

Investigating the Impact of Accounting Information System (AIS) on the Organizational Performance: Government and Non-government Banks of Bangladesh



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ABSTRACT: This study focuses on finding out the impact of the accounting information system (AIS) on the performance of government and non-government banks in Bangladesh. For this purpose data were collected from 23 government and non-government banks by providing a questionnaire to test the determined hypotheses and the total number of respondents in this study was 103. Regression analysis was conducted to find out the impact of AIS on the performance of banks by considering AIS as an independent variable and performance as a dependent variable by using Excel 2016. The findings of the study reveal that AIS has a significant impact on the performance of government and non-government banks in Bangladesh. However, the impact of AIS on the performance of government banks is higher than the impact of AIS on the performance of non-government banks in Bangladesh. Based on the extensive literature review and findings of the study it is evident and recommended that to get long-term success through the implementation of AIS banks should focus on improving their effectiveness and efficiency, and provide proper training facilities to the employees to enlarge their knowledge and boost their work process. The recommendatory measures are particularly more important for non-government banks because the extent of the impact of AIS on their performance is lower than that of government banks.

KEYWORDS: accounting information system (AIS), performance, government banks, non-government banks, regression.

INTRODUCTION

According to the American Accounting Association (AAA) accounting is considered as a process to identify, measure, and communicate economic information to permit informed judgments and decisions by the user of the information (Adam, 2021). For making a correct and rational decision under uncertainty, appropriate information is needed by management at the right time. For every firm, accounting plays an important role in making rational information correct and easier. Nowadays the business world is changing rapidly. As a result, organizations all over the world are depending on accounting information systems (AIS) for keeping day-to-day operational records and to manage the information for further disclosure to stakeholders. An accounting information system (AIS) can be defined as a system of collecting, storing, and processing financial and accounting data that are used to make decisions by different users. The accounting information system can be compared to a computer-based method for tracking accounting activity linked with the resources of information technology (*Accounting Information System - Wikipedia*, 2017). The AIS in every organization may not be identical, it may differ based on the nature and size of the business, the nature of transactions of the firm, the amount of data, and the demand for information by management and others. The functions of AIS include data collection, data maintenance, data management, data control, and information generation and these functions are interrelated (Das et al., 2008). At present, it is considered a challenge to successfully adapt the accounting systems that are used in developed countries (Shareia, 2020). However, Internal control is considered one of the major tools of AIS which helps to limit the financial risk of the business organizations. The manual processing of data is eliminated with the help of AIS. AIS can easily retrieve data from a centralized database and can present a meaningful summary to both internal and external users with complete accuracy. Nevertheless, the system can help in the timely reporting of financial information and helps users of the information to act quickly and effectively based on the result of the report. Now data are prepared to provide meaningful reports by the AIS system with only one click. But till now computerized AIS is not adopted by organizations in most undeveloped and developing countries. To become successful, for every organization accounting information system plays an important role. To support the functions and

Investigating the Impact of Accounting Information System (AIS) on the Organizational Performance: Government and Non-government Banks of Bangladesh

for making effective decisions, it provides management of all levels, past, present, and future information needed for decision making. Successful AIS helps organizations to achieve their goals and objectives while unsuccessful ones can be a major reason for the failure of the organizations. Lack of a proper documentation system, lack of proper training facility, and high turnover rate of organizations' staff are considered major challenges for the implementation of effective AIS (Akhter, 2022).

STUDY OBJECTIVES

The main objective of this study is to find out the impact of the accounting information system on the performance of government and non-government banks in Bangladesh. However, the study will also help to compare the degree of impact caused by AIS on the performance of government and non-government banks.

DATA SOURCE AND METHODOLOGY

For finding out the impact of the accounting information system on the performance of government and non-government banks of Bangladesh, primary data were collected from 103 respondents through the extensive distribution of a set of questionnaires to 23 government and non-government banks of Bangladesh. The research site of this study is the Sylhet division of Bangladesh. Microsoft Excel 2016 has also been used for analyzing collected data and for constructing all necessary tables.

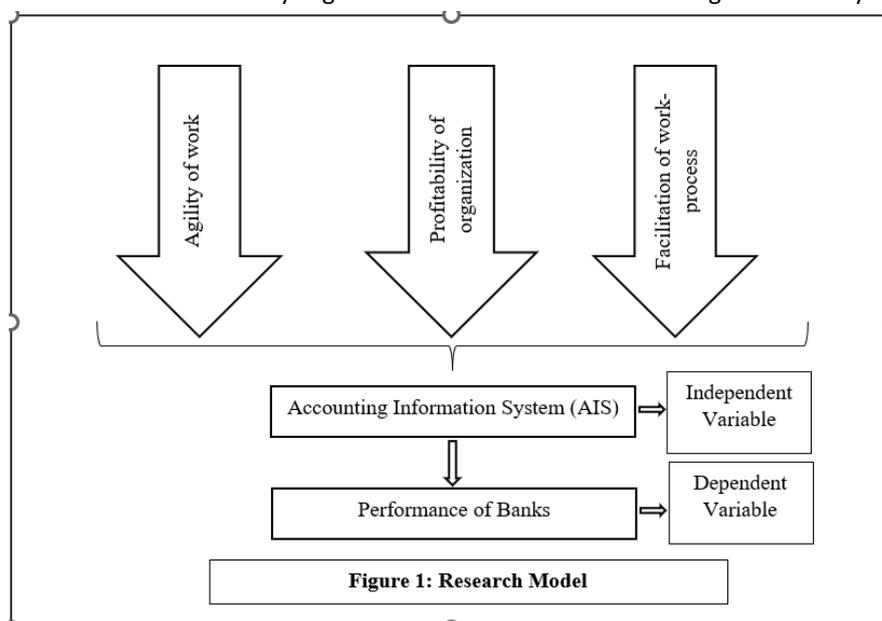


Figure 1. highlights the model of the study. Accounting information system (AIS) is taken as an independent variable and performance as a dependent variable. The independent and dependent variables were rated on a five-point Likert scale with responses ranging from strongly disagree to strongly agree.

HYPOTHESES OF THE STUDY

H o1: There is no significant impact of the accounting information system on the performance of government banks in Bangladesh.

H p1: There is a significant impact of the accounting information system on the performance of government banks in Bangladesh.

H o2: There is no significant impact of the accounting information system on the performance of non-government banks in Bangladesh.

H p2: There is a significant impact of the accounting information system on the performance of non-government banks in Bangladesh.

LITERATURE REVIEW

At first in 1966, the American Institute of Certified Public Accountants (AIPCA), considered accounting as an information system and to be more accurate, accounting as the practice of general theories of information in the area of effective economic activities and form a major segment of information that is presented quantitatively (AL-BAWAB, 2017). Several studies have been conducted to identify the impact of AIS on organizational performance. Banks and organizations use AIS because for the effective decision-making process and for adequate information which can be derived from AIS if the system runs efficiently (Akhter, 2022). Although, AIS has a positive significant effect on the performance management of banks and AIS should be considered as a critical fact of

Investigating the Impact of Accounting Information System (AIS) on the Organizational Performance: Government and Non-government Banks of Bangladesh

business objectives of the organization for the growth in performance management over a long period (Khalid et al., 2021). Khan et al., (2021) in their study suggests that the financial performance of banks is positively and significantly affected by strategic management accounting. However, private commercial banks are using AIS for dealing with data and for information management and it is recommended to improve their overall AIS system because most private commercial banks have unstructured AIS (Sarkar, 2020). By providing data and information about the interest rate and competitiveness, assisting employees with development and achieving profitability, and providing accurate information to detect threats AIS is helping and contributing to the banking business (Hakim, 2019). AIS helps to improve the competitive advantage of banks by providing timely access to information provided by the system which helps to differentiate one bank from another (Kanakriyah, 2017). According to Afroz (2016), in the banking sector of Bangladesh, monitoring and decision-making, core operational activities, detecting variation in change, matching regulatory compliance, loan disbursement, determining the cost of service, optimum utilization of resources and internal control are significantly affected by the application and uses of AIS, but the information is not handled properly. AIS is considered an important factor for the betterment of organizational performance by collecting, storing, and processing financial information and accounting information for evaluation and their impacts on the betterment of the decision-making process, accounting information quality, evaluation of performance, internal controls, and facilitating company's transactions (Soudani, 2012). For decision-making, combining accounting information with ERP will increase the relevance of accounting information and reduces uncertainty for decision-makers (Alzoubi, 2011). However, AIS improves the accounting functions of organizations and adds information value (Muhamad Sori, 2009). Finally, from the overall literature review, it is evident that except Akhter (2022) there is no such study has been conducted yet to find out the impact of the Accounting Information System (AIS) on the overall performance of the banks of Bangladesh. But this study did not focus separately on the government and non-government of Bangladesh.

DATA ANALYSIS

Hypothesis 1

H o1: There is no significant impact of the accounting information system on the performance of government banks in Bangladesh.

H p1: There is a significant impact of the accounting information system on the performance of government banks in Bangladesh.

[Dependent Variable: Performance of banks]

Table 1. Multiple Regression Government Banks of Bangladesh

| Model 1 | R | R Square | Adjusted R Square | Standard Error | ANOVA (Model Fitness) |
|-----------|-------------------------------|------------------------|-------------------|----------------|---------------------------------|
| | 0.859 | 0.738 | 0.720 | 0.246 | F Value: 42.18; P Value: 0.000* |
| | Variables | Regression Coefficient | T Value | P Value | |
| X1 | Agility of work | 0.510 | 2.289 | 0.027 | |
| X2 | Profitability of organization | 0.648 | 2.888 | 0.006 | |
| X3 | Facilitation of work-process | 0.398 | 1.955 | 0.057 | |

Source: Excel 2016

*Significant at 5% level

Table 1 shows the result of a multiple regression analysis of government banks in Bangladesh. Here, the R-square value is equal to 0.738. It means 73.8% of the variation in the performance of government banks in Bangladesh is explained by different independent variables, such as agility of work, profitability of organization, and facilitation of work-process, and the rest of the variation ($1-R^2$) is due to other variables not included in the analysis. ANOVA (Model of Fitness) illustrates the value of F is 42.18 and the value of P is 0.000. It highlights that all variables exactly fulfilled the criteria of the model of accuracy as $P < 0.05$. However, the value of the regression coefficient of the independent variable agility of work is 0.510, which means that one unit change in the agility of work results in 0.510 units change in performance. Besides, the regression coefficient of profitability of organization and facilitation of work-process is 0.648 and 0.398 respectively, which means one unit change in the profitability of organization and facilitation of work-process results in 0.648 and 0.398 unit change in the performance of government banks in Bangladesh. Each regression coefficient of the variables in the table is statistically significant at a confidence level of 95%. So, the null hypothesis

Investigating the Impact of Accounting Information System (AIS) on the Organizational Performance: Government and Non-government Banks of Bangladesh

is rejected, and it is clear that there is a significant impact of the accounting information system on the performance of the government banks in Bangladesh.

Hypothesis 2

H o2: There is no significant impact of the accounting information system on the performance of non-government banks in Bangladesh.

H p2: There is a significant impact of the accounting information system on the performance of non-government banks in Bangladesh.

[Dependent Variable: Performance]

Table 2. Multiple Regression Non-government Banks of Bangladesh

| Model 2 | R | R Square | Adjusted R Square | Standard Error | ANOVA (Model Fitness) |
|---------|-------------------------------|------------------------|-------------------|----------------|---------------------------------|
| | 0.461 | 0.212 | 0.165 | 0.288 | F Value: 4.488; P Value: 0.007* |
| | Variables | Regression Coefficient | T Value | P Value | |
| X1 | Agility of work | 0.178 | 0.985 | 0.329 | |
| X2 | Profitability of organization | 0.279 | 1.987 | 0.052 | |
| X3 | Facilitation of work-process | 0.005 | 0.034 | 0.973 | |

Source: Excel 2016

*Significant at 5% level

Table 2 shows the result of multiple regression analysis of non-government banks in Bangladesh. Here, the R-square value is equal to 0.212. Which illustrates 21.2% of the variation in the performance of non-government banks in Bangladesh is explained by different independent variables, such as agility of work, profitability of organization, and facilitation of work-process, and the rest of the variation (1-R²) is due to other variables not included in the analysis. ANOVA (Model of Fitness) illustrates the value of F is 4.488 and the value of P is 0.007. It highlights that all variables exactly fulfilled the criteria of the model of accuracy as P<0.05. However, the value of the regression coefficient of the independent variable agility of work is 0.178, which means that one unit change in the agility of work results in 0.178 units change in performance. Besides, the regression coefficient of profitability of organization and facilitation of work-process is 0.279 and 0.005 respectively, which means one unit change in profitability of organization and facilitation of work-process results in 0.279 and 0.005 unit change in performance of non-government banks. Each regression coefficient of the variables in the table is statistically significant at a confidence level of 95%. So, the null hypothesis is rejected, and it is clear that there is a significant impact of the accounting information system on the performance of non-government banks in Bangladesh.

FINDINGS

The data analysis section reveals that there is a significant impact of the accounting information system on the performance of government and non-government banks in Bangladesh.

The findings are as follows:

Table 1. Summary of Findings

| No. | Hypotheses | Results |
|------|---|----------|
| H o1 | There is no significant impact of the accounting information system on the performance of the government banks in Bangladesh. | Rejected |
| H o2 | There is no significant impact of the accounting information system on the performance of non-government banks in Bangladesh. | Rejected |

However, by comparing the regression analysis of government and non-government banks it is clear that the performance of government banks is influenced by AIS more than the non-government banks.

RECOMMENDATIONS

The followings are the recommendatory measures that should be taken into consideration to grasp the benefits of the accounting information system:

Investigating the Impact of Accounting Information System (AIS) on the Organizational Performance: Government and Non-government Banks of Bangladesh

- To improve efficiency and effectiveness, and to get long-term success for the banks' an AIS system is required to be implemented throughout the organizational context.
- The findings illustrate the fact that the degree of impact on the performance of non-government is less than the government banks. As so, the non-government banks of Bangladesh should focus on this fact by implementing proper AIS facilities across the organizational context.
- Furthermore, a proper training facility needs to be provided to the employees of the banks for enlarging their knowledge about AIS and to make them comfortable with adapting to the AIS system easily which is significantly important for non-government banks.

CONCLUSION

In the banking sector, information is considered a valuable asset. Accounting information system helps to track, record, analyze and present information to interested parties which helps to take decisions for both internal and external purpose. The impact of AIS on the performance of both government and non-government banks in Bangladesh is significant. However, the results are statistically relevant but this may not be in a real sense. Generalization of the findings of the study may become biased depending on the environment, culture, and working methods of different regions or countries. There is no doubt that AIS has a significant impact on the performance of every organization, but the frequency of using modern technologies and methods for accounting purposes is not updated enough in Bangladesh to cope with the global scenario. It is quite easier to conclude with the statement that by improving the agility of work, profitability of the organization, and facilitation of work-process, AIS impacts the performance of banks. But no matter what, banks should ensure a sound organizational structure to improve the knowledge and practical insights of their employees to improve the efficiency and effectiveness of the performance.

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Investigating the Impact of Accounting Information System (AIS) on the Organizational Performance: Government and Non-government Banks of Bangladesh

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