Evaluation of Outputs of Automated AIS for Decision Making: A Study on Commercial Banks of Bangladesh

Faruk Sarker[1], Saurav Chandra Talukder[2]

[1]*Lecturer in Accounting, Bangladesh University of Business and Technology (BUBT), Mirpur,Dhaka-1216 Bangladesh.*

[2]*Lecturer, Department of Accounting and Information systems (AIS), Jessore University of science and technology (JUST), Jessore-7408, Bangladesh.*

ABSTRACT: *Banking Sector plays a key role in investment, growth, and in the development of different industries around the world. Because accounting information systems (AIS) play a key role in determining the degree of success, and affect the competitive position of commercial banks in a world that characterized with globalization, these systems need more investigation. The study investigates whether the outputs of the automated accounting information systems of the Commercial Banks of Bangladesh are understandable, relevant, reliable ,and comparable, in order to satisfy the requirements of decision makers in this group of banks. A questionnaire was developed and self-administered for a selected convenient sample of decision makers from the Commercial Banks of Bangladesh in order to collect the required data. T-test and a selected group of descriptive statistics were used to analyze the collected data and to test the hypothesis of the study. it is found that the outputs of the automated AIS of the Commercial Banks of Bangladesh are understandable, relevant, reliable, and comparable, so these outputs are useful for the purposes of the decision making process.*

Key Words: Commercial bank, AIS, Decision making, Relevance, and Bangladesh.

I. INTRODUCTION

Information technology facilitates the work of different types of business organizations. The role that information technology plays in business organizations enhanced during the recent few years, especially in commercial banks, because of the increased number of tasks that these banks have to perform. Information technology enables managers of commercial banks to record, save, process, analyze, and retrieve information effectively. Because information is one of the most important type of inputs to the decision making process, the availability of an appropriate information system becomes necessary in any organization, especially in commercial banks. These systems should be able to satisfy the needs and the requirements of decision makers in commercial banks. To be effective and competitive, these banks should adopt a developed information technology. The availability of a developed information technology maintains the competitive position of commercial banks, and enables these banks to develop its current competitive position. As decision makers, managers of commercial banks need accounting information to take good, accurate, and timely decisions. Information can be used in different types of banks in making planning, organizing, directing, controlling and other decisions. These decisions are normally taken to improve the level of work efficiency and performance. Improving the level of performance is not a simple issue without the adoption of an efficient type of information technology. This study investigates whether the outputs of the adopted automated accounting information systems by the commercial banking sector of Bangladesh can, or cannot satisfy, the requirements of decision makers in these banks, and examines the role that information technology plays in the decision making process of these banks. To be appropriate for the decision making process, several characteristics should be available in the outputs of the automated AIS. The IFRS conceptual framework has identified the qualitative characteristics of accounting information that distinguishes useful from inferior information for the purposes of decision making to include the characteristics of relevance, reliability, understandability and comparability. The main problem of this study is to investigate the contribution of AIS to the Commercial Banks of Bangladesh in providing appropriate outputs to the requirements of decision makers of these banks. This problem can be better introduced through the following question; do the adopted automated AIS by the Commercial Banks of

Bangladesh provide understandable, relevant, reliable and comparable outputs to the requirements of decision makers of these banks. The answer of this question will satisfy the objectives of this study because when accounting information is characterized with, understandability, relevance, reliability, and comparability, it will be able to satisfy the requirements of decision makers.

Problem Statement

During the last twenty years, Commercial banks in the developing country have undergone tremendous changes. Deregulation, technological innovation and competition contributed largely to the developments that took place during the decades (Dey, 2007). As a result, Commercial banks' information is very much important for the economy. To provide relevant information in time the Commercial banks should have a unified accounting information system. Effective AIS is essential for data collection, data management, data maintenance, data control and information generation of the Commercial Banks . But the information handling units of the Commercial Banks have not been properly organized. Rules and procedures have not been properly developed to guide information handling departments. In this situation we try to find out the efficiency and effectiveness of the overall AIS of the Commercial Banks in Bangladesh.

Objectives of the Study

The objectives of the study are as follows:
1. To investigate whether the information provided by the automated AIS is understandable, reliable and relevant to the decision makers.
2. To know about how the outputs of the automated AIS are comparable among banks operated in Bangladesh.

II.   LITERATURE REVIEW

An important study carried out by Makamreh and Dahhan (2000), in Jordan. The purpose of this study is to examine the effect of using information systems in performing the jobs of Jordanian banks. The study shows that the use of computers leads to more accurate and correct decisions, and improves system of controlling and supervision in Jordanian banks. Moreover, the study finds that the use of computers in the Jordanian banking sector produce more accurate information. Accurate decision is that decision which is able to represent the actual situation, so it is free of many mistakes. This recommendation is considered important because when Jordanian banks adopt it, the usefulness of these banks will be enhanced.
Seyam & Rahahleh (2006), carried out a study to investigate the appropriateness of the AIS outputs to the requirements and purposes of decision makers in the commercial banks of Jordan. One important conclusion of this study is that the outputs of the Jordanian commercial banks are appropriate to the purposes of decision making in these banks. The study reveals that the outputs of the automated AIS satisfy carefully the requirements of decisions makers in these banks. This study and its findings are important to the managements of the Jordanian commercial banks industry, especially when we recognize that commercial banks in Jordan early adopted the automated AIS.
Abu-Musa, (2006), conducted a study to investigate the perceived security threats of the automated accounting information systems in the Egyptian banking industry. The study focuses on the security aspects of using automated accounting information systems. The author studied the weaknesses and the shortcomings that may occur because of inappropriate use of information system by employees in the Egyptian banks. He also takes into consideration the other weaknesses that may occur because of reasons other than human resources. The study finds that accidental entry of bad data by employees, accidental destruction of data by employees, employees' sharing of passwords, and misdirecting prints and distributing information to unauthorized people, are the most significant perceived security threats to the automated AIS in the Egyptian Banking industry. Under-control mistakes can be avoided and the use of information system can be improved through more training programs to the employees in those banks, and by the use of more developed information systems.
Sajady, Dastgir, and Hashim Nejad, (2008) investigated this effectiveness for financial managers working in listed Iranian companies in Tehran Stock Exchange. The authors found that the implementation of accounting information systems improved the decision making process and the quality of decisions in these decisions. In addition, the study found that accounting information facilitates the process of preparing and completing the transactions of these firms. Along with their attempts to investigate of assessing the level of perceptions the outputs of computerized AIS.
Fawzi and Masrin, (2011) investigated the perceptions of four factors, including; performance expectancy, effort expectancy, social influence, and social conditions in using computerized AIS in financial

institutions of Bangladesh. The authors depended on a sample consisted of 400 respondents of employees in Banks, insurance companies and other financial institutions, and used multiple regression in testing the hypotheses of their study. The study found that all of the above mentioned factors have a significant influence in using the computerized AIS. Based on the survey of the literature review and the conclusions of prior researches, it is apparent that the adopted automated AIS should be characterized with several characteristics in order to be beneficial for the decision making process. The useful automated AIS for the purposes of decisions making should be understandable, relevant, reliable, comparable, and consistent. Some prior researches focused on these characteristics and shows that some of the above mentioned characteristics are available, while others unavailable.

III.   CONCEPTUAL FRAMEWORK

Accounting Information System

An accounting information system (AIS) is a structure that a business uses to collect, store, manage, process, retrieve and report its financial data so that it can be used by accountants, consultants, business analysts, managers, chief financial officers (CFOs), auditors and regulatory and tax agencies. In particular, specially trained accountants work with AIS to ensure the highest level of accuracy in a company's financial transactions recording and to make financial data easily available to those who legitimately need access to it, all while keeping data intact and secure.

Automated information system

An automated information system is an assembly of computer hardware, software, firmware, or any combination of these, configured to accomplish specific information-handling operations, such as communication, computation, dissemination, processing, and storage of information. Included are computers, word processing systems, networks, or other electronic information handling systems, and associated equipment. Management information systems are a common example of automated information systems.

Commercial Bank

This is a financial institution providing services for businesses, organisations and individuals. Services include offering current, deposit and saving accounts as well as giving out loans to businesses. Commercial bank is defined as a bank whose main business is deposit-taking and making loans.
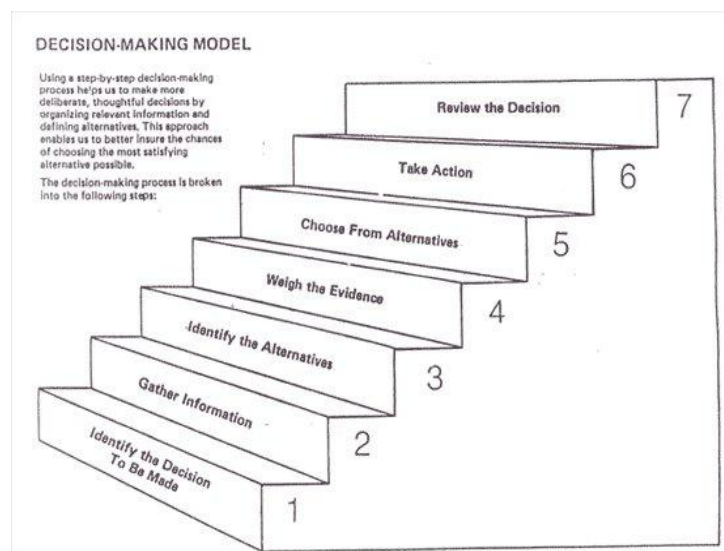
Definition of Variables

The variable includes both independent and dependent variable.

Dependent Variable

Decision making Process

Decision making is the process of making choices by setting goals, gathering information, and assessing alternative occupations.

DECISION-MAKING MODEL

Using a step-by-step decision-making process helps us to make more deliberate, thoughtful decisions by organizing relevant information and defining alternatives. This approach enables us to better insure the chances of choosing the most satisfying alternative possible.

The decision-making process is broken into the following steps:

7 Review the Decision
6 Take Action
5 Choose From Alternatives
4 Weigh the Evidence
3 Identify the Alternatives
2 Gather Information
1 Identify the Decision To Be Made

Independent Variable

Relevance: Relevance is the concept that the information generated by an accounting system should impact the decision-making of someone perusing the information. The concept can involve the content of the information and/or its timeliness, both of which can impact decision making.

Understandability: Understandability is the concept that financial information should be presented so that a reader can easily comprehend it. This concept assumes a reasonable knowledge of business by the reader, but does not require advanced business knowledge to gain a high level of comprehension.

Reliability: Information is reliable if a user can depend upon it to be materially accurate and if it faithfully represents the information that it purports to present. Significant misstatements or omissions in financial statements reduce the reliability of information contained in them.

Comparability: Accounting comparability is a quality of accounting information that addresses the usability of financial information. Information that is prepared using the same measurement techniques and reported in a similar fashion is considered comparable information because this information is similar and can be judged side by side other similar financial information. Without the concept of comparability, financial ratios would not exist.

Relationship between Independent and Dependent variables

The dependent variable i,e decision making process is a function of quality of information i,e understandability, relevance, reliability, and comparability. It can be written as follows-

Decision making = f(understandability , relevance, reliability, and, comparability)

The Research Hypotheses

Based on the presented conceptual framework and on prior researches, the hypotheses of the study, in their null form, are as follows:

Ho1: The outputs of the automated AIS of the commercial banking sector of Bangladesh are not understandable.

Ho2: The outputs of the automated AIS of the commercial banks of Bangladesh are irrelevant.

Ho3: The outputs of the automated AIS of the commercial banks of Bangladesh are unreliable.

Ho4: The outputs of the automated AIS of the commercial banks of Bangladesh are incomparable.

IV.   METHODOLOGY OF THE STUDY

Methodology

A combination of survey method and statistical method is used to conduct the study. The method is very popular and is successfully applying in many empirical research studies. Therefore the researchers have taken this methods to collect and analysis of data without giving much discussion on the method. In this method data are collected from a structured questionnaire and then these data are analyzed through appropriate statistical techniques.

Target Population

The population of the study includes the entire group of the employees of commercial banks of Bangladesh. Up to the end of 2017, this group consists of 49 commercial banks, among these, four (04) are Government Commercial Banks.

Sample Unit

A sample consisting of 130 decision makers in the commercial banks was selected based on the convenience sampling method. All of these respondents are occupying administrative positions in this type of banks in Bangladesh including, chief executives, heads of departments, heads of divisions, and other decision makers in other positions of the commercial banks.

Data Collection Procedure

To investigate the validity of the research instrument, four professionals in the banking sector and three academics in the field of accountancy were consulted. They were asked to check whether the items of the questionnaire measure the required characteristics of accounting information, or not. They were also asked to confirm that each item of the questionnaire is categorized under the correct or representative section. Moreover, they were asked to suggest a weight for each item within its section, where the total scores for each section does not exceed 100%. Reliability tests using Cronbach's Alpha revealed a value of 77 percent, so it can be considered reliable to measure the availability of useful accounting information in the outputs of automated AIS. One way to assess the potential for non-response bias is to compare data from late respondents with data from on-time responses, as in Wallace and Mellor (1988). In this study, 14 responses had received following a reminder. Late responses were not significantly different from other responses in any of the analysis in the section of results. The questionnaire consists of different sections. The first had been prepared to collect the related demographic data of respondents. The purpose of the second section was to measure whether the outputs of AIS of the Commercial Banks of Bangladesh are understandable, or not. This section consists of 6 items (items 6-11). The third section is prepared to measure the relevance of the outputs of the automated AIS. It encompasses the items from 12, to 18. The fourth section of the questionnaire had developed to measure the reliability of the outputs of the automated AIS. A group of 7 items are included in this section. This section encompasses the items from 19, to 25. The fifth section is developed to measure whether the outputs of the automated AIS of the commercial banks are comparable or incomparable. A group of nine items had used to measure the extent of comparability. This group includes the items from 26, to 34. Except the first one; all other sections were developed following the five-point Likert's scale to simplify the process of measurement.

V. DATA ANALYSIS AND HYPOTHESIS TESTING

Descriptive Statistics

As appears in table-1 most respondents have a business major. Among respondents, 67 have a business major, while 63 have a major of other than business. Based on these numbers, 51.54% of respondents hold a business major, while 48.46 % of them have a non business major. These proportions indicate that respondents have the ability to understand the items introduced to them, and are able to provide the reasonable answers for these items.

Table number (1) also shows that 57.69 % of respondents have post-graduation with MBA, 17.69 % have post-graduation but not MBA, whereas 24.62 % t has lower than this degree. These proportions can also be considered a good evidence for respondents' ability to understand the items of the questionnaire, and to provide the appropriate answers. The table also shows that most respondents occupy an administrative position in their commercial banks. The analysis reveals that 87.69 % of them are either general managers, heads of departments, or branches managers. This high proportion means that most respondents are required to take decisions, and their answers for the items of the questionnaire are based on their experience and on their practice of the decision making process. This high proportion of decision makers among respondents adds more reliability to the questionnaire. The table reveals that about 92 percent of respondents have five-year experience, and just about 8 percent have less than this period. This means that, most respondents have enough experience, so they have the ability to answer the items of the questionnaire, because when an employee practices his job for a longer period, he/she becomes more knowledgeable with the methods used in the job performance and he/she will be more familiar with the terminology of his job. This result supports the reliability of the study.

Table One

Item Numbe	Item	Answer Options	Total	Percentage
1	**Education Field**	**Business**	67	51.54%
		Science	31	23.84%
		Humanities	26	20%
		Others	8	6.15%
		Totals	130	100%
2	**Degree**	**Post Graduation With MBA**	75	57.69%
		Post Graduation Without MB	23	17.69%
		Graduation	26	20%
		Others	6	4.61%
		Totals	130	100%

3	Organizational Position	General Manager	4	3.07%
		Branch Manager	17	13.07%
		Head of a Department	42	32.31%
		Head of a division	51	39.23%
		Other	16	12.31%
		Totals	**130**	**100%**
4	Years of Experience	20 years or more	2	1.53%
		15 to 19 years	30	23.07%
		10 to 14 years	48	36.92%
		5 to 9 years	39	30%
		Less than Five Years	11	8.46%
		Totals	**130**	**100%**

Testing the First Hypothesis Ho1

Ho1: The outputs of the automated AIS of the commercial banking sector of Bangladesh are not understandable. Table (2) shows the analysis of the group of items used to measure the understandability of the outputs of the automated AIS of the commercial banks. This table reveals that the computed t-value of most included items in this group is somewhat high. The table also shows that the highest mean belongs to item number 8, which states that the outputs of the automated AIS provide the required information to the decision making process, and enable them to make good decisions. In contrast, the lowest mean belongs to item number 11, which states that the outputs of the automated AIS simplify the decision making process. The mean of item number 8, which is the highest, is 3.9712 at, 1.0188 standard deviations, while the mean of item number 11, which is the lowest, is 3.5, at, 1.322 standard deviations.

Considering table (2), the mean of the entire group of items is 3.7766, at, a standard deviation of 0.4746. These two values are enough indicators for the understandability of the outputs of the applied automated AIS in the Commercial Banks of Bangladesh. Understanding information improves its value to users, whereas this value declines when information are less understandable. When information is highly understandable, decision makers can depend on this information to take effective decisions. A good information system leads to understandable outputs, then to more beneficial information to decision makers. The outputs of an information system are better to be clear, easy to use, and understandable by most users in order to be more valuable. Based on information available in table (2), the outputs of the automated AIS of the Commercial Banks of Bangladesh are understandable by decision makers, because the mean of the group of the used items in the measurement of understandability is higher than the proposed mean, which is equal to 3.

Table Two

ItemNo	Item	Average	Standard Deviation	T-Value
6	The outputs of the computerized AIS produce clear and understandable information to decision makers in the commercial banks of Bangladesh.	3.8654	1.088	0.336
7	The outputs of the computerized AIS produce simple and smooth iinformation to the decision making process.	3.8365	1.1415	2.66
8	The computerized AIS contribute in providingthe required information to Decision makers inthe commercial banks of Bangladesh.	3.9712	1.0188	2.427

9	Understanding the outputs of computerized AISrequires a reasonable knowledge of jobs thatAIS deals with, by decision makers in the commercial bank ⊏ Bangladesh.	3.6635	1.1026	1.097
10	A knowledgeable decision makers with the economical activities that the AIS deals with,helps decision makers in understanding.	3.7596	1.1700	3.245
11	The computerized AIS produce an outputs thatsimplify the decision making process to thedecision makers in the commercial banks of Bangladesh	3.5000	1.322	2.108
	Understandability	3.77660	0.4746	5.244

Table (3) reveals that the computed t-value is 5.244. When the computed t-value is compared with the tabulated one, which equals 1.96, it is apparent that the computed one is greater. Because the computed t-value is greater than the tabulated, at coefficient of significance the null hypothesis is rejected and the alternative one is accepted. In other words, this hypothesis shows that the outputs of the automated AIS of the Commercial Banks of Bangladesh are understandable and appropriate to the requirements of decision makers.

Table three

Variable	Tabulated	Computed T	Significance Level
Understandability	1.96	5.244	0.05

Testing the Second Hypothesis Ho2
The outputs of the automated AIS of the Commercial Banks of Bangladesh are irrelevant.
Table (4) shows the items used in measuring whether the outputs of the automated AIS of the commercial banking industry of Bangladesh are relevant, or irrelevant, and the related result of the analysis to this group of items. Based on information available on this table, the computed t-value is somewhat high for most of these items. The table
shows that item number 18, which states that the outputs of the automated AIS help decision makers in the Commercial Banks of Bangladesh to reduce the degree of uncertainty when they need to take decisions. In contrast, item number 16, which states that the outputs of the automated AIS enable decision makers in these banks to be more certain of their previous predictions. The greatest, which belongs to item number 18, is 3.6827, at a standard deviation of 1.0907, while the lowest one, which belongs to item 16, is 3.4231, at standard deviation of 1.1465.   Considering table (4), it is clear that the mean of the entire group of items used in the measurement of relevance of outputs equals 3.6016, at a standard deviation of 0.4772. The values of both the mean and the standard deviation indicate that the automated AIS of the Commercial Banks of Bangladesh produce relevant accounting information. To be useful for the needs of decision making, information must be available when needed. In other words, information must be characterized with timeliness. Timeliness of information enables decision makers to evaluate the different possible alternatives, and thereafter increases the value of this information. The decision maker will be more certain of the decision appropriateness if he/she depends on his assessment of available alternatives, and this will not occur unless relevant information is available.
Because some decisions influence the future of the firm, predicting the future in an accurate form will be difficult task without the availability of information. In other words, when information is available, predicting the future in an accurate manner will be possible. Decision makers will also be more eligible to assess their prior predictions, through the comparison between the predicted and actual performance, and then, they can reach to more apparent conclusion regarding the accuracy degree of their prior predictions. In addition, decision makers can depend on the same methods of predictions if that degree of accuracy is reasonable. Predicting the future is a continuous process, therefore, the availability of relevant information is essential to the decision making process. Based on information appears in table (4), the outputs of the automated AIS of the Commercial Banks of Bangladesh are relevant, because the mean of the entire group of items used in measuring the relevance of these outputs is greater than 3, and this is a good indicator for the relevance of the outputs of the automated AIS.

Table Four

Item No.	Item	Average	Standard Deviation	T-Value
12	The outputs of the computerized AIS affects directly the decisions that decision makers take in the Commercial Banks of Bangladesh.	3.5192	1.2296	1.582
13	The outputs of the computerized AIS are able to help Decision makers in the commercial banks of Bangladesh to assess and review the previous events of the of the bank.	3.6442	1.2221	1.485
14	The outputs of the computerized AIS enable decision makers in the commercial banks of Bangladesh to receive timely information.	3.6635	1.1201	4.581
15	The outputs of the computerized AIS enable decision makers in the commercial banks of Bangladesh to increase the degree of certainty about the decision alternative	3.6635	1.1542	3.153
16	The outputs of the computerized AIS enable decision makers in the commercial banks ofBangladeshto be certain of there previous predictions.	3.4231	1.1465	2,061
17	The outputs of the computerized AIS enables the decision makers in the commercial banks of Bangladesh to predict the future events.	3.5481	1.1565	3.099
18	The autputs of aaautomated AIS helps The decision makers the commercial banks of Bangladesh to decrease the degree of uncertainty when they take decions.	3.6827	1.0907	2.816
	Relevance	3.6016	0.4772	8.526

Considering table (5), the computed t-value of the entire group of items used in the measurement of relevance equals 8.526. When the computed t-value is compared with the tabulated one, which equals 1.96, it is apparent that the computed one is greater. Because the computed t-value is greater than the tabulated at 0.05 significance level, the null hypothesis is rejected, and the alternative one is accepted. This means that the outputs of the automated AIS of the Commercial Banks of Bangladesh are relevant.

Table Five

The variable	Tabulated T	Computed T	Significance Level
Relevance	**1.96**	8.526	**0.05**

Testing the Third Hypothesis Ho3
The outputs of the automated AIS of the Commercial Banks of Bangladesh are unreliable.
Table (6) shows the items used in measuring whether the outputs of the automated AIS of the Commercial Banks of Bangladesh are reliable, or unreliable, and the related results to the analysis. As the table declares, t-value of most of these items is somewhat high. Item number 23, which measures the neutrality of the automated AIS outputs, has the greatest mean, while item number 20, which measures the correct representation of AIS outputs to the events that occurred during the year, has the lowest mean. The highest mean, which belongs to item number 23, is 4.1346, at a standard deviation of 0.8012, while the lowest one, which belongs to item 20, is 3.5, at a standard deviation of 1.2148.
Table (6) also reveals that the mean of the entire group of items used to measure the reliability of the outputs of the automated AIS of the Commercial Banks of Bangladesh is 3.7074, at a standard deviation of 0.4466. These values are good indicators for the reliability of the outputs. When the outputs of an information system are

objective and free of bias, these outputs will be more beneficial for the decision making process, because objective information helps decision makers to be more certain about the accurateness of the decision. Moreover, objective and free of bias information, makes the decision more applicable and increases the probability that the decision will achieve its objectives. The decision maker can benefit more from information when it is complete, correct, accurate, and free of errors. When these characteristics are available

in information, the decision making process will be more rational. In addition, when the characteristics of honesty, objectivity, and verifiability are available in the outputs of AIS, the decision maker can depend on these systems. When these features are unavailable in the outputs of AIS outputs, the importance of these systems will decline, because the information is invaluable. It is clear from the results appear in table number (6), that the outputs of automated AIS of the Commercial Banks of Bangladesh, can be characterized with reliability, because the mean of the entire group of items used in measuring reliability is high, and it is greater than the proposed one for the study, which is equal to 3.

Table Six

Item No.	Item	Arithmetic Mean	Standard Deviation	T-Value
19	The outputs of the computerized accounting information systems help decision makers reconcile between information and the events that information reflects.	3.5577	1.1560	2.625
20	The outputs of the computerized AIS in the commercial banks of Bangladesh demonstrate well and true the events of the bank.	3.500	1.2148	2.849
21	The outputs of the computerized AIS of the commercial banks of Bangladesh are considered objective.	3.9038	1.0383	0.67
22	There is a possibility to verify the correctness of the outputs of the computerized AIS in the commercial banks of Bangladesh.	3.6154	1.1261	1.917
23	The outputs of computerized AIS of the commercial banks of Bangladesh are considered as neutral and free of bias.	4.1346	0.8012	0.120
24	We can consider the outputs the computerized AIS of the commercial banks of Bangladesh as correct outputs.	3.6731	1.1860	3.084
25	We can describe the outputs of the computerized AIS of the commercial banks of Bangladesh by accuracy.	3.5673	1.1639	0.961
	Reliability	3.7074	0.4466	4.904

As of other hypotheses, t-test is used in testing this hypothesis. Table (7), includes information regarding the two values of the computed and tabulated t. Based on information appears in this table, it is notable that the computed t-value equals 4.904, and it is greater than the tabulated one, which equals 1.96, at a 5% level of significance. Based on this result, the null hypothesis is rejected, while the alternative one is accepted.

Table Seven:

The variable	Tabulated T	Computed T	Significance Level
Reliability	1.96	4.904	0.05

Testing the Fourth Hypothesis Ho4

The outputs of the automated AIS of the Commercial Banks of Bangladesh are incomparable.

Table (8) shows the statistical analysis of the items used in the measurement of outputs comparability of the outputs of the automated AIS of the Commercial Banks of Bangladesh. Based on information available in this table, it is clear that the computed t- value is high enough for most items included in the group. Item number 27, which measures the possibility of making a comparison among the accounting information of different commercial banks in the same accounting period, has the highest arithmetic mean. In contrast, item number 28, which measures the possibility of making a comparison among the outputs of the automated AIS of the Commercial Banks of Bangladesh under the stability of accounting policies, has the lowest mean. The highest arithmetic mean in this group equals 3.7596, whereas the lowest one equals 3.4808. As table (8) reveals, it is notable that the mean of the group of items used to measure the comparability of the outputs of automated AIS of the Commercial Banks of Bangladesh is 3.6175, at a standard deviation of 0.3741. The values of means and standard deviations are indicators for the possibility of comparability characteristic among the outputs of the automated AIS.

Comparing the results of the current accounting period with the results of prior periods provides decision makers with more knowledge about the direction and the development of activities in the Commercial Banks of Bangladesh. When the reports issued by the automated AIS are similar in form, structure, and content, from period to period, the accounting information will be more comparable and more beneficial to the decision making process. The AIS that provide more comparable outputs will be more beneficial to the decision making process, because the process of making a comparison among the outputs of commercial banks and among the outputs of the same bank over different accounting periods will be easier and less time consuming. Based on information appears in table (8), we find that the outputs of the automated AIS in the Commercial Banks of Bangladesh can be considered comparable. The mean of each item included in the group used to measure the comparability of the outputs of AIS is more than the proposed one, which equals 3.

Table Eight

Item No.	Item	Arithmetic Mean	Standard Deviation	T. Value
26	Comparing of accounting information of the same bank among different accounting periods is possible by using the outputs of the computerized AIS.	3.5769	1.0856	2.338
27	The possibility to compare the accounting information of the same year among the different commercial banks is available by using the outputs of the computerized AIS.	3.7596	1.0748	1.492
28	The outputs of the computerized AIS in the commercial banks of Bangladesh are comparable under the stability of accounting policies.	3.4808	1.1904	1.557
29	The outputs of the computerized AIS in commercial banks of Bangladesh are helpful in making decisions when that information is comparable.	3.6538	1.1301	2.601
30	The outputs of the computerized AIS in the commercial banks of Bangladesh are characterized by their brief.	3.6058	1.1271	2.037

31	There are no differences in the structure of financial reports in the commercial banks of Bangladesh among the different years when that reports are issued by a AIS.	3.5000	1.1491	3.652
32	Analyzing financial information that issued by a computerized AIS in commercial banks of Bangladesh is possible and simple.	3.5673	1.1555	2.298
33	Analyzing and comparing among the accounting information can be done quickly by using the outputs of the computerized AIS.	3.7404	1.1658	2.614
34	Analyzing and comparing financial information that issued by a computerized AIS in the commercial banks of Bangladesh can be accomplished in an accurate manner.	3.6731	1.0561	1.444
	Comparability	3.6175	0.3741	8.558

Based on table (9), the computed t-value equals 8.558, and it is greater than the tabulated one which equals (1.96) at a confidence level of 95% (α=0.05). Therefore, we reject the null hypothesis and accept the alternative one. In other words, the outputs of the automated AIS of the Commercial Banks of Bangladesh are comparable.

Table Nine

The variable	Tabulated T	Computed T	Significance Level
Comparability	**1.96**	**8.558**	**0.05**

VI.   FINDINGS AND RECOMMENDATIONS

Findings:

Based on the available analysis in the prior section, the findings of the study are as follows:

1. The outputs of the automated AIS of the Commercial Banks of Bangladesh are understandable by decision makers in these banks. This conclusion means that the automated AIS presents simple, smooth, and clear outputs, so decision makers do not find difficulties to understand.
2. The study finds that the outputs of the automated AIS of the Commercial Banks of Bangladesh are relevant. This conclusion means that the automated AIS of these banks provide decision makers with correct and timely information, and this information helps decision makers in predicting the future, so they can take better decisions.
3. The third finding of the study is that the outputs of the automated AIS in the Commercial Banks of Bangladesh are reliable. This conclusions means that these outputs can be used by decision makers in the process of decision making, so decision makers can depend on these outputs to take their decisions. When accounting information is reliable, this information is characterized with verifiability, representational faithfulness, and neutrality.
4. The outputs of automated AIS reflect the economic events of the firm, and these outputs are verifiable, objective, complete, accurate, and include an accepted level of representational faithfulness.
5. The finding of the study is that the outputs of the automated AIS of the Commercial Banks of Bangladesh are comparable. This conclusion means that these outputs includes only relevant details and involve the same content and order of items from period to period, so the process of comparison over periods and among banks is possible.

Recommendations:

Based on the above mentioned findings, the study recommends the following:

1. The automated AIS of the Commercial Banks of Bangladesh are currently satisfying the requirements of information for the decision making process, but these banks are required to adopt a more developed AIS, in order to maintain its current competitive advantage, and to attract more customers.

2. The automated AIS of the Commercial Banks of Bangladesh should be given more priority by the managements of these banks. In other words, more support is needed by the managements of this group of banks for the adoption of more developed AIS.

3. Decision makers in the Commercial Banks of Bangladesh are recommended to acquire more ability to better understand these outputs and to take more benefits of these outputs. This recommendation can be well satisfied through the conducting of training programs.

VII.   CONCLUSION

The results of the study show that Information Technology i,e, automated AIS enhances the accuracy, reliability, relevance and completeness of financial reports to a sufficient and ample level. The accuracy, reliability, relevance and comparability of financial reports can be enhanced by Information Technology to a satisfactory degree in the decision making process. Automated AIS has a great deal of positive effects on financial reports of the Commercial Banks of Bangladesh. It also increases transparency through the use of mediums like extensible business reporting language; it reduces time wasted on manual preparation and makes financial reporting easier for the accountants and more understandable and accessible for users.   The findings also showed Automation of financial reports does not affect compliance with generally accepted accounting principles and standards. Automation does not affect compliance in any way. The data analysis and Hypothesis section shows how the related quality of the financial information of the banks are being maintained to make the decision making more easy and effective. Finally the commercial Banks of Bangladesh are encouraged to make more investment to adopt more advanced AIS to smooth their decision making process. However the study is done by taking information only from the employees of the banks, but the attitude of the employees in providing information have not investigated. Therefore another researcher will study this matter in the future research work.

References:

[1.] Akter, M., Mohammad, T. and Mahfuzul, H. (2007), "The Effect of the Phase of System

[2.] Development Life Cycle on the Performance of Accounting Information System Development: the Bangladesh Sceniario", ASA University Review, Vol. 1, No. 1,

[3.] Dey, Shikha, (2007), "Accounting Information System in Commercial Banks-An

[4.] Elena Urquía Grande, Raquel Pérez Estébanez, Muñoz Colomina; The impact of Accounting Information Systems (AIS) on performance measures: empirical evidence in Spanish SMEs; The International Journal of Digital Accounting Research Vol. 11, 2011 pp. 25 - 43 ISSN: 1577-8517

[5.] Environment and Tunisian Firm Performance; The International Journal of Digital Accounting Research Vol. 13, 2013, pp. 1 – 35 ISSN: 1577-8517

[6.] Evaluation in Bangladesh", The Bangladesh Accountant, April-June.

[7.] Financial institutions in Bangladesh", Dhaka University Journal of Business Studies, Vol. xxi, No, 2, December.July- December.

[8.] Hawke, A. (2000). Security and Control in Information Systems (A guide for business and accounting). Great Britain: T J International Ltd, Padstow, Cornwall.

[9.] Hazar Daoud & Mohamed Triki; Accounting Information Systems in an ERP

[10.] Islam, Arshad, (2000), "Computer based Management Information System and the.Makarevich, M. (2001). "Considerations about the Russian Accounting Reform,"

[11.] Lebow, M.I. and Tondkar, R.H. (1986), "Accounting in the Soviet Union," *International*

[12.] Lucas, H. C., (1974), "A Empirical Study of A Framework for Information Systems", Decision Science, Vol.5, No., 1, pp.102-113.

[13.] Lucas, H. C., (1990), Information System concept for management, London: McGraw-Hill.

[14.] Md. Motahar Hossain-1, Dilara Irin-2, Md. Shajedul Islam-3, & Sumi Saha-;Electronic-Banking Services: A Study on Selected Commercial Banks in Bangladesh; Asian Business Review, Volume 3, Number 3/2013 (Issue 5) ISSN 2304-2613 (Print); ISSN 2305-8730 (Online).

[15.] Moscove, Stephen A., Simkin, M. G. and Bagranoff, N.A. (1997), Core Concepts of Accounting information System, New York, John Wiley and Sons.

[16.] *Newsletter*, International Center for Accounting Reform, Moscow, February 11.Technology-ITP.

[17.] Rehana Fowzia and Mahmuda Nasrin; Appreciation of Computerized Accounting System in Financial Institutions in Bangladesh; World Review of Business Research Vol. 1. No. 2. May 2011 Pp.1 – 9

[18.] Romney, Marshall B. and Steinhart, Paul John (2003), Accounting Information