transportation- both air and land, banking sector, amongst others were relieved of their jobs due to the negative economic impacts of the COVID-19 pandemic. There is no doubt that the scenarios worsened the already battered economy of the country, even as it sits comfortably as the poverty capital of the world. The government responded promptly through fiscal and non-fiscal measures to mitigate the effects of the pandemic on the citizenry. The major organs used as response mechanisms was the Central Blank of Nigeria (CBN) to roll out various measures and strategies aimed at cushioning the financial impact on businesses in Nigeria. Government announced various forms of bail out in a number of sectors ion the country, as well as moratorium on loans collected from the Federal Government by private business concerns. It announced a stimulus package and bailout for the health sector, the small and medium scale enterprises, the airline, the transport, the education, as well as the agriculture sectors. All these were in a bid to stimulate the already battered economy and help mitigate the impact of the pandemic on the citizens. However, the level of implementation of these policies is yet another issue that has not been effectively considered. Government is yet to roll out a mechanism of feedback to ascertain the level of implementation of its response and subsequent impact on the economy.
 Apart from the Federal Government, the various state governments adopted different policy response mechanisms in the fight against the pandemic in line similar to those of the Federal Government. These policies, though implemented in the states were greeted with mixed reactions from the citizens owing to poor, effective and efficient implementation.

SUMMARY/CONCLUSION

Despite the economic challenges and financial down turn faced by the government, there was significant and early response to the COVID-19 Pandemic in Nigeria. Although, the casualties record in Nigeria, as in other African countries were not as fatal as those in Europe, Asia and other parts of the world, it is obvious that there were inadequate infrastructure to contain the spread and treatment of the pandemic. For instance, as at the time when the virus was imported into the country, there were only about five testing centres for the virus in Nigeria. However, with the response by the Federal and State governments as well as other public spirited individuals and organizations, the number of testing centres rapidly increased. Furthermore, in the face of the pandemic and response mechanisms, the government is yet to initiate a feedback mechanism to ascertain the level of response and output of its policies. For instance, it was difficult to ascertain how and to what extent the distribution of food palliatives went to the targeted households. While it was reported that the Federal and state governments spent billions of naira to purchase palliatives that were distributed to poor households, it was observed that a lot of households complained that they did not receive such palliatives. Even those that received said what was received were short of what could be called palliatives. For instance, some families claimed they received three packets of indomie nodules. In some states some claimed they received a few cups of rice and others tubers of yams as palliatives. The reported cases of hoarding of these food items also showed lack of transparency, accountability and integrity in public policy implementation in Nigeria. There is also a high element of corruption in the process of public policy implementation. The conditional cash transfer by the Federal Government to the rural poor could not be tracked as cash payments were said to be made directly to the beneficiaries. This falls short of the process of accountability and transparency. We observed in this study a significant gap between policy initiation and policy implementation in the Nigerian public service delivery mechanism. This also affects policy outcomes of government activities. The same goes at the State level. Most State governments set up Committees made up of their political friends and associates. This developments cast doubt on the transparency of the relief and palliative distribution.

It is based on these findings that the study recommends as follows:
- Government should evolve a more accountable and transparent process in public policy implementation. This would enhance and ensure positive outcome of government intentions;
- There should be reward and punishment system for public officials that deliberately hinder government objectives by going against government directives in public policy implementation;
- A specialized agency should be charged with ensuring support and response to cushion the effects at the Federal level, rather than saddle the Ministry of Humanitarian Affairs with relief distribution. The National Emergency Management Agency (NEMA) is already saddled with the responsibility by law to do that, while the Ministry should have played the supervisory role;
- When such an agency is established it should have levels of operation such that it would operate at the levels of Federal, State and Local Government levels in order to ensure effectiveness and efficiency in service-delivery;

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The Degree of Study of Numerals by Scientists in the World

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ABSTRACT. Numerals are used in a variety of tasks, both in science and in everyday life. Using numbers, we record the results of calculations (twenty, forty years), determine the order between the elements of the plural (the first speaker, the millionth person to live), and express the results of the measurement of something (a mile and a half). In addition, numeric characters can be used instead of words, letters, for example, to encode text.

Chinese culture is recognized as one of the oldest written cultures. Yu. M. Lotman considers writing to be one of the forms of memory. In this sense, history can be interpreted as an "additional consequence of the emergence of writing". "While written culture is about the past, oral culture is about the future. That's why predictions, divination and predictions played a big role in it. "According to the scientist, "the world of verbal memory is full of symbols", the material is included in the list of objects and is included in the text of ceremonies, not in the text consisting of words. In the written culture, however, the situation is different. Such a culture "seeks to see the Text created by God or Nature, to read the message expressed in it." Numbers play an important role in this "reading of the world-text" by the Chinese. According to A. Karapetyants's Great Dictionary of the Chinese Language (中文大辞典 zhōngwén dà cídiǎn 1962-1968), there are 13,296 dictionary articles beginning with numbers.

KEYWORDS: China, numbers, linguistics, lexicology, grammatica, Chinese grammar, European grammars.

INTRODUCTION

The study of language in China began 2000 years ago and developed independently until the end of the nineteenth century, with little regard for the influence of Indian science. The peculiarity of classical Chinese linguistics is that it is based on a language that is written in a non-inflected, hieroglyphic script.[Linguistic encyclopedic dictionary. edited by V. N. Yartseva, - Moscow: "Soviet encyclopedia", 1990, P. 222.] Naturally, therefore, in the Chinese language tradition, the hieroglyph, its reading and meaning, was chosen as the main object, while the most advanced branches of linguistics were writing (graphics), lexicology, and phonetics. The first classical scholar of Chinese linguistics, Xu Shen (1st century AD), proposed a classification of hieroglyphs and separated their components. In the III-VI centuries dictionaries of homophones and rhymes were created and tones were described.

THE MAIN RESULTS AND FINDINGS

Due to the isolated nature of the Chinese language, the development of grammar was far behind. The grammatical study of the Chinese language began in the late 19th century, with the publication in 1898 of the grammar of Ma Jian Chun (马建忠 mǎjiànzhōng) "Mashi venton (马氏文通 mǎshìwéntōng)"[Kiryukhina L. V. Syntactic studies of the Chinese grammarian MA Jianzhong. Bulletin of the Buryat state University.-Tambov.Diploma, 2016. no. 6(60) in 3 h. CH.1.-P. 117-120.]. Previously, however, grammar research in China did not deviate from the European sphere of influence. Hence, Chinese grammar was originally based on examples of traditional European grammars. Naturally, such an approach focused on the general characteristics of languages, but did not pay enough attention to the specific features of the Chinese language, in particular, a separate method of expressing the semantics of quantity (numbers) - arithmetic (classifiers). Uzbek Chinese scholar A. Karimov writes about this topic in his monograph: "Accounting, as a rule, cannot come as independent parts of speech. In special cases, they may come as a determinant [Karimov A.A. Chinese-language calculus words: lexical-semantic, functional analysis.- T.: Science and technology, 2003.-P.108.]. Numbers, like arithmetic, can rarely be parts of speech. Quantitative combinations formed from the combination of the word number and arithmetic can easily come in different functions in speech.

Wan Li (王力 wánglì) is a scholar who has made an invaluable contribution to the study of Chinese grammar. Beginning in 1922, he began to seriously study the grammar of the Chinese language. A clear example of this is the dissertation "Grammar of Ancient

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Chinese Texts" (中国古文法 "zhōngguó gǔwén fǎ "), defended in 1926 at Tsing Hua University. In the 1930s, he wrote "The Experience of Thinking on the Grammar of the Chinese Language" (中国 文法学 初探 "zhōngguó wén fǎxué chūtàn"[王力. 中国 文法学初探.:山西人民出版社,2014.-204 页], 1936 (reprinted in 2014)), "New Ways to Learn Chinese Grammar" (中国语法学多 新办法"zhōngguó yǔfǎ xué duō xīn bànfǎ"[王力.中国语法学的新途径.-北京,1939 年.-120 页], 1939) revealed the peculiarities of language grammar. In the 1940s, his fundamental works were "Grammar of Modern Chinese" (中国现代语法 "zhōngguó xiàndài yǔfǎ"[王力. 中国现代语法.北京.商务印书管.1985.423 页], 1943-1944 reprinted in 1985）), "Theory of Chinese Grammar" (中国语法理论"zhōngguó yǔfǎ lǐlùn"[王力.中国语法理论.-北京.:中华书局,2015.-311 页], 1944-1945 (revised in 2015). published)), "Fundamentals of Chinese Grammar" (中国语法纲要"zhōngguó yǔfǎ gāngyào"[王力.中国语法纲要.-山海 .: 上海教育出版社,1982.181 页], 1946 (reprinted in 1982)) saw the world.

Wan Li 's scientific treatises on creativity and Chinese grammar were published by A.A. Dragunov, A.L. Studied by Russian Chinese scholars such as Semenas, V.M Solntsev[Dragunov, A. A., Preface//Wan Liao And Fundamentals of Chinese grammar. - Moscow: Iz-vo foreign literature, 1954. -262 p.;Semenas A. L. Linguistic research in China//Questions of linguistics. - Moscow, 1988, No. 1, - P. 132-14.;

Solntsev V. M. the Problem of parts of speech in Chinese jazykem the works of linguists China//Questions of linguistics, Moscow, 1955, No. 5, Pp. 105-116.].

Wan Li plays a central role in the grammatical system, syntax. While studying Chinese word groups, he emphasizes number word grouping. According to him, "There are specific difficulties in learning numbers in Chinese. Because the system of quantitative numbers in Chinese is completely different [王力. 中国现代语法.北京.:商务印书管.1985-.224 页]. Wan Li was of the opinion that the grammatical problems of speech are inherent in him, given the difficulty of the Chinese language according to the level of learning.

Modern Chinese grammar scholars Zhang Chi Cheng and Zhang Yan Shen studied the field of numerology related to Chinese numbers. In his work, Zhang Chi Chen studied the history of the development of numerology in China more. In particular, he dealt with the methodology of the field of numerology in Ancient Chinese sources, revealing aspects of the relation of classificationism to numerology. Zhang Yan Shen, on the other hand, studied the semantics of numbers, the proportionality of basic numerological numbers and symbols. Their work has made a significant contribution to the field of numerology [张其成.象数易学. 广西科学技 术出版社., 2009 年.356 页; 张延生"象数易学与逻辑"北京,中央编译出版社 2015 年].

A.A. Dragunov, a representative of the Russian School of Chinese Studies, agreed with Wan Li's views on this phrase, focusing on the study of more ordinal numbers. numerological numbers have at least two ontological values comparable to the difference between quantitative and ordinal numbers ". A distinctive feature of Chinese numbers is the lack of fundamental differences in the formation of their quantitative and orderly forms (for example, in Russian odin pervy, dva and vtoroy). As a result of the advent of the prefix " 第 dì" along with direct numbers, the formation of ordinal numbers is a relatively new phenomenon[Dragunov A. A. Research on the grammar of modern Chinese. M., 1952. - P. 195.].

As mentioned above, the occurrence of prefixes (prefixes) with numbers in Chinese is a unique phenomenon. AA Khamatova also commented on this: in Chinese, in addition to the prefix 第 dì, there is the prefix 老 lǎo, which is often used to express the relationship of "kinship". For example, 老二 lǎoèr is the secoand child, 老三 lǎosān is the third child. However, this prefix is not used with multiple morpheme numbers, for example 老十一妹 lǎo shaosaníyī mèi is not called the eleventh sister.[Khamatova A. A. word Formation of the modern Chinese language.-Moscow:"Ant", 2003. - C. 184.].

Russian Chinese scholars V.M.Solntseva and N.V.Solntseva were also directly involved in grammar, in their "Teoriticheskaya grammatika sovremennogo kitayskogo yazyka. Problems of morphology. In the book "Course lecture" in the section of word groups gave detailed information about the number of words. In particular, the general classification of numbers in Chinese, their construction, grammatical features are clearly explained [Solntsev V. M., Solntseva N. V. Theoretical grammar of modern Chinese. Problems of morphology.Course of lectures.-Moscow:Military Institute, 1978, P. 152.

Doctor of Philology, Professor A.I Kobzev in his doctoral dissertation "Methodology of Chinese Classical Philosophy (Numerology and Protology)" and in the monograph "Teaching Symbols and Numbers in Chinese Classical Philosophy" study the field of numerology in Chinese. showed that it is important. He has also covered more than a dozen of his articles on the subject. In his works, he skillfully expressed the classical period, that is, the stages of creation and development of the field of numerology in Ancient China, the balance of numbers and symbols in Chinese classical philosophy.[Kobzev A. I. Methodology of Chinese classical philosophy (numerology and protology)"). - Aftoref. dis.... doctor of Philology. Moscow, if RAS, 1989, P. 95.; Kobzev A.I. The Doctrine of symbols and numbers in Chinese classical philosophy, Moscow: Nauka, 1994, P. 32.].

In recent years, the science of linguistics has begun to study the issues of language and culture. V.V Vorobyov writes that "today linguistics studies a set of cultural values selected in a certain way, living communicative processes in speech creation and

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perception, linguistic personality experience and national mentality, can be noted as a new philological science that systematically provides a linguistic picture of the world landscape, ensuring the fulfillment of educational, pedagogical and intellectual tasks of education. Thus, linguoculture is a complex science that reflects the interaction and interaction of culture and language, and this process as a whole structure of linguistic and non-linguistic (cultural) units [Vorobyov V. V. on the status of linguoculturology/ /Congress MAPRYAL. Russian language, literature and culture at the turn of the century. T. 2. - Bratislava, 1999. - P. 125-126.].

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Tsui Hong En is a researcher who has made a comparative-typological analysis of the semantics of numbers in Russian and Chinese. In his work, he tried to explain the semantics of numbers in two languages based on the grammatical rules of modern Chinese and Russian [Tsui Hong En. Semantics of number names in the Russian and Chinese languages: linguoculturological aspect. - Aftoref. dis.... Cand. Philol. nauk. - Krasnodar, 2003. - 23C.].

Based on the general description of the Russian and Chinese languages, the researcher in the research work made a comparative study of the semantic field of numbers. The study includes the formation of Chinese number concepts and arithmetic systems, Chinese arithmetic, the separation of numbers in Russian and Chinese as separate word groups, the semantic development of the concept of "number" in Russian and Chinese culture, the use of numbers in bilingual literature and phraseological units focused on issues. Introducing the research, Tsui Hong En wrote: "Thus, we have come to the conclusion that numbers play a greater role in Chinese culture than in Russian."

Wang Min Tsi approached the comparative study of languages from the point of view of the Chinese in terms of the native language of the Chinese and the landscape of the Russian language in the study of number vocabulary. The research work examines and compares the linguistic means of expressing the category of quantity in Russian. In addition, the difficulties encountered in identifying similarities and differences in the category of numbers of two languages, as well as translating from one language to another containing direct or indirect quantitative data examined. Achieving this goal solved the following tasks: 1. Revealed the interdependence of the linguistic elements of quantity expression in Russian and Chinese, their specificity and typological similarity; 2. Identified and described the national and cultural specifics of linguistic means of expressing the category of quantity in Russian and Chinese. 3. Determined how to translate special words (classifiers) of Chinese into Russian. compiled Chinese-Russian and Russian-Chinese bilingual phrases of special units (classifiers, counting words)[Wang Ming Tsi.The expression of number in Russian language: From the position of a native Chinese speaker. Aftoref.dis....kand. filol.nauk. - Penza, 2004. -24 p.]

Representatives of the Uzbek School of Chinese Studies are also studying the issues of numerals in Chinese. Regarding the combination of numbers and arithmetic, AA Karimov said: "Language, in the process of its historical development, uses various means and methods to express any grammatical meaning. Our diachronic study of arithmetic in Wenyang (ancient Chinese) is necessary to better understand the nature and specificity of modern Chinese arithmetic. "[Karimov A.A. Chinese-language calculus words: lexical-semantic, functional analysis.- T.: Science and technology, 2003.- P.26.]

The scientist takes a unique approach to the subject and skillfully interprets the fact that numbers in ancient Chinese are directly related to other word groups, especially arithmetic. Model 1. Number+noun (for example,二人 èrrén two people); Model 2 ."noun + number" (for example, 牛一 niúyī one cow, 羊一 yángyī one sheep); Model 3 ."noun + number + account" (for example, 马三匹 mǎsān pǐ three horses); Model 4. "number + account + zhī + noun" (for example, 三寸之舌 sāncùn zhī shé sāncùnzhīshé is a master of words. three sun (10cm)); Model 5. "number + account + horse" (for example, 一尺布 yìchǐbù one (meter) cloth.).

The movement also refers to the use of arithmetic in ancient Chinese. They were divided into three models: model 1. "number + verb" (for example, 三鼓 sāngǔ to hit the drum three times); Model 2 ."verb + zhě + number" (for example, 坏者三 huài zhě sān has many evils. Literally: evils are three times more); Model 3 ."verb + number + arithmetic" (e.g. 读三遍 dú sānbiàn to read three times).

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In her research work "Lexical-semantic and structural analysis of diplomatic terms in modern Chinese" S.A. Nosirova commented on the method of abbreviation with the participation of numbers in the construction of diplomatic terms in modern Chinese: "Chinese abbreviations are part of the Chinese lexicon. Among them are abbreviations related to numbers.For example, in one of the models of abbreviations in the style of simple abbreviations, 简称 Jian cheng is used mainly for abbreviations formed by numbers. For example: 一（二，三）秘 Yi (er/ san) mi. Full view: 一（二，三）等秘书 ī（èr， sān）děng mìshū First (second, third) level secretary: number + AV = number A.Or: 一中一台 yizhong yitai Zhōngguó , and a new term was formed as a result of the combination of the first syllables of the words 台湾 taiwan.[Nosirova S. A. Now China tilida diplomatic atamallarning lexik-semantics and structural analysis. T., F. F. n. dissert., 2007. –P.97].

The Chinese national consciousness factor is of primary importance in the creation of many new abbreviations. The widespread use of the cognitive method in the formation of new terms in Chinese can also be seen using the following examples. For example, if we take the example of 两个中国 liangge zhongguo, the literal translation of the term "two Chinese" would certainly cause a lot of misunderstanding, where the translator is certainly cognitive as a factor in Chinese psychology, a factor of national consciousness. should be approached from a linguistic point of view, only then will it be possible to give a correct translation of the term, including "PRC with two systems". Or a few other examples: 三大作风 sanda zuofeng three different "style" （理论和实践相结合的作风，和人民群众紧密地联系在一起的作风，批评和自我批评的作风 lilun he shijian xiangjiehede zuofeng，he renmin jinmide lianxi zaiyiqide zuofeng , piping he ziwo pipingde zuofeng) a combination of theory and practice, public association and criticism, methods of self-criticism); 两个文明 lianggewenming "two cultures" (shèhuìzhǔyì wùzhìwénmíng ， " (社会主义物质文明，社会主义精神文明 shehui zhuyi wuzhi wenming , shehui zhuyi jingshen wenming), 三个面向 sange mianxiang "to face three things" （ 面向现代化，面向世界，面向未来 mianxiang xiandaihua, mianxiang shijie, mianxiang weilai modernization).

However, it is safe to say that in the lexical layer of modern Chinese, the number of new terms formed by the abbreviation method, including those related to numbers, is increasing.

Structural and functional analysis of reduplicative units in various word categories in modern Chinese, especially in the number word group in revealing the features of reduplicative word models S. Hashimova's research is unique. Analyzing the work of the scientist, we saw 3 reduplicative models of number and arithmetic: "AA", " yī 一 AA", "yī 一 A yī 一 A". The "AA" form of counting words is usually one of the most common repetitive patterns, and a word with this reduplicative form means "everyone". The appearance of "ī 一 AA" differs from the above model by the addition of the number one , which means many. The yī 一 A yī 一 A model is a completely repetitive form of the number and arithmetic phrase[Khashimova S.The A.Reduplication in the current Chinese language. The elephant.science.Nomz...the DIS.Authorship.- ,2009.-P .24.].

There is no section or chapter on number reduplication in the study. Focusing on the grammatical functions of repeated quantitative-numerical combinations, the formation of quantitative combinations using the word and number together is shown in detail. It is clearly stated that they can be repeated individually within the compound.[Hoshimova S.The A.Reduplication in the current Chinese language.- : "Navruz" Publishing House, 2017.- P.80.] For example:

1. A word in a quantitative compound can be repeated separately. Usually, the number "one" is often repeated, meaning "everyone" and serves as a case in point: 一一握手 yīyīwòshǒu shakes hands one by one.

2. In a quantitative combination, both a number and an arithmetic can be repeated at the same time. If they serve as a determinant, they are of course 的 de added: : 一盘一盘的水果 yī pán yī pán de shuǐguǒ partially wet fruits.

3. In a repeated quantitative combination, the number "one" may be dropped, but not after the quantitative combination: 这时候件件往事又桶上心头 zhè shí hòu jiàn jiàn wǎng shìyòu tǒng shàng xīn tóu.

4. Double quantitative compounds can occur as a case function. In doing so, they mean "in sequence": 两个两个地 liǎng gèliǎng gè dì liǎnggè liǎnggè de .

5. If the number "one" is omitted in the repeated quantitative combination, then de de is not set: 天气一天天暖和起来了 Tiānqì yī tiāntiān nuǎnhé qǐlái le . The weather began to heat up day by day.

In addition, according to the scientist, there is the formation of reduplicative models in the section of verbs using numbers. For example: 看一看 kànyīkàn to see, a word meaning to see. This case is a model of reduplicative verbs, and the number is an integral part of it. As a rule, numbers other than one number ī yī cannot be used. Other numbers may also be hesitant independently, but they retain their pure meaning. For example: 三三个 sān sāngè . In this case, the word does not have a reduplicative form, only a pair of words, which have a repetitive form.

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Hoshimova S.A. in the research work it can be understood that on the basis of the table given the mutual percentage of complete and incomplete models of Chinese language group reduplication and analyzed the occurrence of equal and incomplete reduplicative models in horse, quality, number word groups.

While observing the research work of Uzbek Chinese scholars, in the monograph "Formation and development of the system of Chinese linguistic terms" by Mustafaeva S., we came across numerical aspects in the construction and structural features of Chinese linguistic terms. The scholar believes that the second major method after the compositional method in Chinese word formation is the affixation method. According to him, the prefix 第 dì from Chinese prefixes, 反 fǎn "anti" -, "counter" - is used in the construction of linguistic terms: prefix + yī "one" 第一人称（身）dìyīrénchēng （shēn） "person"; 第三格 Dìsān gé dìsāngé "third agreement" ›dì comes as a prefix + sān" three "+ gé" agreement "[Mustafayev S. T. China tili milishnikov of terminology, formatting and development: Monograph-T.: "Vostok", 2016. - P. 86.].

According to Mustafaeva, although the affixation method is one of the leading forms of Chinese word formation, it is not as productive in the formation of terms in the field of linguistics.

Numerical issues are partially covered in the textbook "Introduction to Chinese Philology" and practical issues are covered in the textbook "Chinese". In it we have given a general description of numbers, and in the classification of numbers we have tried to give information such as incremental numbers, fractional numbers, percentage numbers, approximate numbers, the construction of numbers, and the grammatical properties of numbers. The semantic properties of numbers have not been studied. However, since the collected materials are important in illuminating the number word series in Chinese, we have been using them in our research work. [Mavlyanova U.X.Nazirova Sh.M. Introduction to Chinese Philology.-T .: TashDShI, 2018.-170 p.;Mavlyanova U.X.Chinese.-T.:TashDShI, 2017.-304 p.]

CONCLUSION

With this in mind, one of the most conservative parts of the language system, the numerical phrase, was chosen as the source of the study. This is due to the fact that for the first time in the field of numerology in Chinese monograph analysis of the proportions of numbers and symbols, revealing the national and cultural features of numbers in Chinese discourse, analyzing the linguocultural features of numbers in Chinese.

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Biological Development of Codling Moth and Biological Efficiency of Pyretroid Preparations to Control It

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ABSTRACT: Apples are widely used by the population as a fresh and processed product at any time of the year. The relevance of the experiment is the protection of orchards from apple pests and the cultivation of high-quality products. Over the years of experiments, the main types of pests that are found in gardens and cause the greatest damage, as well as their morphological characteristics, have been studied. Laspeyresia (Carpocapsa) pomonella L. is recognized as the most harmful apple tree in our region.

KEYWORDS: apple worm development, mushroom stage, butterflies, morphological signs, degree of damage, pheromone traps, air temperature, parathyroid drugs, biological effectiveness;

INTRODUCTION

There are all the opportunities to increase the number of orchards in Uzbekistan and Karakalpakstan, especially in the natural climate, which is conducive to the cultivation of fruit trees. However, as a result of the fact that many fruit trees grow in the same place for many years, pests multiply and cause great damage to trees from roots to fruits. In recent years, a number of pests and diseases have caused serious damage to gardens. The damage caused by codling moths is especially great on the apple trees that make up the bulk of our orchards.

In their scientific works I.Aytimov and T.E.Toreniyazov [1] made special observations on the study of pest species that appear in orchards in the northern regions of the country. As a result, experiments conducted in 2014-2015 studied the main pest species that occur in orchards and cause the most damage and their morphological characteristics. Laspeyresia (Carpocapsa) pomonella L. has been identified as the most harmful codling moth in our region. Worms of the pest can penetrate the fruit and infect the seeds.

In the experiments of Sh.T Khojayev, E.Kholmuradov [4] and Sh.T Khojayev [5], the effectiveness of the method or tool used against codling moths is determined by the results obtained at the end of the season. But the biological effect on each joint of the codling moth could not be determined. As a result of the study by a creative team of scientists suggested the following method. Before each treatment of the codling moth, an insecticide-soaked belt is tied to 10 of the trees in the experimental and control (unprocessed) variants. On the 10th and 20th days after the procedure, the belts are examined to determine the difference in results

According to the information of T.Topvoldiyev, M.Rakhimov [2], if systematic control measures are not taken against codling moths, the amount of damaged fruits can reach to the following levels: 25-30% in early apple varieties, 40-50% in mid-summer varieties, up to 70% and higher in late varieties.

The purpose of the experiment: to study the bio ecology of the development of the codling moth pest in the apple tree, to study the time of overwintering, egg lying and the developmental characteristics of the larvae that hatches from eggs;

Objectives of the experiment: to determine the damage caused by codling moths to apple fruit and the biological effectiveness of parathyroid preparations against them.

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Actuality of experience and importance in production. Apples are widely used by the population as a fresh and processed product in all seasons. The actuality of the experiment is to protect orchards from apple pests and to produce high quality products.

Object and methods of research. The experiment was conducted in the apple orchard of Namuna MMTP, Amudarya district of the Republic of Karakalpakstan. The objects of research are apple orchard, codling moth pest, pheromone traps and parathyroid preparations.

In the experiment, the installation of pheromone traps and testing of parathyroid preparations was determined by the method of Sh.T.Khojaev [3].

Results of the experiment. Codling moth pheromone traps were used for proper worm control and diagnosis. At the same time, when the average spring 10-day temperature exceeded 10 ° C, one pheromone trap was installed on March 23 for one hectare of apple orchard (Picture 1).

But the butterfly was not caught during the 18-day follow-up. Then the glue and capsules in the handles were replaced. Three days later, on April 11, when the average daily temperature rose to 12.8 ° C, 2-3 butterflies were found to be caught. The average number of butterflies caught in a 1-week follow-up was 18-20. Female butterflies begin to lay eggs on the leaves and buds, usually on the upper part of apple, quince and pear branches, when the air temperature is 16 ° C and above. Young worms hatching from eggs have been found to damage emerging fruits, and 70% of worms that appear later (large fruits) damage one fruit. The affected apple's worm-infested area often rots, and the worm's hole in the apple becomes hollow (Picture 2).

Picture 1. Codling moth which was caught by the pheromone handle.

Picture 2. Apple damaged by codling moth.

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In order to determine the biological development of the codling moth, the apple branch on which the pest butterflies lay their eggs was covered with a small entomological garden and its further development was studied (Pic. 3).

The development of the egg lasts 5-15 days, depending on the temperature, and lasts 18-40 days (on average 24 days) after moving to the fruit: during this period the worm passes 5 ages. The fruit worm turned into a pupa after 2-8 days (on average 4 days); the pupa stage lasted 8 days in July-August. This means that one joint of the pest completed its development in an average of 38 days by July.

Picture 3. Use of entomological small garden to determine the biological development of the codling moth.

Due to the large number of butterflies in the handles, the apple orchards were treated with pyrethroid drugs. In this, 40% em.k. Bi-58 (new) preparation was used in 3 different consumption rates, 1.4, 1.6 and 1.8 liters per hectare, 10% em.k. Danitol was applied at a rate of 1.5 liters per hectare.

The experiment was performed in 5 variants, 4 repetitions. 10 apple trees were selected in each variant.

In our experiment, the number of pests was controlled at 3, 7 and 14 days before and after application of the preparation.

The biological efficiency of the variant Bi-58 was 76.9 and 79.2% when applied at the rate of 1.4 and 1.6 liters per hectare (Table 1).

Table 1. Biological efficacy of pyrethroid preparations to control codling moth

Variants	Using preparation l/ga	Average number of worms on 10 trees, piece				Biological effectiveness, in days, (%)		
		Before spraying the preparation	After spraying the preparation, in days			3	7	14
			3	7	14			
Control (unprocessed)	___	48,5	51,6	51,52	54,44	__	__	__
Donitol, 10% em.k. (sample)	1,5	51,0	14,15	13,0	11,20	73,9	76,0	80,4
Bi-58, 40% em.k.	1,4	51,3	14,42	13,42	13,26	73,6	75,4	76,9
Bi-58, 40% em.k.	1,6	51,4	14,15	13,20	12,0	74,1	75,8	79,2
Bi-58, 40% em.k.	1,8	54,6	9,6	7,6	5,2	**83,5**	**86,9**	**91,5**

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Including 10% em.k. when Donitol was applied at the rate of 1.5 liters per hectare, the results for 3, 7 and 14 days revealed 73.9, 76.0 and 80.4% biological efficacy, respectively. Bi-58 showed higher biological efficacy than Donitol when applied at the rate of 1.8 liters, and achieved 91.5% biological effectiveness after 14 days.

CONCLUSION

1. Spring butterflies of codling moth fly at a temperature of not less than 16 ° C.

2. The development of one joint of the pest was 38 days in June and July.

3. The average number of pests on 10 trees in orchards is 48.5-54.6 pieces.

4. In the experiment, when 40% of the em.k. Bi-58 (new) preparation was applied at a rate of 1.4 and 1.6 liters per hectare, after 14 days the biological efficiency was achieved 76.9 and 79.2%.

5. When using 40% em.k. Bi-58 (new) at a rate of 1.8 liters per hectare, the highest efficiency was found in our experiment, which after 14 days was 91.5%.

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Acute Kidney Injury After Sigmoid Vaginoplasty Procedure In Mullerian Duct Anomalies: A Case Report

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ABSTRACT: Background: Development of female genital tract is a complex process and dependent upon a series of events involving cellular differentiation, migration, fusion, and canalization. Mullerian Duct Anomalies (MDA) are uncommon congenital anomalies, but can vary widely and treatable with surgical procedure. Classification system that have been used are classification from American Society for Reproductive Medicine (ASRM) and European Society of Human Reproduction and Embriology (ESHRE) and European Society for Gynaecological Endoscopy (ESGE). Surgical procedure in MDA patient had a high successful rate, but post-operative complication can arise in form of the need for further surgical requirement and acute kidney injury.

Case report: A 20 year old girl admitted to obstetric gynecologic clinic with complaints of abdominal pain, amenorrhea, and redness voiding. She experienced abdominal pain since 6 years ago. Previously, patient had history of vaginal drainage procedure when she was 14 years old but she did not felt improvement in complaint and symptom. Cystoscopy and radiology imaging showed vaginal agenesis and renal dekstra agenesis, subsequently patient was planned for a sigmoid vaginoplasty procedure. Identification and exploration during surgery revealed vaginal agenesis, renal dekstra agenesis, hematometra from hemiuterus dekstra, hemiuterus sinistra with asesorius or hipoplasia uterine and hematosalping dekstra. In 5 days post operative, patient suffer anuria and acute kidney injury complication. Acute kidney injury after major surgery involving gastrointestinal was common because of surgical stress response, and agenesis renal condition aggravates this complication.

KEYWORDS: Mullerian Duct Anomalies, Anuria, Acute kidney injury, Sigmoid Vaginoplasty

BACKGROUND

Congenital malformations of female genital tract defined as embryological maldevelopment of the Mullerian or paramesonephric ducts. Interruption of mullerian duct can result in formation of Mullerian Duct Anomalies (MDA), and anomalies can range from vaginal agenesis, uterine agenesis, and renal agenesis[1]. In a general population-based study, prevalence of Müllerian duct anomalies was 9.8% and more frequent in nulliparous women [2]. MDA are uncommon congenital anomalies, but can vary widely and treatable with surgical procedure [3]. In a patient with congenital anomalies of Mullerian duct, vaginal reconstruction may be indicated, and the procedure are involving intestinal transplant methods to create a functioning neovagina. Sigmoid vaginoplasty were proposed more than 100 years ago, but postoperative acute kidney injury (AKI) is a common complication following gastrointestinal surgery, and a renal agenesis condition can worsened the complication and will be discussed in this case report of a 20-year-old female who presented with abdominal pain and amenorrhea.

CASE REPORT

A 20 year old girl admitted to obstetric gynecologic clinic with complaints of abdominal pain, amenorrhea, and redness voiding. She experienced abdominal pain since 6 years ago. She felt the pain every once a month in lower abdominal area, and she never had menstrual cycle before. She also said that once on a month she had a redness voiding. Previously, patient had history of vaginal drainage procedure when she was 14 years old but she did not felt improvement in complaint and symptom. Physical examination revealed lower abdominal tenderness. There was no pathological finding on laboratory examinations. Gynecologic examination reveal 2 cm vaginal sondage, without anomalies of external genitalia or hymen. Abdominal ultrasound examination showed uterus with size 6,5x4,1x3,39 cm and mass seems hematosalphing in both adnexa (figure 1). Patient had cystoscopy

procedure and radiology imaging confirmed vaginal agenesis and radiology test showed delayed function of right kidney with normal left kidney function.

After diagnostic procedure, patient than planned for sigmoid vaginoplasty procedure. Identification and exploration during surgery revealed vaginal agenesis, renal dekstra agenesis, hematometra from hemiuterus dekstra, hemiuterus sinistra with asesorius or hipoplasia uterine, unilateral cervical aplasia and hematosalping dekstra. In five days post operative, patient suffer anuria and acute kidney injury complication. There is no urine production and patient had laboratory test which showed elevated in creatinin serum until five times fold normal limit. Patient had abdominal ultrasound evaluation and showed inflammation in left kidney (figure 2). After initial therapy and fluid rehidration, patient regained kidney normal function and discharge after twelve days post surgical procedure.

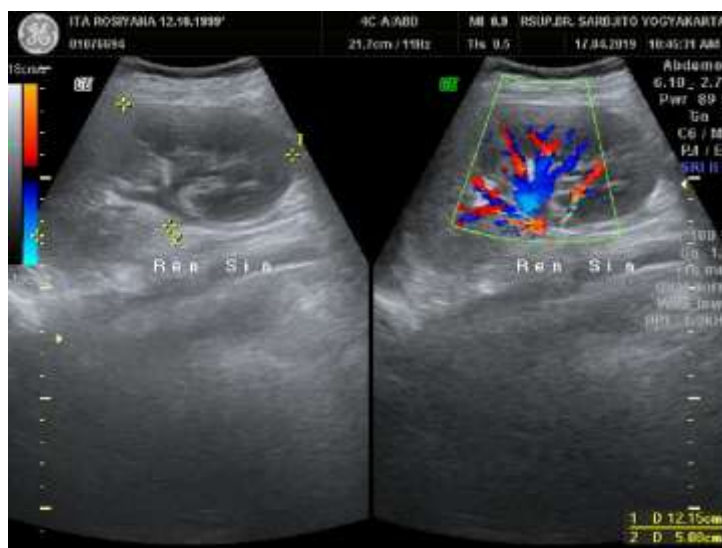
Figure 1. Ultrasound finding in initial evaluation

Figure 2. Evaluation Ultrasound of Left Kidney After Sigmoid Vaginoplasty Procedure

DISCUSSION

The female reproductive tract develops from a pair of Mullerian ducts that form fallopian tube, uterus, cervix and the upper two-thirds of the vagina [1]. Congenital malformations arise if there is agenesis of one or two ducts, or absence of fusion or reabsorption of the septum between the ducts. Vaginal anomalies are often associated with uterine anomalies [4]. Due to their wide variability, classification of MDA are useful for their diagnosis and management [3].

The most common classification system that developed and had been used were by American Society for Reproductive Medicine (ASRM) and European Society of Human Reproduction and Embriology (ESHRE) and European Society for Gynaecological Endoscopy (ESGE). ASRM divides uterine malformations into seven main groups [5]. This system does not include vaginal

anomalies and certain combined anomalies. Two European societies, ESHRE and ESGE have introduced a classification based on the anatomy of the female genital tract and malformations of the uterine cervix and vagina [6].

From surgical finding in this patient, patient had hemiuterus dekstra with hipoplasia uterine sinistra, unilateral cervical aplasia, and partial vaginal aplasia. In ESHRE/ESGE classification this is include in Class U4a, which incorporates all cases of unilateral formed uterus. Hemiuterus defined as the unilateral uterine development, and the contralateral part incompletely formed [6]. A unilateral cervical aplasia classified into subclass C3 which included in unilateral cervical formation and partial vaginal aplasia classified into subclass V4 for cases of complete or partial vaginal aplasia.

Treatment for patient was a surgical sigmoid vaginoplasty and resection of hematometra from hemiuterus dekstra. Main purposes of treatment are to relieve symptoms and create a neovagina to provide further sexual and reproductive function. In this procedure, sigmoid colon have been used to create a neovagina because it is anatomically close to the perineum, sufficiently long and its vascular mobility allows it to be brought into the perineum [7]. Surgical procedure are completed, but after five days of surgery, patient had acute kidney injury. Acute kidney injury after major surgery involving gastrointestinal was common because of surgical stress response, and agenesis renal condition in this patient aggravates this complication [8].

In the present cohort, AKI associated with a significantly increased risk of morbidity and mortality. One study confirmed that postoperative AKI following gastrointestinal surgery is common, affecting around one in seven patients, and is associated with an increased risk of major complications and death [8]. Although a causative relationship between AKI and poor clinical outcomes cannot be claimed, numerous potential mechanisms exist. AKI is independently associated with cytokine release, systemic inflammation and organ dysfunction [8]. From STARSurg study, hypertension, proteinuria, or renal failure was present in approximately two-third of patients with renal agenesis/dysplasia. Those with HT and proteinuria had a higher risk of progression to renal insufficiency [8].

In a study included women who had renal anomalies, unilateral renal agenesis being most frequent defect. The incidence of unilateral renal agenesis has been reported as 1 per 500–1000 in autopsies [9]. In patient with single kidney, an adaptive phenomenon occurs at the solitary kidney as a result of the diminished number of nephrons. Increases in size and functional capacity of the kidney have been shown in animal and human studies [10]. An increased renal blood flow and glomerular pressures cause a mechanical stimulation for renal growth. A decrease in 50% of human renal mass causes an increase in glomerular filtration rate [10], and Wang et al showed that patients with congenital solitary kidney had a higher risk of renal insufficiency [11].

A large fluid overload upon the single kidney after initial hydration therapy for dehydration might have caused a rapid cone-shaped expansion of the previously collapsed proximal ureter due to dehydration [12]. Initially this seems a worrying condition, but after several days, patient had regained it normal kidney function.

To summarize, in this patient with Mullerian duct anomalies was a condition which need a surgical intervention to provide further function in sexual and reproductive. Acute kidney injury is a common complication due to stress response from mayor abdominal surgery and a renal agenesis can aggravates this condition.

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Legal Basis of Rehabilitation in Criminal Proceedings

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ABSTRACT: This article discusses the legal basis of rehabilitation in criminal proceedings in the Republic of Uzbekistan. The most constructive theories of the institution under discussion are discussed, their advantages and disadvantages are emphasized. The article also analyzes the volume of rehabilitation in the Criminal Procedure Code of the Republic of Uzbekistan.

KEYWORDS: Rehabilitation; compensation; cases of rehabilitation

INTRODUCTION

The development of a market economy and the associated democratization of society in our country, as well as the transition to civil society, in turn, require further improvement of the system of criminal procedure legislation. Article 13 of the Constitution of the Republic of Uzbekistan guarantees that democracy in the Republic of Uzbekistan is based on universal principles, according to which a person, his life, freedom, honor, dignity and other inalienable rights are the highest value. This constitutional norm itself testifies to the relevance of protecting the rights of citizens.

It should be noted that the pace of development of the judicial system in the Republic of Uzbekistan has increased significantly since 2017. For example, in the first 10 months of 2017, the court acquitted 191 people, and over the past five years - only 7 people. In addition, this year the preliminary investigation authorities terminated 3,511 criminal cases on rehabilitation and other grounds [1, p 345].

It is enough to show as an example that in the first nine months of 2019 alone, 576 people were rehabilitated and rehabilitated in the Republic of Uzbekistan to understand the effectiveness of democratic reforms in the judicial sphere.

In the analysis of the topic of rehabilitation in the legislation of the Republic of Uzbekistan, it is best to start with the coverage of the concept of rehabilitation. There are several views on the origin of the concept of rehabilitation. One of them was N.I. Mirolyubov, who, in his opinion, was first used by the medieval French legist Blenianus to refer to the oldest institution of pardon with the restoration of all the former rights of the convict [2, p 17].

Initially, the law defined punishment as punishment for an offense committed by the offender. The punishment was used to permanently isolate the offender from society. Over time, views of punishment as a way to rehabilitate the offender began to emerge and improve. Accordingly, the deprivation of any rights remained temporary. The convicted person has the opportunity to restore his rights and social status over time under certain conditions. This restoration was called rehabilitation. Rehabilitation, which emerged as a method of amnesty, became an independent legal institution.

THE MAIN FINDINGS AND RESULTS

Issues related to compensation for damage caused to persons illegally prosecuted have long been considered. At Pericles' time, Athenian law (445-430 BC) provided for: the prosecution is entrusted with the conduct of the public prosecution in the course of the proceedings. He was deprived of the right to institute criminal proceedings in the future if he won less than one-fifth of the judges' votes in favor of the case, paid a fine of 1,000 drachmas, and failed charges were repeated three times. The liability of a prosecutor who fails to collect one-fifth of the votes of judges in a private court is limited to a fine in favor of the accused in the amount of one-sixth of the amount of the claim (by drachma). The acquittal of each individual, in turn, could serve as an excuse to initiate litigation against an intentionally unjust accusation [3, p 91].

Also, as a result of considering the origin of the concept of rehabilitation, it can be concluded that rehabilitation involves the process of restoring a person's violated rights and compensating for the damage caused to him.

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In this regard, if we talk about the institution of rehabilitation in the criminal process, it is advisable, before discussing the institution "Rehabilitation in the criminal process", to highlight the importance of its improvement. It is important to study the institute of "rehabilitation in criminal proceedings"and to create a new methodological framework for improving this institution, taking into account its specific features.

In turn, we have a number of tasks ahead of us in improving the institution of "Rehabilitation in Criminal Proceedings" on the basis of the requirements of modern jurisprudence. These tasks include:

1) Re-analysis of cases of "rehabilitation in criminal proceedings" through the implementation of best international practices in criminal procedure legislation and the study of problems associated with the application of these cases;

2) Improvement of certain types of cases "Rehabilitation in criminal proceedings" on the basis of the requirements of modern jurisprudence.

Rehabilitation in criminal proceedings and the procedure for their application are set out in both the criminal procedure legislation of foreign countries and our national legislation.

In particular, Article 83 of the Criminal Procedure Code of the Republic of Uzbekistan [4] provides **grounds for rehabilitation**, and this article identifies **3 cases**.

1) If the case has been initiated and no criminal incident has occurred in the case in which the investigative actions or court proceedings were conducted;

2) If there is no criminal element in his act;

3) If it is not related to the crime committed.

The above circumstances, as well as the existence of an acquittal under Article 301 of the Code of Criminal Procedure, are grounds for rehabilitation.

Unlawful detention of a rehabilitated person in accordance with Article 302 of the Criminal Code of the Republic of Uzbekistan, unlawful detention as a precautionary measure, has the right to recover property damage caused to him as a result of unlawful dismissal due to his involvement in the case as a defendant and to demand compensation for the consequences of moral damage, article 309 sets out the procedure for compensating for the consequences of moral damage inflicted on a rehabilitated citizen. In such cases, the rule that the moral damage caused to the citizen shall be compensated in accordance with the procedure provided for in the general civil legislation is strengthened.

There is also partial rehabilitation, and Article 303 of the Criminal Procedure Code sets out the grounds and consequences of partial rehabilitation. According to it, the following is the basis for partial rehabilitation of a person:

1) A person has been sentenced to a term of imprisonment or restriction of liberty or a non-custodial sentence less than that of a person in custody or house arrest;

2) The partial removal of the charge from the sentence and the consequent impossibility of lawful custody or house arrest or deprivation of liberty or restriction of liberty;

3) Whether the term of imprisonment or restriction of liberty has been reduced by the higher court in comparison with the term actually served or replaced by another lesser type of punishment;

4) unreasonable detention, imprisonment or house arrest, placement in a medical institution in cases where a sentence has been passed without a criminal penalty.

As for the consequences of partial rehabilitation, partial rehabilitation entails compensation for the unjustified part of the property damage caused to the accused or convicted person, and the elimination of the unjustified part of the consequences of moral harm.

The rehabilitated person also has other rights, in addition to the right to compensation for moral damage, the restoration of which is provided for in article 310 of the Criminal Procedure Code. According to it, unlawful conviction, unlawful placement in a medical institution, unlawful detention or house arrest as a precautionary measure, dismissal from office (position) due to unlawful detention, or involvement in the case as an accused, defendant a person who has been unlawfully removed from office shall be reinstated in his previous job (position); if the enterprise, institution, organization is liquidated or other grounds provided by law do not allow him to return to his previous job (position), he should be given another job (position) equal to the previous one.

Also, as a precautionary measure, the time spent by the rehabilitated as a precautionary measure, the time spent in custody or under house arrest, the time spent serving the sentence, the time spent on leave in connection with dismissal, the time spent in a medical institution are taken into account. added to the total length of service.

In addition, a person who has been unlawfully convicted, detained as a precautionary measure, or placed under house arrest, detention, or placed in a medical facility must be reinstated at the request of the person expelled from the institution.

However, a person who has been deprived of the right to use a dwelling in connection with an illegal conviction or the use of compulsory medical measures must be returned the dwelling he previously occupied, if it is impossible to return it, a dwelling with equal conditions in the same village. -the seat will be provided.

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Also, the validity of the passport (travel document) is restored by issuing a new passport (travel document) to a person whose passport (travel document) has been suspended due to an illegal conviction or involvement in the case as an accused, defendant. In addition, the Code of Criminal Procedure provides for the restoration of rights in the form of a claim, according to which a person's claim for the restoration of employment, pension and housing rights, as well as the return of property or payment of its value is denied or the person does not agree with the decision , he has the right to apply to the court in the order of litigation with the relevant claim.

However, with regard to the term of the claim, the rehabilitated person or persons specified in part three of Article 304 of the Criminal Procedure Code have the right to demand compensation for property damage within two years from the date of receipt of the ruling or decision on acceptance. such payments.

Rehabilitation of other rights can be requested by a rehabilitated person within one year from the date of receipt of a notification letter explaining the procedure for restoration of rights. If this deadline is missed for valid reasons, it must be reinstated by the inquiry officer, investigator, prosecutor or court at the request of the person concerned.

The criminal procedure legislation also addresses the issue of rehabilitation of servicemen, according to which the rehabilitation, rehabilitation, housing and other personal and property rights of rehabilitated servicemen and the restoration of property and compensation for property damage, elimination of the consequences of moral damage The Prosecutor General, the Minister of Defense, the Minister of Internal Affairs, the Chairman of the State Security Service, the Chairman of the State Security Service of the President of the Republic of Uzbekistan and the Commander of the National Guard of the Republic of Uzbekistan.

It is obvious that the restoration of the rights of rehabilitated servicemen will be carried out in a separate order.

The analysis of the above shows that the term rehabilitation is not defined in the Criminal Procedure Code of the Republic of Uzbekistan. If we look at the institution of rehabilitation in the example of countries around the world, in some countries, rehabilitation is defined at the constitutional level. For example, in Albania, Vietnam, Guatimala, and Honduras, the principle of compensation for damages, as well as the right of a citizen to rehabilitation, is enshrined in the constitution [5, -p 121]. Of course, it is very right to strengthen the institution of rehabilitation at the constitutional level, because it is not only the restoration of human rights, but also the restoration of the violated rights of the individual.

Also, Article 7 of the Code of Criminal Procedure of the Republic of Belarus states that rehabilitation, full compensation for damages, as well as the restoration of rights violated as a result of illegal criminal prosecution is one of the tasks of criminal proceedings.

In addition, Article 5, Paragraph 34 of the Criminal Procedure Code of the Russian Federation defines the term rehabilitation. It defines rehabilitation as rehabilitation, which is the restoration of rights and freedoms violated as a result of unlawful or unjustified criminal prosecution, as well as compensation for damage caused to him.

An analysis of the tariffs for the term rehabilitation in the legislation of foreign countries shows that in some countries the term rehabilitation is defined in law, which covers this concept in detail. The main purpose of elucidating such a term is that the laws are not only for lawyers but also for the common people, and for the people to understand these laws and exercise their rights properly.

CONCLUSION

In short, when analyzing this article above, we saw that the legislation of the Republic of Uzbekistan does not define the term "rehabilitation". If the concept of rehabilitation was introduced into the Criminal Procedure Code of the Republic of Uzbekistan, it would be a step towards the transition to a civil society. The reason is that the main criterion of civil society is that citizens understand their rights and duties, as well as be able to use them properly. To do this, laws must be clear and concise, as well as the terms in the law must be defined.

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A Comparative Analysis on the Challenges of Online Learning Modality and Modular Learning Modality: A Basis for Training Program

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ABSTRACT: *Online Learning and Modular Learning Modalities are being utilized by the Department of Education to continue the learning process during COVID -19 pandemic. The study has employed Mixed method to determine the problems and challenges of both public and private school teachers in utilizing online and modular learning modality. Interviews revealed that each sector has a problem in internet connectivity. Specifically, public school teachers are being challenged by the scarce resources of the students and unresponsive parents. Private school teachers are being challenged by the lack of training on the different online platforms for online teaching and learning process and assessment of learning this new normal. U- Test revealed that the challenges experienced by public and private school teachers in delivering distance learning are essentially the same. Moreover, it can be said that the type of school where a teacher works has no bearing with the challenges that he or she may encounter.*

KEYWORDS: *Online Learning, Modular Learning, Public School Teachers, Private School Teachers, Challenges, Problems.*

INTRODUCTION

The Philippine education system is currently adapting to the latest blended learning model, which is now being introduced throughout the world. Despite calls for an academic freeze in the aftermath of the Coronavirus outbreak, the Education sector insists that education should not be jeopardized. Teachers, particularly traditional teachers, are finding it difficult to cope with this pandemic. The world stopped and the economy collapsed as all businesses shutdown operations. For instance, to prevent the virus from spreading, most countries closed schools, colleges, and universities. Not only the health and education sectors were affected by the crisis. During the pandemic's peak, educational institutions offered remote learning as an alternative.

Despite the closure order, classes are held (Kasrekar, 2020). Since face-to-face lessons are more likely to spread the virus, the most effective option is to teach and learn online. This platform poses a challenge to both teachers and students because it exposes them to something different. In the midst of the pandemic, this necessitates an 'adopt quickly' answer to the new standard in teaching and learning. The transition to online learning came too soon, so academic institutions must strategize and drive new teaching pedagogies. The question of whether private and public schools are prepared in terms of technological infrastructure and teaching pedagogy remains unanswered.

According to Magsambol (2020), there is a strong divide between those who can and cannot afford the money required to access the modern education platform. With the DepEd's mantra "no child left behind," the general state of children in the public school system sends a message of injustice. Training, on the other hand, cannot be canceled as much as the economy wants.

In controlling the spread of the disease, teachers are introducing new rules, practices, and classroom configurations. Others are designing brand new online curricula for students who will be studying from home. They are forced to do so at the same time, and with insufficient financial resources. Holding students interested is the most challenging aspect of teaching online. To do so, their greatest need is for instructional technology: laptops, tablets, document cameras and other technology to help them do demonstrations and keep their students interested in the content.

In the above mentioned point, the objective of this study is to craft an action plan that can help both private and public school teachers in teaching during this time of pandemic. The action plan will be based on the experiences of public and private school

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teachers during this new normal. This paper also aims to be the guiding light of DepEd in crafting their policies in assisting their teachers, both in private and public in the time of new normal.

PROBLEM AND RESEARCH QUESTION

The major problem of the study sought answers on "How do problems of teachers both private and public schools in using new modalities be catered?

Specifically, the study sought answers to the following questions:

1. What problems do teachers both private and public schools encounter while teaching using new modalities?
2. What would teachers both private and public schools suggest to solve the problems encountered?
3. Is there a significant difference between private and public school teachers in terms of challenges and problems encountered?
4. What training program can be proposed to enhance teachers' pedagogy both private and public schools in using new modalities?

METHODOLOGY

Mixed methods studies will incorporate qualitative and quantitative techniques into a single or multiphase study's "analysis methodology" (Tashakkori & Teddlie, 1998: 17-18). These studies employ an interactive (systemic) approach to take advantage of each individual process in order to obtain more accurate answers to the study questions at hand (Maxwell & Loomis, 2003).

This research employs Creswell's mixed methods approach, which is rooted in a philosophical worldview; pragmatism that recognizes the importance of multiple approaches to conducting inquiry, with the researcher drawing liberally on both quantitative and qualitative assumptions.

The effectiveness of mixed methods study is focused on the idea that people solve problems using both numbers and phrases. This study's sequential explanatory mixed methods architecture usually has two phases: (1) A quantitative process is preceded by a qualitative phase that builds directly on the quantitative phase's findings.

The study's quantitative strand, or first step, used a survey design to provide a quantitative or numeric summary of a population's patterns, behaviors, or opinions by analyzing a sample of that population. The qualitative strand, or second step, of the analysis used a phenomenological design, in which the researcher decides the nature of human perceptions about a phenomenon as defined by the participants. The researcher was not only collecting and analyzing all types of data, but also integrating them so that the overall intensity of the analysis is greater than either quantitative or qualitative research or of similar value.

The quantitative or numeric data is collected and analyzed first, followed by the qualitative or text data, which helps to illustrate, expand on, or extend the quantitative results obtained in the first step. The researcher used the quantitative data to classify and intentionally select participants for follow-up in this study, so the focus was on the second qualitative process. To see the richness of real social experience, the in-depth interviews go "beyond the numbers" that were documented in the quantitative study.

Mixed methods research refers to research which integrates both qualitative and quantitative elements in a single study (Creswell & Plano Clark, 2011; Wisdom, Cavaleri, Onwuegbuzie, & Green, 2012). This is beyond simply the inclusion of open-ended questions in a survey tool or the collection of demographic data from interview participants, but rather involves the explicit integration of qualitative and quantitative elements in a single study. It is this integration that characterizes the mixed methods approach, as distinct from a "combined approach" whereby qualitative and quantitative elements are used together but not integrated. While the paradigmatic debate of whether qualitative and quantitative elements can be combined has been largely overcome, there remains several issues around the quality of mixed methods research that need to be addressed.

2.1 Respondents of the Study

The respondents were the selected teachers who came from Private and Public teachers from Bulacan and Pampanga. They were purposively and randomly chosen from private and public schools. Most of them served the school for more than a year. And they came from different grade levels and taught different subject areas. They are also employed during Academic School Year 2020- 2021. The total number of respondents and its distribution per school was determined through the use of purposive sampling. The researchers selected the respondents who can provide the best information.

2.2 Instrument of the study

In order to gather significant information, a self-made survey questionnaire on this study entitled "Teacher's Challenges in Employing New Modalities in The New Normal Education" was utilized. The survey was divided into three areas buoyed in

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"Teacher's Challenges in Employing New Modalities In The New Normal Education" and the variables of the study: Profile of the respondents, Learning modalities used, and challenges encountered in using new modalities in the new normal.

It has a 5 – point Likert scale to determine the extent of improvement. The mean results of the data gathered were tabulated. The researchers also utilized questionnaire with self-made questions for survey via online interview to learn the different challenges and problems encountered by public and private school teachers in using different modalities of teaching this new normal.

Table 1: Summary of Problems and Suggestions of Public-School Teachers in Using the New Modalities of Teaching.

Problems encountered by Public School Teachers	Public School Teachers' Suggestion about the Problems on Using the New Modalities
1."Poor internet connection."	1.Look for better service of internet provider.
2.Some parents cannot go to school to get the module due to lack of money."	2.Utilize 'pakisuyo' system (friend, classmate or relatives).
3.Unresponsive Students and Teachers	3."Parents, teacher and students conduct assembly."
4. "Learners have a hard time coping up with modular instruction, thus, creating a large gap on student learning."	4."Proper guidance from parents, continuous communication between the parents and teachers."
5. No all students have gadgets	5. It's the finances/support coming from the parents and/or the government to provide them the resources needed to cope up with this situation..

Table 1 presents the summary of problems encountered by the public school teachers in using the new modalities of teaching.

The data gathered revealed that the teacher-respondents experience problems in using the new modalities of teaching. This problem affects the teaching and learning process because classes are often interrupted, and some students cannot even join online classes.

Some public-school teachers find it difficult to use the new modalities of teaching because of the following reasons: poor internet connection of both teachers and students, parents' financial status, unresponsive students and parents, coping mechanism of students in terms of modular modalities and the lack of students' resources, specifically gadgets that can be used for online learning.

However, the respondents also suggested solutions that may cater the above-mentioned problems. They suggested that teachers and students may look for a better internet provider. For unresponsive students and parents, they suggested to have a "Parents, Teacher and Students Assembly" via Google Meet or Face to Face Assembly while following the health protocols. They also suggested proper guidance from parents and strengthening the communication of parents and teachers for the learners having a hard time coping up with the modular instructions. Lastly, they suggested financial support from the government for the students that do not have gadgets for online learning.

Stable and fast internet connection supports the instructional delivery in online distance learning. However, the Philippines' fixed average speed as of early this year is only 26.18 mbps, which makes the country rank 114th in the world for mobile speeds and 108th for fixed broadband speeds (Ookla, LLC, 2020). Teachers rely on internet for communication and utilization, but stability and speed hinder them to do so. The participants mentioned that unstable and slow internet connection impede their duties and works. Signal interruption in different geographic sites adds up also to the situation which is out of teachers' control. Teachers are not exception by the lagging internet connection which would miss out essential discussions when the internet freezes during synchronous classes (Alvarez, 2020). The success of any online distance learning modality heavily relies on internet connection because a failure can detract the entire online learning experience.

Table 2 : Interview Responses: Problems Encountered of Public-School Teachers in Using New Modalities

Participants	Response
Teacher No.1	"Poor internet connection and unresponsive students and parents"
Teacher No. 2	"Students are not answering their modules'
Teacher No. 3	"Not all students have internet access and gadgets"

Teacher No. 4	"Intermittent signal of internet connection, unexpected meetings online"
Teacher No. 5	"Students behavior/study habits and parents' inability to cooperate"
Teacher No. 6	"There is the difficulty in designing and developing content suited to the online environment".
Teacher No. 7	"Students are incapable to attend online class, no gadgets, no internet connection. In terms of modular learning, parents are sometimes too busy to get the modules."
Teacher No. 8	"Students can't attend online classes because of internet connection"
Teacher No. 9	"Unstable means of communication."
Teacher No. 10	"Participation of the students are limited."
Teacher No. 11	"Communicating with the students because students have poor internet connection and no gadgets to be used for online learning."
Teacher No. 12	"Internet connection and students' lack of interest."
Teacher No. 13	"Students' internet subscription cannot sustain the needs in Online Learning Delivery."
Teacher No .14	"Unstable internet connections."
Teacher No .15	"Internet connection, gadgets, student's behavior, teacher readiness".
Teacher No. 16	"Hardship in relaying lessons."
Teacher No. 17	"Poor internet connection."
Teacher No. 18	"Not all students have gadgets and internet. Some parents cannot go to school to get the module due to lock of money."
Teacher No. 19	"Fewer students can join during screen time".
Teacher No. 20	"Accuracy of the learning competency of the learners."
Teacher No. 21	"There are many problems in the current situation, but I think the hardest to deal with is to discipline the students."
Teacher No. 22	"Communication between students and parents."
Teacher No. 23	"Unstable internet connection."
Teacher No. 24	'There are so many students who are not always finding time to connect online that's why they cannot comply with the requirements that they need to submit".
Teacher No. 25	"Difficulties in getting the students' focus on their lessons."
Teacher No. 26	"I had a hard time checking their activities, most of the time they don't have answers."
Teacher No. 27	"Students cannot open the cam during screen time and when called to answer the question I got no answers from the student ."
Teacher No. 28	"No good communication."
Teacher No. 29	"Poor internet connection, No Available Gadgets on the part of the students."
Teacher No. 30	"Learners have a hard time coping up with modular instruction, thus, creating a large gap on student learning.".
Teacher No. 31	"Unstable internet connection."
Teacher No. 32	"Adjustment period, time, internet reliability."
Teacher No. 33	"Internet connection."
Teacher No .34	"It is a challenge as well as a new learning process for me."
Teacher No .35	"Poor internet connection, update the unresponsive students."
Teacher No. 36	"Some students cannot follow instructions, and some are not responsive."
Teacher No. 37	"The resources of students are not enough to attend online learning."
Teacher No. 38	"Non responsiveness of the students"
Teacher No. 39	"unresponsive students."
Teacher No. 40	"Lack of gadgets and internet connections."
Teacher No. 41	"Communication with students."
Teacher No. 42	"Intermittent internet connection of students as well as the lack of gadgets and

	device of some students. When it comes to printed materials, there were times where the sorts modules have missing pages or subjects"
Teacher No. 43	"Some of the students do not submit their answer sheets on time and also the parents didn't get the modules on time".
Teacher No. 44	"Unresponsive students and parents"

If there are problems, there were also solutions suggested by the participants. Table 3 shows the responses of the public school teachers in question number 2 which is "What suggestions can you give to solve the problems you encountered in using the new modalities?

Table 3: Interview Reponses: Suggestions of Public School Teachers to Solve the Problems encountered in Using New Modalities

Participants	Responses
Teacher No. 1	"Conduct online meeting w/ parents at least once a month."
Teacher No. 2	"If they difficult for them to answer the module I can teach them one on one via zoom class."
Teacher No. 3	"Make the parents accountable to students' learning."
Teacher No.4	"Provide a backup plan to alleviate the problems encountered".
Teacher No. 5	"Assign 1 staff/person to monitor students who are difficult to deal with on blending learning approach."
Teacher No. 6	"I suggest that collaboration with colleagues and/or scheduled meeting with the faculty and higher ups should be done so that these problems will be discussed and possible solutions may be given".
Teacher No. 7	"The government should strategize more plans in developing the country's internet capabilities as well as a lot more funds for gadgets since this pandemic is yet so far to reach its ending."
Teacher No. 8	"The country ISP should improve their services. The internet connection in the country is below the average of Internet speed in the region".
Teacher No. 9	"Preparations and anticipations of learner's outcomes or outputs".
Teacher No. 10	"Prolong the patience."
Teacher No. 11	"Trying every means."
Teacher No. 12	"Free internet provider, unrelenting patience."
Teacher No. 13	"Strengthen the partnership with the stakeholders, specially LGU to supply the needs of our students in coping with the new normal class/setup".
Teacher No. 14	"To conduct monthly maintenance in devices, routers, and to Internet provider".
Teacher No. 15	"Ask more help form the department."
Teacher 16	"Provide better communication."
Teacher No. 17	"Look for better service of internet provider."
Teacher No. 18	"A better schedule of distribution."
Teacher No. 19	"It's the finances/support coming from the parents and/or the government to provide them the resources needed to cope up with this situation.. But I know it's beyond the control of the government maybe if all the parents and the teachers will be fully cooperative to each other, there will be more positive outcome for everyone"
Teacher No. 20	"face to face class"
Teacher No. 21	"Parents should always be part of the learning of their children."
Teacher No. 22	"By keeping in touch with students and parents, and answering their queries as much as I can".
Teacher No. 23	"Another modalities suitable for this situation."
Teacher No. 24	"There should be more trainings for the teachers to be more effective and confident in handling online classes."

Teacher No. 25	"Good communications between teachers and parents."
Teacher No. 26	"I had to lessen the activities to be answered, limited to items with answers. I had to disregard additional activities which will totally measure or gauge their understanding."
Teacher No. 27	"I suggest that we as teachers should try different strategies to get the attention and interest of our students."
Teacher No. 28	"Minimal number of students and less sections should be handled by each teacher so they can manage and guide their students at a maximum level."
Teacher No. 29	"Minimal number of students and less sections should be handled by each teacher so they can manage and guide their students at a maximum level."
Teacher No. 30	"Give gadgets to those who can't afford to have one."
Teacher No. 31	"Proper guidance from parents, continuous communication between the parents and teachers."
Teacher No. 32	"Internet providers should fix their connections for a better service."
Teacher No. 33	"There should be proper consultation to all the stakeholders so that everyone can meet halfway in this new normal set up."
Teacher No. 34	"Help teachers and learners in providing gadgets and stable internet connections."
Teacher No. 35	"Having LAC sessions and webinars as well as additional trainings for teachers."
Teacher No. 36	"Conduct best practices."
Teacher No. 37	"Follow up messaging and a lot of patience with the situation of our students in this time of pandemic."
Teacher No. 38	"Apply what I have learned in seminars"
Teacher No. 39	"Be creative in finding ways in order to reach them."
Teacher No. 40	"Teachers must exert effort to communicate with the learners."
Teacher No. 41	"Parents, teacher and students conduct assembly."
Teacher No. 42	"Maintain a consistent communication with parents/guardian via 'kumustahan' or informing them regularly during retrieval and distribution of modules."
Teacher No. 43	"Suggesting that each student should receive a gadget or devices for online learning is too much. So would just go to providing interventions to those who misses the chance to attend online sessions".
Teacher No.44	"Provide students with alternative learning materials."

Table 4 presents the problems and suggestions of private school teachers in using the new modalities of teaching.

Private school teachers expressed concerns about poor internet connection of both students and teachers, technical problems in using online application that can be utilized in online teaching and learning, and also, they expressed concerns about assessing the activities of the learners.

The participants clearly suggested that both teachers and students should have a good internet provider. School should provide teachers, students and parents, training on different online application that can be utilized in online teaching and learning. They also suggested that there should be topics to be discussed synchronously and asynchronously. Schedules should provide online and offline learning tasks to meet students' need.

Table 4: Summary of Problems and Suggestions of Private School Teachers in Using the New Modalities of Teaching.

Problems encountered by Public School Teachers	Public School Teachers' Suggestion about the Problems on Using the New Modalities
1. "Internet connection."	1. "Have a good internet provider/resource."
2. Technical problems and new system in preparing the lessons that we can't control however we can used to it as time goes by."	2. I suggest having more trainings for the teachers, parents, and students so we can all learn whatever new system that we need to have."
3. It is so hard to give them grades, not sure if they are really the ones who made a certain activity or what."	3. There are topics discussed synchronously and asynchronously. There are offline and online learning tasks and schedules are flexible to meet students' needs"

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Manalo (2020) mentioned that financial constraint hampers the preparation for online distance learning. There are required specifications of mobile phones, laptops, desktops, and other gadgets. And so, the upgrade entails finances. Teachers do not have the most appropriate devices to run an online distance learning since there is no provision for additional budget. Instruction-related challenge in online distance learning is rooted in financial difficulties.

Mayol (2020) found out that the very first problem is that teachers themselves claim that having strong internet access is a key problem in the delivery of their lessons. In terms of teachers development and support, De Villa and Manalo (2020) revealed that as education migrates in the new normal setup, teachers make necessary preparations to equip themselves with distance learning.

With regards to the students' assessment, the answers provided by the respondents corroborates with the findings of Guangul et. al. (2020) that one of the challenges identified in remote assessment were academic dishonesty, coverage of learning outcomes, and commitment of students to submit assessments on which teachers are not sure whether the students are the ones who do the activities.

Table 5 : Interview Responses: Problems encountered of Private School Teachers in Using New Modalities

Participants	Responses
Teacher No. 1	"When the student cannot attend the online class because of lack having a data or internet provider."
Teacher No. 2	"Internet connection."
Teacher No. 3	"Unstable internet connectivity during online classes at times as well as the approach in teaching and securing students' attention during online classes.
Teacher No. 4	"It is so hard to give them grades, not sure if they are really the ones who made a certain activity or what."
Teacher No. 5	Technical problems and new system in preparing the lessons that we can't control however we can used to it as time goes by."
Teacher No. 6	"Sometimes I experienced the internet interruption, so it hinders the flow of the lessons".
Teacher No. 7	"Familiarity, resources and connection."
Teacher No. 8	"Internet connection"
Teacher No .9	"Lack of participation because of internet accessibility".
Teacher No. 10	" Using new applications for online Teaching"

If there are problems, there were also solutions suggested by the participants. Table 3 shows the responses of the public school teachers in question number 2, which is "What suggestions can you give to solve the problems you encountered in using the new modalities?

Table 6: Suggestions of Private School Teachers to Solve the Problems encountered in Using New Modalities

Participants	Responses
Teacher No. 1	"We should understand the situation of every students. Patience and love in our profession is only the key."
Teacher No. 2	"Have a good internet provider/resources."
Teacher No. 3	"I hope that families, school and students work more hand in hand in supporting effective learning for students."
Teacher No. 4	"Think of another way on how learners will be assessed ."
Teacher No. 5	"I suggest having more trainings for the teachers, parents, and students so we can all learn whatever new system that we need to have."
Teacher No. 6	"When we encountered this kind of problem, we always need to have a back-up plan for the students to continue the flow of the lesson even though there's an interruption with internet."
Teacher No. 7	"Support emotionally, financially and understanding from different parties."

Teacher No. 8	"Teachers must be flexible; we should provide alternative activities that do not require internet access."
Teacher No. 9	"Make a better change of our country's internet speed connection."
Teacher No. 10	"Provide the students with gadget and accessible internet connection."

Difference in the Challenges Encountered by Public and Private School Teachers

In order to analyze the difference existing between the challenges experienced by public and private school teachers handling online and modular distance learning modalities, the Mann-Whitney U-Test was conducted. The results of this is shown on the table below.

Table 7: Differences in the Over- all Challenges Encountered by Public and Private School Teachers

Group	Mean Ranks	Test Statistic (U)	p-value	Decision	Remarks
Public	26.99	179.50	0.161	Do not reject Ho	Not Significant
Private	34.68				

It can be observed from the above table that the public and private school teacher-respondents registered a mean rank of 26.99 and 34.68, respectively. Further, a test statistic of U = 179.50 (p = 0.161 > 0.05) is computed. This led the researchers not to reject the null hypothesis and conclude that the difference between the challenges encountered by public and private schools is not significant.

The results imply that the challenges experienced by public and private school teachers in delivering distance learning are essentially the same. Moreover, it can be said that the type of school where a teacher works has no bearing with the challenges that he or she may encounter. This result was supported by Acheta and Ancheta (2020), that public and private schools are both affected by the pandemic in terms of teaching modalities to be adopted, challenges in assessment of students, role of teachers, parents, and learners. In another study conducted by Altbach and De Wit as cited in Navarosa (2020), among the top concerns of this virtual opening of classes whether public or private schools are the access to the appropriate technology required for remote learning, teachers' training, and instructional materials, and online curricula for modular approach. Thus, being a public or private school does not matter anymore when challenges in education were talked about due to COVID-19 Pandemic.

CONCLUSIONS

In this paper, the researchers, drawn the following conclusions based on the findings on the Comparative Analysis on the Challenges of Online Learning Modality and Modular Learning Modality: A Basis for Training Program. These are the following:

1. **Public School Teachers:**
   Public School Teachers encountered poor internet connection. Some parents cannot go to school to get the module due to financial incapacity. There are also unresponsive students and parents. Learners had a hard time coping up with modular instruction, thus, creating a large gap on student learning. Not all students have their own gadgets.

2. **Private School Teachers:**
   Private School Teachers are having poor internet connection, technical problems and new system in preparing the lessons that they can't control. However, they can be used to manage it as time goes by. They experienced difficulties in giving grades, not sure if they are really the ones who made a certain activity or what.

3. **Differences in the challenges encountered:**
   The challenges experienced by public and private school teachers in delivering distance learning are essentially the same. Moreover, it can be said that the type of school where a teacher works has no bearing with the challenges that he or she may encounter.

RECOMMENDATIONS

Based on the above conclusions, the research come up with the following recommendations on the Comparative Analysis on the Challenges of Online Learning Modality and Modular Learning Modality. These are the following:

1. **Public School Teachers:**
   Public School Teachers should look for a better service of internet provider and utilize *pakisuyo* system (friend, classmate or relatives). Parents, teachers, and students should conduct a virtual assembly to discuss some issues and

concern. Proper guidance of parents and continuous communication between parents and teachers should be indispensable. Financial support coming from the parents and/or the government is needed to provide them the important resources in this time of pandemic.

2. **Private School Teachers:**

   They should have a good internet provider and electronic resources. They should undergo more trainings for the teachers, parents, and students so they can all learn whatever new system that they need to have. They must be well oriented what topics should be discussed synchronously and asynchronously. They should continue giving off-line and on-line learning tasks which are flexible to students' needs.

Part II . Proposed Training Program

Introduction:

The Proposed training Program will develop public and private school teachers' competencies in utilizing online and modular learning modalities. The said training program is perceived to cater the needs of teachers regarding the new normal education.

Rationale:

Findings revealed that there were problems identified by the public and private school teachers such as poor internet connection of both teachers and students, parents' financial status, unresponsive students, and parents, coping mechanism of students in terms of modular modalities and the lack of students' resources, specifically gadgets that can used for online learning, technical problems in using online application that can be utilized in online teaching and learning, and also, they expressed concerns about assessing the activities of the learners.

General Objective:

The general objective of this training program is to equip teacher's competencies and provide activities that may cater the problems in utilizing the online and modular learning modalities.

Teachers' New Normal Education Competencies Proposed Training Program

Target Group	Program and Activities
Public and Private School Teachers	**Seminar Workshop on the Different Assessment Tools This New Normal** Objective: • To apply lesson design and assessment considerations for distance learning in the light of COVID -19 crisis Activities: • Seminar on "Formative Assessment During Distance Learning." Venue: • Google Meet Time Frame: • Tentative date: March 2021 Resources Needed • Human - Resource Speaker • Materials - LDM2 Sources of Fund: • Personal Fund

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	Budget allotted:
	    • 1,000 Php
	
	Expected Outcomes/ Outputs:
	    • Create an evaluation tool designed for New Normal Education

Public and Private School Teachers	**Seminar Workshop on Different Online Application on Online Learning**
	
	Objective:
	    • To familiarize and use different online application properly for online learning modality
	Activity:
	    • Seminar Workshop on using Google Meet, Classroom, Zoom, Kahoot and so on.
	Venue:
	    • Google Meet
	
	Time Frame:
	    • April 2021
	
	Resource Needed:
	    • Human: Resource Speaker
	    • Materials: Internet
	
	Source of Fund:
	    • Personal Fund
	
	Budget Allotted:
	    • 1,000 Php
	
	Expected Outcome/ Output:
	    • Demonstration Teaching

Public and Private School Teachers	**Seminar Workshop on Monitoring Students this New Normal**
	
	Objective:
	    • To Craft an Action Plan in Properly Monitoring the learning of the learners.
	Activity:
	    • Writeshop/ Seminar
	
	Venue:
	
	    • Google Meet
	Time Frame

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	• April 2021
	
	Resource Needed
	
	  • Human – Resource Speaker
	  • Materials- Internet
	
	Source of Fund:
	
	  • Personal Fund

	Budget allotted:
	
	  • 1,000 Php
	Expected Outcome/ Output:
	
	  • Action Plan on Monitoring students in this New Normal Education

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Appendices

QUESTIONAIRE

Challenges Teachers Encountered in Using New Modalities

in the New Normal

Part I. Written Interview:

1. What problems do you encounter while teaching using new modalities?

_____
_____
_____
_____
_____
_____
_____

2. What would you suggest to solve the problems encountered?

_____
_____
_____
_____
_____

_____

Part II: Challenges Teachers Encountered in using New Modalities in the New Normal

This part of the questionnaire will determine the challenges encountered by the teachers in using different learning modalities during the new normal.

Directions: Read each statement carefully. Indicate your answer under the appropriate column you mostly prefer based on the rating scale by putting a checkmark (/). The researchers, have used an adapted rating scale to help quantify the needed data for the research study.

DESCIPTION OF RATING SCALE

STRONGLY AGREE- You are in agreement with the statement to a very high extent.

AGREE- You believe that statement is true to some extent.

UNDECIDED- You do not know about it or cannot say.

DISAGREE- You totally disagree with the statement.

SLIGHTLY DISAGREE -You believe that statement is not true to some extent.

QUESTIONS					
A. SCHOOL ADMINISTRATION/ POLICIES	**1** **SA**	**2** **A**	**3** **UN**	**4** **D**	**5** **SD**
1. Our administrator/s explained well about Basic Education Learning Continuity Plan (BE-LCP) adopted by our school.					
2. Our school provided modules.					
3. The administration provided training to the teachers on the new modality, techniques and technologies					
4. Both the Admins and the Teachers have clear understanding of the process of production and reproduction of modules					
B. TEACHER'S WORK	**1** **SA**	**2** **A**	**3** **UN**	**4** **D**	**5** **SD**
1.) Teachers spent time beyond official working hours to sort out and organize modules- policy.					

	1 SA	2 A	3 UN	4 D	5 SD
2. Teachers were asked to craft our own Learning Activity Sheets (LAS) - policy					
3. Teachers were tasked to do intervention to student's with poor performance.					
4. Teachers spent our own resources in making modules/ LAS. Policy					
5. Teachers should conduct home visitation.					
6. Teachers checked too many modules/LAS.					
7. Teachers 'devices/ gadgets have the capacity to conduct online teaching.					
8. Teachers' internet provider is reliable.					
9. Teacher has the capability to use social media platforms, productivity tools, creative tools, LMS, e-learning hubs for teaching.					
10. Teacher has the capability to use online application for assessment					
C. PARENT'S INVOLVEMENT/ ROLE	**1 SA**	**2 A**	**3 UN**	**4 D**	**5 SD**
1. Parents did not return and receive modules on the scheduled date of distribution.					
2. Most of Parents/Guardian cannot teach their children.					
3. Parents/Guardians are the one who answer the modules supposedly for learners.					
4. Parents/Guardians were hard to reached or communicate.					
5. Parents are willing to follow teachers designed learning routines at home.					
6. Parents are willing to have an alternative delivery mode					
7. Parents are willing to provide minimum gadget needs at the start of school year.					
8.Parents have the capacity to provide a learning space for students at home.					
9. Parents have the capability to tutor the child.					
10. Parents prioritize attending online meeting with teachers					
D. LEARNERS' ACADEMIC PERFORMANCE/BEHAVIOR	**1 SA**	**2 A**	**3 UN**	**4 D**	**5 SD**
1. Learners' behavior and attitude is difficult to control.					
2. The basis for learners' evaluation is merely on modules only.					
3.Students 'devices/ gadgets have the capacity to conduct online Learning.					
4. Students' internet provider are reliable.					
5. Students have the capability to use social media platforms, productivity tools, creative tools, LMS, e-learning hubs for learning.					

6. Students are willing to use alternative delivery modalities					
E. MODULES/LAS	**1** **SA**	**2** **A**	**3** **UN**	**4** **D**	**5** **SD**
1. Activities in modules are too difficult for learners to answer and for teachers to execute.					
2. Modules provided answer keys which hinders genuine learning.					

Validation Letter

Dr. Anthony Venus
La Consolacion University Philippines

Sir:

The undersigned are Doctor of Philosophy students of La Consolacion University Philippines undertaking the study entitled, *"A Comparative Analysis on the Challenges of Online Modality and Modular Learning Modality: A Basis for Training Program"*, as their requirements in the subject Comparative in Education in the graduate studies.

In recognition of your competence and professional experiences, the researchers are requesting your comments and/or suggestions on the content validity of the questionnaire by filing out the boxes below. Your comments and/or suggestions will be considered significant inputs in putting the questionnaire to its final form.

Very Truly Yours,

AUBREY S. ABANTE   DANJO F. GUEVARRA   MYRON WILLIE III B. ROQUE

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Noted by:

DR. WENDELL CABRERRA
Professor

The Impact of Remittances on the Skipped Generation Households in Vietnam

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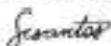[2,3]Student, Department of Human Resources Economics and Management, National Economics University, Hanoi, Vietnam

ABSTRACT: Using the data from Vietnam Living Standards Survey (VHLSS) 2014, 2016, 2018 of the General Statistics Office of Vietnam, we do research about the impact of remittances on skipped generation households. Through testing with the fixed effects model (FEM) and the random impact model (REM), we found that the remittances received by these households have positive impacts on children's education and children's health. Specifically, when increasing 1% of remittances, the probability of children going to school and entering the right age increases by 1,108 and 1,112 times; the opposite trend happened with the child malnutrition. Moreover, the degree of influence is also different for each form of remittance.

KEYWORDS: *remittances, skipped generation households, children's education , children's health*

1. INTRODUCTION

In recent years, along with the trend of strong global economic liberalization, the labor export activity has become ever more popular in all countries of the world. With the policy of easing remittance management, the amount of remittances sent to developing countries has significantly increased and accounts for a large proportion in the economy. According to statistics, in 2016, 537 billion USD of remittances were received globally, accounting for about 0.72% of world GDP. Ratha et al (2016) shows that remittances are the second most important source of international capital for developing countries, only behind Foreign Direct Investment (FDI) and always superior than the Official Development Assistance (ODA). From many other perspectives, remittances flow affects both the household level and the whole economy; influence macroeconomic management, labor force participation, education and health outcomes, income distribution and household expenditure patterns (Trang and Plaza, 2006).

In Vietnam, both internal and international migration have been increasing rapidly. According to the Population and Housing Census (2009), about 6.5% of the population over 5 years old had a change of residence between 2004-2009. The proportion of urban population increased from about 24% in 2001 to 30% in 2009 (Nguyen, 2012). This has resulted in a significant increase in international and domestic remittances, estimated at nearly 17 billion USD, ranking ninth in the world (World Bank, 2019). Therefore, the urgent issue is how to attract remittances, while controlling the amount of international and domestic remittances towards the most comprehensive socio-economic development goal. Especially, at a micro level, one of the most affected subjects of remittances is households (Trang, 2006)**.**

2. OVERVIEW AND RESEARCH METHODS
2.1. Concepts
2.1.1. Remittances

Remittances play an important role in the economic development of remittance areas because of their significant contribution to finance, typically in many developing countries (Todaro & Smith, 2012). However, most studies only focus heavily on international remittances due to the lack of available data on domestic remittances; Although migration and domestic remittances account for a larger share of total migration and remittances (Castaldo et al., 2012). Besides, each researcher has different views, so the concept of remittances is not really clear and unified.

With international remittances, Puri & Ritzema (1999) defined this as the income of foreigners sent home. With that same view, in many other later studies, international remittances have been broadly defined as cross-border remittances sent by overseas migrants to households in their home countries. , mainly to meet the family's financial needs. Specifically, in the IMF's

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Handbook of Balance of Payments (BOPM5), international remittances are remittances made by migrants; these people work in new economies for at least a year and send money back to their home country (Balance of payments Handbook, 2006).

With domestic remittances, this concept in the studies is not really specific and clear due to the different socio-economic characteristics in each country, leading to the difference in domestic remittances. However, the term domestic remittances has been mentioned in a few studies on the Chinese migration system. According to the International Organization for Migration (IOM, 2006), domestic remittances are part of a strategy to diversify rural livelihoods. For households in rural China, their source of income comes from agricultural and non-agricultural activities. Therefore, when the local economy does not satisfy non-farm jobs, family members will move to major cities in the country to work. At that time, the source of money transfers from internal migrants to the households in their home country was remittances (Hare, 1999). In many studies it has been found that the total amount of domestic remittances sometimes exceeds the amount of international remittances (Castaldo, 2012).

Thus, most previous studies have shown that remittances play an important role in promoting and developing the socio-economic of each country. Therefore, to match the practical situation in Vietnam, the research team will approach remittances in both aspects: international remittances and domestic remittances.

2.1.2. Skipped Generation Households

Skipped Generation Households include children and their grandparents - who are responsible for taking care of children on behalf of their parents due to migration for the purpose of finding work, improving income (Ingersoll - Dayton & plus, 2018). More specifically, Casper & Bryson (1998) restricts the number of children in the concept of the remaining generation to children under the age of 18.

At the same time, Fuller - Thompson (2005) defines Households that can be kept by relatives as families with only grandparents and grandchildren living together, without the presence of parents, uncles or any relatives. , which relatives. Many studies show that unemployment and low average income are the main reasons why many parents leave, handing their children to their grandparents to foster in order to find better jobs with the aim of improving family life. family (Kelly et al., 1997; Bryson & Casper, 1999; Minkler & Odierna, 2001; Bramlett & Blumberg, 2007).

2.2. The Impact of Remittances on the Skipped Generation Households

Since Backer's first work (1982), the allocation of time for work and rest in the household has received considerable interest in economics. Backer found the impact of remittances on consumer markets in developing countries showing conflicting results. On the one hand, remittances relax household-level economic restrictions, creating favorable conditions for new business activities, leading to increased workforce participation. On the other hand, remittances can reduce the supply of labor by increasing the income of household members through receiving remittances. However, research on these issues has yet to give a thorough explanation, especially in studying the effects of remittances on the generation of people staying behind, particularly children and the elderly in the household. .

Taylor (1992) used data collected in the 1983 and 1989 household living standards surveys on households and farms in the state of Michoacan, Mexico, and found that remittances alleviate household problems. liquidity, stabilizing consumption and investment in production. Thereby, remittances have a positive impact on reducing the number of child labor and restricting children entering the labor market. Then, Guarcello (2003) shows that through increasing income and consumption, remittances can improve children's health, as well as education. By 2006, Mansuri (2006) found that remittances sent by temporary migrants had a positive impact on children's school attendance, especially for girls. Experimenting with a Stackelberg model using data from the Republic of the Congo, the author points out that family members receiving remittances will express gratitude by choosing to invest more in children's education. Because this will reduce the burden on the migrants when they return. The results also confirm that for rural girls, remittances are statistically significant and have a positive impact on school attendance.

Similarly, Milgan & Bohara (2007) analyzed the impact of increases in income from remittances on academic achievement (level of education) and number of child labor (number of hours children worked) using procedures. Heckman's two steps for Nepal. The model estimates the impact of different types of income on child labor and education using data from the 2003 Nepal Living Standards Survey. The authors report on remittances from national sources. Health care sector positively and significantly contributes to child welfare in Nepal. If remittances are considered as an additional source of household income, when the income increases, parents do not need to let their children participate in production or business activities or participate in the market. labor school.

However, Taylor & Lopez Feldman (2007) reported that remittances may not lead to an increase in household income and consumption as they prevent them from earning higher income through labor-intensive activities. In other special cases, remittances can also pose a number of risk problems if remittance recipients lose motivation to work through income and replacement effects (Farrington & Slater, 2006; Sahn; & Alderman, 1996). The income effect lessens household budget constraints

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and increases salary retention for remaining members; while the substitution effect creates an incentive to cut down the labor supply to continue receiving remittances (Killingsworth, 1983; Amuedo-Dorantes, 2014). In addition, when the number of people migrating abroad is large, it means that the proportion of adults staying at home will decrease. This can have a major impact on the care and education of children. Without a caregiver, children may have poorer education and health and have to do more housework (Kandel & Kao, 2001; McKenzie & Rapoport, 2006). Research by Giannelli and Mangiavacchi (2010) in Albania shows that parental migration can have a negative impact on long-term school attendance, mainly due to a lack of parental interest in children. was left behind. In addition, as mentioned, if remittances and migration do not lead to an increase in income, the positive effects of remittances and migration on the education of children through the income channel will be negligible (Azam & Flore, 2006).

Thus, most of the research around this topic only gives the relationship between remittances and the generation of people staying in each separate aspect and not total. This leads to a gap in specifically identifying the positive and negative effects of remittances on the remaining generation, in particular the elderly and children in the household. From there, the research team found that, to consider most clearly about this relationship, it is necessary to clearly point out the impact of remittances on the following aspects: health, education and employment of the living generation. back in this relationship. However, in the framework of this article, we only consider the effects of remittances on the health and education of children in the skipped generation households.

3. RESEARCH METHODS

The main research method used in the model is econometric regression with the general model as follows:

$$Y = \beta_0 + \beta_1 \ln (X)_{it} + \beta_2 X_{it} + \beta_3 D_{it} + \beta_4 G_t + \varepsilon_{it}$$

In which:

Y: the dependent variable (including quantitative variables and dummy variables)

$\ln (X_{it})$: the amount of domestic remittances, international remittances and domestic remittances received over the years

X_{it}: the proportion of remittances in income and expenditure

D_{it}: a dummy variable to receive remittances or not ?

G_t: the dummy variable of years; ε_{it} are unobserved variables.

Since the dependent variables include both quantitative and dummy variables, the authors consider using different models suitable for each type of variable. According to Gujarati (2012), the Pooled OLS model is also known as the constant coefficient model and they are assuming constant time coefficients and cross observations, which ignores the dual nature of the array data. Therefore, in this study, we only focus on evaluating the values of the fixed effects model (FEM) and random impact model (REM) for the non-dummy dependent variable through the Hausman test (Durbin-Wu-Hausman test, 1978). The test results show that Prob> chi2 is greater than 0.05, so REM model selection is appropriate. The group also tested LM-Breusch Pagan and as a result, there is no variance of variance in the model. Models with dependent variables are binary should use either logit or probit (Gujarati, 2012). Since both models give similar results and the choice between these two models depends on the available software and which one is more easily explained, the team chose to use the logit model in the study. this.

4. DATA ANALYSIS

4.1. Data description

This study uses data from the Vietnam Household Living Standards Survey (VHLSS) 2014, 2016 and 2018. VHLSS surveys are conducted by the General Statistics Office of Vietnam (GSO) with support from the World Bank. The VHLSS surveys were conducted on selected households and communes in 63 provinces. Household data includes some characteristics of the household demographic, income, and expenditure; each family member's health, fixed assets, education, technical qualifications, and participation in social assistance programs. Commune data includes some general information on demographics, ethnicity, economic status, and health status of the people.

According to statistics, in each VHLSS survey it is possible to collect information from more than 9,000 households. This data set represents the total number of households living in all 63 provinces in Vietnam. In this study, the group used a sample of 5,136 households filtered from VHLSS data in 03 years 2014, 2016, 2018 with criteria on household characteristics relevant to the topic.

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Table 1: Variables Used in the Study

Variables	Components	Explanation
1. Remittance	R1: A binary (0 or 1 dummy) variable whether remittances are received	1: Households receive remittances 0: Households do not receive remittances
	R2: The value of remittances	ln(R2)
	R3: International remittances	ln(R3)
	R4: Internal remittances	ln(R4)
	R5: Ratio of remittances to household income	Total of remittances / Income of household*100
	R6: Ratio of remittances to household expenditures	Total of remittances / Expenditures of household*100
2. Skipped generation household	S1: A binary (0 or 1 dummy) variable whether children attend school	0: At least a child in the household does not attend school 1: The total children in the household attend school
	S2: A binary (0 or 1 dummy) variable whether children's school attendance at the right age	0: At least a child in the household is enrolled at the wrong age 1: All children in the household are enrolled at the right age
	S3: The proportion of children participating in health insurance in the household	The number of children participating in health insurance/ The number of children in the household
	S4: Are children malnourished or not?	1: Children are malnourished 0: Children are not malnourished

Source: Summary of the Authors

4.2. Effects of Remittances on the Skipped generation households

Regarding child education, whether or not a household receives remittances, the total amount of remittances, international remittances, domestic remittances and the proportion of remittances in income all affect the education of children in the same direction. Specifically, households receiving remittances are 1.26 times more likely to go to school and 1.34 times higher than that of households that do not receive remittances. In addition, when the total amount of remittances increases by 1%, the probability of children going to school and enrolling at the right age will increase by 1,108 and 1,112 respectively. For households receiving international remittances, the impact on children's education is not so obvious, but the probability of children going to school will be 1.4 times higher than that of children not attending school. In contrast, the amount of domestic remittances has a marked effect on the education of children. The probability of children going to school and enrolling will increase by 0.102 and 0.117 for those receiving domestic remittances. The proportion of remittances in income also increases the probability of children attending school 1,0069 times higher than children not attending school.

In terms of health, whether or not a household receives remittances does not have a significant effect on the child's health. However, the amount of remittances received by the household will contribute to a 0.0038% increase in the proportion of children participating in health insurance and a decrease in the probability of the child being malnourished. Similarly, when the

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number of international remittances increased by 1%, this figure increased to 0.0149% for the proportion of children enrolled in health insurance and child malnutrition was not significantly affected. Domestic remittances not only have a clear impact on children's education but also on children's health. Domestic remittances increased by 1%, the rate of children participating in health insurance increased by 0.004% and the probability of children suffering from malnutrition decreased. In addition, the proportion of remittances in household income and expenditure has a negative impact on the proportion of children participating in health insurance, but has a positive impact on the child malnutrition problem. The probability of children suffering from malnutrition decreases by 0,997 and 0.999 times as the remittance rate in income and expenditure increases.

Table 2: Regression results

Variables	(1) Whether children go to school or not?	(2) Children's school attendance at the right age	(3) The proportion of children participating in health insurance in the household	(4) Are children malnourished or not?
Does the household receive remittances?	1.265**	1.341***	-0.103	1.021
	(0.133)	(0.091)	(0.563)	(0.053)
The total value of remittances	1.108***	1.113***	0.381***	0.908***
	(0.034)	(0.022)	(0.143)	(0.012)
International remittances	1.407*	1.078	1.495**	1.004
	(0.291)	(0.124)	(0.649)	(0.08)
Internal remittances	1.102***	1.117***	0.405***	0.908***
	(0.035)	(0.022)	(0.649)	(0.012)
Ratio of remittances to household income	1.007*	0.999	-0.002	0.997**
	(0.0037)	(0.001)	(0.015)	(0.0011)
Ratio of remittances to household expenditures	1.00005	0.999	-0.002	0.999**
	(0.0008)	(0.0004)	(0.0032)	(0.0028)
Constant	0.0001	1.519	38.153**	0.578
Observations	17,400	17,400	17,400	17,400
Pseudo R2/R-squared overall	0.3145	0.0395	0.0896	0.0246
Standard errors in parentheses * p<0.1, ** p0<.05, *** p<0.01				

Source: Authors' Estimation from the VHLSS 2014, 2016, 2018

5. CONCLUSIONS

Significant increase in all countries, especially developing countries. In the world, there are many studies on the influence of this family structure system, however, the number of studies in Vietnam remains limited. Therefore, we consider the effect of remittances on child's education and child's health. By using VHLSS data 2014, 2016, 2018 with the support of STATA software, the results show that remittances have positive impacts on the health and education of children. The analysis of the difference between the effects of domestic and international remittances, has highlighted the greater importance of domestic remittances to child's education and child's health. Specifically, the rate of domestic remittances that contributes to the increase in school

enrollment and enrollment rates of children is 0.10 and 0.177, respectively. Similarly, transferring money domestically reduces the rate of malnourished children by 0.098. The study also shows that, in the skipped generation households, although the Ratio of remittances in total income and the Ratio of remittances on household's expenditures has impacts on children's health and education, they are not clear and significant. The findings in this study may suggest some policy implications for the issue of labor and employment in Vietnam, aiming to ensure a stable life, satisfying basic needs for people. people, especially vulnerable groups such as the generation of people left behind.

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Evaluation of the Vietnamese Consumers' Intention to Buy Chinese Garment Products

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ABSTRACTS: Chinese garment products were present throughout the domestic market of Vietnam, both in large cities and in rural areas, attracting the majority of low-income and low-end customers. The main objective of this study was to identify, evaluate, and to measure the attributes of the Vietnamese consumers' intention to buy Chinese garment products. The study was based on a field survey using a semi-structured questionnaire on a sample of 600 consumers in Hanoi city and Ho Chi Minh city. But, only 406 filled questionnaires were satisfactory and therefore included in the analysis. By using seceral statistical analytical tools, i.e. descriptive statistics, Cronbach's Alpha analysis, the study has identified and measured four (4) attributes of the Vietnamese consumers' intention to buy Chinese garment products. Based on the findings, some recommendations are given for the Vietnamese consumers' intention to buy Chinese garment products and domestic textile and garment firms in Vietnam.

KEYWORDS: Intention to buy products, Chinese garment products, marketing, consumers

JEL code: M31, M10

1. INTRODUCTION

Consumers must make everyday shopping decisions with overloaded information (Arnould et al. 2004). When the market expanded, information was increasing, consumers who lacked experience about products could rely on the image of the country which was the origin to evaluate the product, determine the confidence in the product. After that, they decided to buy or not (Gurhan-Canli & Maheswaran, 2000).

Over the years, garment products have significantly contributed to the economic and social development in Vietnam. According to the textile industry development plan of the Ministry of Industry and Trade, by 2020 the textile industry would become one of the key industries which were export-oriented and could meet the high demand of consumers, create more jobs for workers and be more attractive to foreign investors in Vietnam.

Marketing and distribution activities were weak stages of the textile industry in Vietnam. The difficulties in exporting were a good opportunity for domestic textile and garment firms in Vietnam to seriously recognize the domestic market. Vietnam ranked among the top 10 textile and garment exporting countries in the world, but had not yet been dominant in the domestic market. So far only about one third of Vietnamese textiles and garments were consumed domestically. Chinese garments products were present throughout the domestic market of Vietnam, both in large cities and in rural areas, attracting the majority of low-income and low-end customers (Thoa, 2012).

In the domestic market of Vietnam, domestic textile and garment firms in Vietnam also faced many competitors, of which Chinese garment products was a leading competitor. In order to be successful in the market, among other conditions, domestic textile and garment firms in Vietnam needed to understand their competitors and knew how customers had an attitude about competitors' products (Thong & Ha, 2018).

From the above reasons, it is necessary and meaningful to research the Vietnamese consumers' intention to buy Chinese garment products.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW
Theoretical background
The theory of marginal benefits by Marshall (1890) states that the purchasing decision was the result of rational and economically conscious procurement. However, this viewpoint does not fully explain the fluctuation of sales under the influence of internal and external factors (environment).

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The theory of rational behavior (TRA) was proposed by Fishbein and Ajzen (1975). The theory asserts that people often weighed results before performing different actions and they would choose to take actions that could lead to the results they wanted. Intention is the tool of continuation between attitudes and behavior. Behavior is defined by a person's intention to take an action in a given context. Intention is perceived as the representation of the willingness to take action.

Theory of planning behavioral (TPB) is an extended theory of rational behavior theory (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), this theory is created due to the limitation of the previous theory with the assumption that human behavior was purely due to moral control.

Literature review

Consumers' buying intention is one of the most important factors marketers often use in predicting future sales and to identify impactful policies to stimulate consumers' buying behavior. Fishbein and Ajzen (1975) have shown that, if you wanted to know whether an individual performed a certain behavior, it was necessary and simple to know whether that person intended to perform that behavior or not. According to Warshaw (1980), most theoretical models of consumers' behavior (eg, Engel et al., 1978; Howard, 1963) also showed that purchasing intention is a variable interference between consumer attitudes and buying behavior. According to Thong (2003), intention to act denoted the tendency of the individual to act towards the object.

Research on consumers' buying intention, Ajzen and Driver (1992); Pierre et al (2005); Schlosser et al. (2006) argued that intention had a broader meaning than behavior and would often have a positive effect on an individual's actions.

Mathur's study of the consumers' toothpaste branding behavior (1998) shows that consumer choice was related to comparing intentions and any possible choice scenarios involving comparison at many levels. Jin and Kang (2011) used the scale of Mathur (1998), which includes four indicators to measure the buying intention of Chinese consumers for an American-branded fashion product.

The TPB (Ajzen & Fishbein, 1980) is used to explain consumers' intention to buy domestic products such as safe food (Huong, 2014); intention to shop online (Thang, 2015), etc.

Inheriting the research results of previous studies, we choose the purchasing intention scale from Mathur's (1998) research results, because: (i) China and Vietnam are two countries that belong to Asia, there are similarities in intention to buy goods; (ii) Mathur (1998) referred to the buying intention of Chinese consumers for a foreign product.

3. METHODOLOGY

Research Subject: The subject of this research is of the Vietnamese consumers' intention to buy Chinese garment products.

Qualitative Research Methodology

This research used a qualitative research methodology based on some in-depth interviews with three (3) lecturers with extensive experiences in marketing in textile and garment firms in Vietnam of the National Economics University and University of Labor and Social Affairs. These are the two leading universities in Vietnam in training marketing and business administration. At the same time, three (3) experts were also interviewed who are marketing manager in textile and garment firms. The contents of the interviews focused on the subject of the Vietnamese consumers' intention to buy Chinese garment products' attributes.

Based on findings from a number of previous studies and findings from the interviews with those experts, this research has identified the Vietnamese consumers' intention to buy Chinese garment products (YDMH) in four (4) attributes as presented in Table 1 below.

Table 1. Attributes of the Vietnamese consumers' intention to buy Chinese garment products

Code	Scale	Sources
The Vietnamese consumers' intention to buy Chinese garment products (YDMH)		
YDMH1	Buying Chinese garment products is the best	Mathur (1998)
YDMH2	I will buy Chinese garments products whenever possible	Mathur (1998)
YDMH3	There is a possibility that I would buy Chinese garment products if they are available in the area where I live	Mathur (1998)
YDMH4	I would suggest people to buy Chinese garment products	Mathur (1998)

Quantitative Research Methodology

For the purpose of this research, a questionnaire was designed which consisted of four (4) variables with a 5-point Likert scale from 1: "Strongly disagree" to 5: "Strongly agree". The method of data collection was accomplished through the survey with a number of consumers in Hanoi city and Ho Chi Minh city. A total of 600 questionnaires were sent and received the filled

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questionnaires with full information for data entry and analysis from 406 respondents. The size of this sample was consistent with study of Hair et al. (1998) that the research sample must be at least 5 times the total number of indicators in the scales. The questionnaire of this study included four (4) indicators, and therefore, the minimum sample size to be achieved is 5 * 4 = 20 observations. Then, data from these 406 questionnaires was cleaned and coded with the necessary information in the questionnaires, inputted the analyzed by using SPSS22.

The steps of data analysis were as follows:

(i) Descriptive statistics,

(ii) Cronbach's Alpha to assess the reliability of the scale

4. RESEARCH RESULTS

4.1. Descriptive Statistics

Information of data collected is shown in Table 2. It shows that among the 406 respondents, about 23.2% were male while the remaining 312 (76.8%) were female. Of these, 245 of them (or 60.3%) were from 18 to 25 years old, 92 of them (or 22.7%) were from 26 to 35 years old, 68 of them (or 16.7%) were from 36 to 54 years old, and 0.3% of the participants were over 55 years old. Among the respondents, 55.7% of the participants have income less than 5 millions VND, 17.2% of the participants have income from 5 millions VND to 7.5 millions VND, 13.3% of the participants have income from 7.6 millions VND to 10.0 millions VND, 6.2% of the participants have income from 10.1 millions VND to 12.5 millions VND, 2.2% of the participants have income from 12.6 millions VND to 15.0 millions VND, 0.5% of the participants have income from 15.1 millions VND to 17.5 millions VND, 0.7% of the participants have income from 17.6 millions VND to 20.0 millions VND, and over 20 millions VND accounted for 4.2%.

Table 2: Respondents by gender, age and income

	Frequency	Percent	Cumulative Percent
Gender			
Male	94	23.2	23.2
Female	312	76.8	100.0
Age			
From 18 to 25 years old	245	60,3	60,3
From 26 to 35 years old	92	22.7	70.6
From 36 to 54 years old	68	16.7	99.8
Over 54 years old	1	0.3	100.0
Income			
less than 5 millions VND	226	55.7	55.7
From 5 millions VND to 7.5 millions VND	70	17.2	72.9
From 7.6 millions VND to 10 millions VND	54	13.3	86.2
From 10.1 millions VND to 12.5 millions VND	25	6.2	92.4
From 12.6 millions VND to 15 millions VND	9	2.2	94.6
From 15.1 millions VND to 17.5 millions VND	2	0.5	95.1
From 17.6 millions VND to 20 millions VND	3	0.7	95.8
Over 20 millions VND	17	4.2	100.0
Total	**406**	**100.0**	

Next, Table 3 indicates that the respondents agree with the dependent variables of "The Vietnamese consumers' intention to buy Chinese garment products" where four attributes. With the same statement, most consumers answered at a level of disagreement. The mean values of the variables observed in the Vietnamese consumers' intention to buy Chinese garment products are quite equal and well below the average. Therefore, the Vietnamese consumers' intention to buy Chinese garment

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products in the two big cities, Hanoi and Ho Chi Minh City, is lower than average.

Table 3. Descriptive Analysis of Attributes of the Vietnamese consumers' intention to buy Chinese garment products

	N	Minimum	Maximum	Mean	Std. Deviation
YDMH1	406	1.0	5.0	2.239	.7663
YDMH2	406	1.0	4.0	2.128	.7971
YDMH3	406	1.0	4.0	2.039	.7815
YDMH4	406	1.0	5.0	1.897	.8160
Valid N (listwise)	406			**2.076**	

4.2. Cronbach's Alpha

The Vietnamese consumers' intention to buy Chinese garment products has been measured by the Cronbach's Alpha. Results of testing Cronbach's alpha of attributes are presented in Table 4 below. The results also show that attributes of the dependent variables have Cronbach's Alpha coefficients that are greater than 0.6, and the correlation coefficients of all attributes are greater than 0.3. So, all the attributes of the dependent variables are statistically significant (Hair et al, 2010; Hoang & Chu, 2008).

Table 4. Results of Cronbach's Alpha Testing of Attributes

Cronbach's Alpha	N of Items
.875	4

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
YDMH1	6.064	4.682	.606	.887
YDMH2	6.175	3.967	.843	.795
YDMH3	6.264	4.076	.821	.805
YDMH4	6.406	4.331	.672	.865

5. DISCUSSION AND IMPLICATIONS

Economic integration is an inevitable trend for the Vietnamese economy. Accordingly, China - Vietnam economic relations are also developing rapidly. Trade deficit from China accounted for almost all of Vietnam's trade deficit (Bui, 2014). However, the quality control of imported goods was currently too lax, causing many poor quality products to be massively imported into Vietnam, causing damage to consumers (Mien, 2017).

In the segment of low and medium - priced goods, domestic manufacturers are being dominated by sources of imported goods into the Vietnamese market, mainly by quota, especially Chinese garment products. It is increasingly difficult for domestic firms in this segment to compete with products imported from another home country. Therefore, in the low and medium price segment, garment suppliers in Hanoi city and Ho Chi Minh city need to ensure more product quality, variety of types and designs, more competitive prices than Chinese garment products, and at the same time standardize the retail distribution system so that consumers can easily buy products when they need.

Research results show that the Vietnamese consumers' intention to buy Chinese garment products is below average. It proves that consumers have quite a high intention to buy garment products from domestic textile and garment firms in Vietnam or from firms from other countries around the world such as Japan, European countries, etc. In order to promote purchasing intentions of garment products from domestic textile and garment firms in Vietnam, domestic textile and garment firms in Vietnam need to, such as.

(i) Invest in advanced technology to produce high quality products, improve production efficiency, diversify products to serve the diverse needs of consumers; pay attention to developing unique items in order to have a position in the minds of customers;

(ii) Ensure stability and improve skills for all types of craftsmen, train a team of professional fashion designers, with professional competencies to grasp fashion trends in the country and abroad through appropriate recruitment, training and motivational policies; combine short-term training with long-term training, combine formal training with on-the-job training, combine domestic training with sending staff abroad for training;

(iii) Find solutions to reduce product costs, increase price competitiveness;

(iv) Exploit available distribution channels such as markets, supermarkets; persuade to display products in fashion stores through preferential policies and focus on wholesale channels.

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(v) Enterprises need to apply information technology to the design and product samples such as applying software programs for fashion design to help improve the efficiency of design, contributing to productivity, creating more patterns and minimizing design errors (Nhung et al. 2016).

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Treatment Methods for Different Variations Syndrome Mirizzi

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ABSTRACT: The number of patients with complicated forms of cholelithiasis of cholelithiasis is progressively growing. One of the complications of gallbladder disease is Mirizzi syndrome (SM). The reason for the development of which is the spread of the inflammatory - destructive process from the gallbladder to the bile ducts with the formation of pressure ulcers in the common bile duct, as a result of which the formation of a cholecystobiliary fistula occurs, through which stones from the gallbladder enter the main bile ducts

The analysis of the surgical treatment of patients with cholelithiasis (GSD) treated in the UH NJSC "MUS" was carried out. There were 3842 patients in total, Patients were in the period from January 2012. to July 2018 The analysis revealed that of all these patients with gallstones, Mirizzi SM type III and IV syndrome was diagnosed in 25 (0.7%). In 14 (56%) patients with type III SM and type IV SM, 11 (44%). The main group consisted of 10 (40%) patients and 15 (60%) patients included in the control group. The main group completed:

1) In type III SM (only 4 (40%) patients). One patient underwent hepaticojejunostomy according to the clinic method (2017/0423.1). In 3 patients, cholecystohepaticocholedochoplasty was performed with U-shaped interrupted sutures on the drainage according to Vishnevsky (2017 / 0980.1);

2) In type IV SM (a total of 6 (60%) patients). 4 patients underwent hepaticojejunostomy according to the clinic method (2017/0423.1). In 2 patients, cholecystohepaticocholedochoplasty was performed with U-shaped interrupted sutures on the drainage according to Vishnevsky (2017 / 0980.1).

The developed and tested methods of surgical treatment of Mirizzi syndrome of types III and IV make it possible to improve the immediate and long-term results of surgical treatment of patients with this pathology.

These methods of surgical treatment allow preserving the physiology of the bile outflow without postoperative complications typical for traditional hepaticojejunostomy (incompetence of the anastomotic sutures, stricture of hepaticojejunostomy).

KEYWORDS: Complications of cholecystectomy, Mirizzi syndrome, acute calculous cholecystitis, acute calculous cholecystitis and overweight, surgical treatment, cholecystectomy by mini-access, hepatic choledochojejunostomy, cholecystohepatic choledochoplasty.

INTRODUCTION

The number of patients with complicated forms of cholelithiasis is progressively growing [1,2,10]. One of the complications of gallstone disease is Mirizzi syndrome (SM). The reason for the development of which is the spread of the inflammatory - destructive process from the gallbladder to the bile ducts with the formation of pressure ulcers in the common bile duct, resulting in the formation of a cholecystobiliary fistula, through which stones from the gallbladder enter the main bile ducts [1,3,4,12]. Among patients who underwent cholecystectomy, Mirizzi syndrome occurs in 1–5% of cases [5]. Before surgery, SM is detected only in 12.5–22% of cases [6]. In honor of the Argentine surgeon Pablo Mirizzi was named "Mirizzi Syndrome" was named. This surgeon in 1948, during intraoperative cholangiography, did not find stones in the bile duct in the presence of its contracture in combination with bile stasis. Of all the proposed, the most commonly used classification proposed by A. Csendes (1989):

1) in type I - from the neck of the gallbladder or cystic duct, calculus, compresses the common hepatic duct;

2) in type II - a cholecysto-choledocheal fistula is formed, capturing less than 1/3 of the circumference of the common hepatic duct;

3) in type III - a cholecysto-choledocheal fistula is formed, extending to 2/3 of the circumference of the common hepatic duct;

4) in type IV - there is a cholecysto-choledocheal fistula with wall destruction along the entire circumference of the common hepatic duct.

For the diagnosis of SM, ultrasound of the hepatobiliary region is used as a screening method of research. Ultrasound is the most accessible and safest non-invasive diagnostic method, however, it is possible to suspect SM using ultrasound only in 4 - 46% of cases [7]. According to many authors, endoscopic retrograde cholangiopancreatography (ERCP) is considered a more effective method of verification. In relation to this pathology, ERCP has a sensitivity equal to 62-75% [8,9,11]. Among the disadvantages of this method, it is necessary to note the risk of injury and a high risk of complications, such as pancreatitis, mechanical damage to the biliary tract and duodenum, bleeding. Recently, magnetic resonance cholangiopancreatography (MRCP) is gaining popularity, since it is a highly informative, but at the same time, non-invasive diagnostic method.

Objective: To improve the results of surgical treatment in various types of Mirizzi Syndrome III and IV.

RESEARCH METHODS

We have analyzed the surgical treatment of patients with cholelithiasis (GSD) treated in the UG NAO "MUS". There were 3842 patients in total, Patients were in the period from January 2012. to July 2018 The analysis revealed that of all these patients with gallstones, Mirizzi SM type III and IV syndrome was diagnosed in 25 (0.7%). In 14 (56%) patients with type III CM and type IV CM, 11 (44%).

The ratio of men and women was 6 (24%) and 19 (76%), respectively. The age of the patients ranged from 41 to 83 years, with an average of 62 years. Of the constitutional characteristics, 14 (56%) patients were overweight: 7- grade I obesity, 5- grade II obesity, 2- grade III obesity.

Patients with SM were admitted with a clinical picture of acute calculous cholecystitis and a picture of obstructive jaundice. There were 3 (12%) patients with mild jaundice, 8 (32%) with moderate jaundice, 14 (56%) patients with severe jaundice.

All patients were operated on. From online accesses:

1) upper midline laparotomy in 5 (20%) patients;

2) from mini - access by mini - assistant apparatus "Liga - 7" - in 4 (16%);

3) a universal retractor developed in the clinic (RK patent No. 90060) - in 9 (36%);

4) mini-access using the modernized "Universal retractor for patients with overweight" - 7 (28%) (Figure 1-2).

The patients were divided into 2 groups depending on the method of performing the operation.

RESULTS

15 (60%) patients were included in the control group. He underwent intraoperative cholangiography followed by cholecystectomy. Type III SM was diagnosed in 10 (66.7%) patients. In 4 (40%) of them, the operation was completed by uncoupling the cholecysto-duodenal fistula. These patients underwent removal of calculus from the common bile duct and drainage of the common bile duct through a fistulous defect according to Keru. In 6 (60%) patients underwent hepaticojejunostomy with an interintestinal anastomosis according to Brown and a plug according to Shalimov. Patients with type IV CM 5 (33.3%) underwent hepaticojejunostomy on an isolated loop of the jejunum according to Roux and drainage according to Felker. In 3 patients (60%), hepaticojejunostomy was performed on a frame drainage. With inter-intestinal anastomosis according to Brown, plug according to Shalimov in 2 (40%) patients. Of these, 9 (60%) patients were hospitalized without acute clinical symptoms in a planned manner.

The main group consisted of 10 (40%) patients, these patients underwent cholecystectomy, intraoperative cholangiography (RK patent No. 90500), fibrocholedochoscopy using a conductor developed in the clinic through the fistulous opening. These patients had acute symptoms of cholecystitis and were hospitalized on an emergency basis. This group has completed: 1) In type III CM (only 4 (40%) patients). One patient underwent hepaticojejunostomy according to the clinic method (2017/0423.1). In 3 patients, cholecystohepaticocholedochoplasty was performed with U-shaped interrupted sutures on the drainage according to Vishnevsky (2017 / 0980.1); 2) In type IV SM (a total of 6 (60%) patients). 4 patients underwent hepaticojejunostomy according

to the clinic method (2017/0423.1). In 2 patients, cholecystohepaticocholedochoplasty was performed with U-shaped interrupted sutures on the drainage according to Vishnevsky (2017 / 0980.1).

Complications were observed in the control group - 15 patients who were operated on with the traditional laparotomic approach: postoperative wound seroma - in 2 (13.3%), bile leakage (after hepaticojejunostomy with interintestinal anastomosis according to Brown) - in 1 (6.7%) patient. 6 months after the removal of the T-shaped drainage according to Keruu, one patient developed a hepaticoholedochus stricture, which a month later underwent hepaticojejunostomy according to the clinic method. 2 (13.3%) patients died. In one case, the cause of death was hepatic-renal failure against a background of severe intoxication and purulent cholangitis (on the 2nd day after the operation), and in the second case, the disseminated intravascular coagulation syndrome (on the 2nd day after the operation).
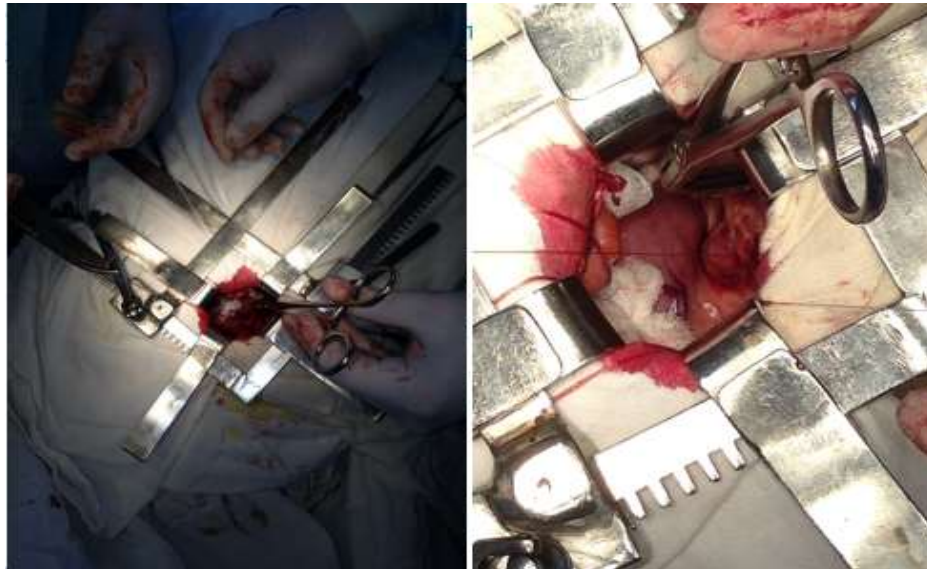
Figure 1-2. Universal retractor for overweight and obese patients, type of surgery

In the main group, in 6 patients who underwent cholecystohepaticocholedochoplasty, postoperative fistulocholangiography was performed on the 7th day, during which the contrast freely entered the duodenum, there was no suture leakage and no narrowing of the anastomosis. The Vishnevsky drainage tube from the common bile duct was removed on the 9th - 12th day. In the main group of patients who underwent hepaticojejunoanastomosis according to the clinic method, there were no postoperative complications or deaths.

We have filed an application for the Eurasian patent "Universal retractor for overweight and obese patients" EAPO registration number No.201900402 dated 10.07.2019 (Figure 1-2).

Overweight patients with cholecystoduodenal fistula underwent surgical treatment with the use of the "Universal retractor for overweight patients" developed by us and the new "Method of dissociation of the cholecystoduodenal fistula followed by cholecystectomy in obese patients from the mini-access." An application was filed for ROSSPATENT "Method of dissociation of the cholecystoduodenal fistula followed by cholecystectomy in obese patients from the mini-access" registration number "Federal Institute of Industrial Property" (FIPS) of the Russian Federation No. 2019107425/20 (014452) dated 03/14/2019.

DISCUSSION

Due to the many difficult situations and emerging problems arising in the process of surgical treatment, forces the surgical community to discuss in various surgical forums. This raises a lot of questions and requires the development of ways to eliminate them. And we offer the results of our research to solve the problem of this disease. The method of elimination of the wall defect of hepaticoholedochus developed by us can be one of the methods of choice for surgical treatment of patients with cholelithiasis complicated by Mirizzi's type III and IV syndrome.

There are no conflicts of interest in this study.

CONCLUSIONS

1) The developed and tested methods of surgical treatment of Mirizzi syndrome of types III and IV can improve the immediate and long-term results of surgical treatment of patients with this pathology.

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2) These methods of surgical treatment allow maintaining the physiology of the bile outflow without postoperative complications characteristic of traditional hepaticojejunostomy (incompetence of the anastomotic sutures, stricture of hepaticojejunostomy).

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Results of Surgical Treatment of Liver Echinococcosis in Our Practice

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ABSTRACT: Results of surgical treatment of 45 patients with liver echinococcosis, operated on in the clinic of the University Hospital Non-profit joint-stock company "Semey Medical University" (UG NAO "MUS") from January 2017 to January 2021. Of these, there were 28 men (62.2%), women - 17 (37.7%). The average age was 47.6 ± 3.2 years.

Depending on the characteristics of the clinical situation, 2 variants of treatment tactics were performed for echinococcal cyst of the liver: in 37 (82.2%) cases by the traditional method of echinococcectomy, in 8 (17.8%) cases, pericystectomy. There were no lethal outcomes. All patients in satisfactory condition were discharged for outpatient treatment.

KEYWORDS: echinococcosis, diagnosis, treatment echinococcectomy, pericystectomy.

INTRODUCTION

Despite significant advances in the surgical treatment of liver echinococcosis, many of its aspects are far from definitive. Liver damage in echinococcosis ranges from 44 to 84% of cases among organ localization [5, 11].

Currently, the main method of treatment of liver echinococcosis remains surgical [3]. Today, the main disadvantages of surgical treatment are the high incidence of postoperative complications - up to 57%, the formation of purulent and biliary fistulas - up to 31%, recurrences of the disease - from 7 to 14%, and deaths - up to 4.3% [1, 8]. As well as adverse cosmetic outcomes: long-term healing wounds, rough postoperative scars, fistulas, granulomas, postoperative hernias.

In the search for ways to improve the results of surgical treatment in recent years, such radical operations as liver resection and pericystectomy have been widely used. At the same time, many researchers point to the difficulty of performing radical surgery in the localization of cysts in the zones of the caval gates of the liver [2, 7, 13]. The main surgical intervention for liver echinococcosis is echinococcectomy [9, 10].

In this regard, the majority of surgeons in endemic regions perform open echinococcectomy with antiparasitic treatment of the residual cavity using one of the methods and various methods of eliminating the residual cavity [6, 14]. The currently available physical methods for treating the residual cavity do not provide a uniform effect over the area and depth, have the potential to damage the adjacent tubular structures of the liver and require specialized expensive equipment and cannot be used in most surgical departments.

The use of chemical compositions of alcohol, iodine, hypertonic solution and glycerin does not provide high-quality uniform treatment of the entire surface of the cyst, pockets, which is the reason for the recurrence of the disease [4].

In addition, today, in the case of a complicated or recurrent cyst, localization of the cyst in hard-to-reach parts of the liver, as well as with other contraindications to puncture treatment of cysts and laparoscopic echinococcectomy, or their ineffectiveness, there is no alternative method of minimally invasive treatment, which forces most surgeons to perform wide laparotomy [12].

Currently, all methods of surgery performed with liver echinococcosis have both advantages and disadvantages. Until now, in the literature, we have not come across proven advantages of this or that access for liver echinococcosis, depending on the peculiarities of the localization of the cyst. In addition, effective surgical treatment is hindered by a number of insufficiently studied aspects, problems of choosing an access and a method of operation, determining the nature and volume of an operation, a method of treating the cyst wall, the need for drainage or a method to eliminate the residual cavity, prevention and treatment of internal biliary fistulas.

Purpose of the study: To evaluate the results of echinococcectomy in patients with liver echinococcosis.

Results of Surgical Treatment of Liver Echinococcosis in Our Practice

MATERIALS AND METHODS

Analyzed the results of surgical treatment of 45 patients with liver echinococcosis, operated in the clinic of the UG NAO "MUS" from January 2018 to January 2021. Of these, there were 28 men (62.2%), women - 17 (37.7%). The age of the patients varied from 18 to 69 years. The average age was 47.6 ± 3.2 years (Me = 45; Q1 = 18; Q = 65). The frequency of occurrence of echinococcosis liver cysts, as we found out, among the rural population is - in 31 (68.9%), among the urban - in 14 (31.1%) patients.

Echinococcosis of the liver was established for the first time in 36 (80%) patients out of 45. With a relapse of the disease, 9 (20%) patients were hospitalized. In 17 (37.8%) patients, parasitic cysts were single, in 28 (62.2%) - multiple. The overwhelming majority of patients included in this study were patients of working age, operated in a planned manner. Depending on the characteristics of the clinical situation, 2 variants of treatment tactics were performed for echinococcal cyst of the liver: in 37 (82.2%) cases by the traditional method of echinococcectomy, in 8 (17.8%) cases of pericystectomy.

Diagnosis of liver echinococcosis often included standard studies, and in some cases required an individual approach in terms of additional studies. All patients underwent complex clinical, laboratory and instrumental examinations of the abdominal organs, including ultrasound, computed tomography (CT), multispiral computed tomography (MSCT), and magnetic resonance imaging (MRI).

Intraoperative antiparasitic treatment of the residual cavity also plays a role. In our clinic (UG NAO "MUS") the following methods were used: 10% NaCl solution (n = 20, 54.1%), 1% formalin solution (n = 7, 29.7%), 5% povidone solution (n = 10, 27%), with an exposure of 2 to 5 minutes.

RESULTS

The diagnosis was confirmed by serological (the detection of antibodies to echinococcus in the enzyme immunoassay is 86.6%, eosinophilia was detected in 60% of the blood), according to ultrasound, the detection of echinococcosis is 95.5%. According to the examination, cysts were found in all parts of the liver. Most often, echinococcal cysts were localized in the right lobe of the liver (Sg V, VI, VII, VIII): in 82.2% of cases. In our study, three patients (6.7%) had a relapse of hepatic echinococcosis.

Postoperative complications were observed in 4 patients: postoperative wound suppuration - 1 (2.2%), subphrenic abscess - 1

(2.2%), bile leakage - 2 (4.4%). The average duration of a patient's stay in the hospital was 10.5 days, with a complicated course - 15.3 +1.5 k / days.

The frequency of occurrence among 68.8% of the rural population: Urdzhar district - 11 (35.5%), Tarbagatai district - 1 (3.2%), Abay district - 5 (16.1%), Ayaguz district - 5 (16, 1%), Borodulikha district - 4 (12.9%), Zaisan district - 1 (3.2%), Kokpekty district - 2 (6.5%), Kalbatau rural district - in 2 (6.5%) patients ... There were no lethal outcomes. All patients in satisfactory condition were discharged for outpatient treatment.

After surgery, all the patients under observation were prescribed antiparasitic therapy with albendazole in order to prevent the recurrence of the disease. Three 28-day courses of antiparasitic therapy were used with a break of 14 days. Dispensary observation was carried out for three years. The criterion for removing patients from dispensary registration was the absence of clinical signs of echinococcosis, confirmed by instrumental and immunological examination methods.

CONCLUSIONS

Thus, echinococcosis of the liver is a common disease in the East Kazakhstan region with a predominant registration among the district residents - Urdzhar 35.5% of the East Kazakhstan region. After intraoperative antiparasitic treatment of the residual cavity with povidone solution, in our study, in three patients (6.7%), a relapse of hepatic echinococcus was noted. Patients with complicated liver echinococcosis should be operated on in a specialized institution with modern diagnostic and therapeutic equipment, highly qualified specialists.

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