

Usage of Management Information System in Dynamic Business Environment: A Study on Major Commercial Sectors of Bangladesh

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Abstract

In my research article, I elaborately researched to find how our business in Bangladesh is using or implying the Management Information System (MIS). I discussed in the light of SME Small and Medium-Sized Enterprise, the Banking sector of Bangladesh, and especially how E-Commerce organizations are using the Management Information System (MIS). I further found that gradually organizations are increasing the use of MIS in Bangladesh, banks are maintaining their transactions, ATM records, the record of payroll management, Loans, E-Commerce are using to record orders, inventories, etc. on the other hand, here I in my research that many of the organization isn't even able to hire such employees who are well expert over MIS and there is also lack of efficient MIS experts, moreover we do not have enough access to the update software or systems that we need to use in MIS.

Keywords: *- MIS, Banking, E-Commerce, SME, Software, System, Information Technology*

INTRODUCTION

MIS is playing a vital role in this industrial revolution. It is helping the management of all organizations to make the business process much smoother and assisting in making effective decisions. In an

organization, every department takes its advantages to make their activities easier. Most noticeable, it facilitates top and mid-level management to make the right decision at the right time through providing the relevant data and the

organization converts them to find the necessary information to make an effective decision. To sustain and prosper in this competitive market, Information System (IS) necessity and implementation of Information System (IS) is immense & managers are well recommended to have very deep knowledge in this regard. We can overview that Management Information System (MIS) is one of the crucial branches of Information systems. The continuous supply flow of information system is done through the MIS toward managers and others; such information is highly relevant and important.

MIS is all about gathering and systematically processing raw data into usable information and further can be work with those or can directly help managers to make effective and efficient decisions StudyMoose (2016). "MIS" is a combination of human attempts by computer to collect, store, recover information by using communication systems for good management of organization activities (Kelly, 1984).

In this age of Information Technology, MIS includes determination support systems, resource, and people direction applications, enterprise resource planning (ERP), enterprise public presentation

direction (EPM), and supply concatenation direction (SCM), client relationship direction (CRM). In Bangladesh, the practice of Management Information System (MIS) can be commonly notified in many of the organizations and Industrial sectors StudyMoose (2016).

This paper will be focusing on the MIS in SME, Banking, and, most importantly, over E-Commerce.

OBJECTIVES OF THE STUDY

It gets a clear picture of how well the management information system in Bangladesh playing a crucial role in changing the business challenging environment. I have categorized the objectives of my study in some distinct parts, which will provide a crystal idea of this paper.

- To gather the knowledge on use of MIS in business sectors in Bangladesh
- To understand the overview how MIS relates to the MIS practices adopted in Bangladesh
- To observe the practice of MIS in the banking sector in Bangladesh and further to gather understanding on the practice of MIS in E-Commerce firms.

- To analyse the efficiency of employees practicing MIS in the organizations and understand the advance software being used in the organizations at Bangladesh.

THE METHODOLOGY OF THE STUDY

The study of this paper is based on the secondary data for accomplishing the mentioned objectives above. My study in this paper focuses on the impact of MIS on the commercial sectors of Bangladesh. To conduct the study, the data has been collected from websites, journals, research papers, etc. The paper also provides such relevant information, which was presented by other famous researchers and many of the information also collected by them using questionnaires and they also analyzed such data using statistical tools.

Moreover, I discussed in this study about the impact of MIS on some crucial commercial sectors of Bangladesh, especially on the E-Commerce organizations. My main vision and focus were to help other researchers to gather better understanding regarding the influence of MIS in the major commercial sector in Bangladesh.

LITERATURE REVIEW

In the service organization to develop the use of MIS has not been focused as much as it was required, stated by Culnan (1986). From (Awad 1988), we can clearly state that to assist the operational and decision-making function of an organization MIS provides necessary and crucial information so that MIS is considered as an integrated & user-machine system. Moreover, from two famous MIS experts, considered as leaders of MIS conceptual and structural propagator, also famous professors of American University argued that for assisting operations, management, and decision-making functions in an organization MIS plays an integrated & user-machine system to supply information Davis & Olson (2000). Another researcher also explained that decisions making of management are assisted by the computer-based MIS Software Senn (1978). Laudon & Laudon (2004, p.10) stated that for monitoring and assisting managerial decision making in an organization Information System (IS) gather or amends, process, store, and distribute information, its function is correlated to others also. According to (Baskerville and Myers 2002), from the 1970s, it slowly developed into the social science-based discipline from applied

computer science discipline. In another study of MIS, it has been mentioned that MIS assists the management function and operating function of an organization where it is considered as a set of elements such are people, hardware, software, data, and procedures. Such elements are being executed to enrich and find the final decision. In the past, some researcher as suggested of their studies that top-level management body must be well concern about the advantages of MIS, which also facilitates to create a strong collaboration among all employees in the organization and also it's effective for the external environment of an organization of cope with (Feng and Zhao, 2014). MIS is also correlated with other fields of discipline such are Computer Science, Organization Science, Management Science, Cognitive Psychology, Social Psychology, Organizational Psychology, Sociology, Management, Accounting, Marketing, and Economics (Nolan and Wetherbe 1980, Culnan and Swanson 1986, Baskerville and Myers 2002). Whatsoever, earlier many times, it's been an emerging topic that to achieve the support toward top level of management, Information System (IS) Manager should show IS as a resource of strategy and its uses in the organization (Manfreda and Stemberger, 2014).

LET'S VIEW WHAT MIS IS?

Management Information System (MIS) is to be considered as the Human-Machine system which facilitates information to make an effective decision of an organization (Schoderbeck, Kefalas & Charles, 1975). Another study of the researcher has mentioned that MIS in a wide field of structured data and source of relevant information which organization gathers communicates, and respectively present that information which further management overcomes their necessities in decision making (Long, 1989). In the same year, another famous author has proposed simply as MIS is the technologically present the information by a computer system (McLeod, 1998). Earlier a famous researcher has proposed MIS is preferred to be the effort of humans to collect the relevant data but through the computer system for gathering, storing, and also clouding such information for the management for running their necessary tasks more smoothly (Kelly, 1984). According to (Momeni, 1993) for assisting management though constructing decision, planning, controlling, and grabbing the best decision for an organization MIS deliver the appropriate data structurally on the perfect moment.

Using MIS in SME

Now a day, in Bangladesh SME is acting well strategically with the help of MIS. Let's overlook first what does the SME means here. The acronym of (SME) is "Small and Medium Enterprise". SME can be explained as, "A house managed in an individualized manner by its proprietors or spouses, which has merely a little portion of its market and is non-sufficiently big to hold entree to the stock exchange for raising capital". SME generally collect fund/ finance in their business from family, relatives, friends, and also few from the government. To ensure long-lasting economic development in both developing and developed countries SMEs are highly effective to enlarge economic expansion and employment/ job opportunities. SME in Bangladesh can play a crucial role in high employment opportunities along with less expenditure which enables higher economic boom and also can accomplish socio-economic goals [Problems and Prospects of MIS in Bangladesh. (2016 Mar 07)]. SME is divided into three categories Small/Cottage, Medium & Large, and more or less use of MIS over such is also can be seen in Bangladesh. To improve goods and services companies are using and utilizing new information engineering tools & implementing MIS strategies

which enable toward gaining competitive advantage. MIS farther can connect suppliers and customers through electronically which can ensure long-run relationships among them and can enable less brand switching from them. It is really difficult & more challenging to adopt MIS in the business with less capital like the Small and Medium-size industry of SME in Bangladesh. In a paper, it is said that It is non-exercised in these concerns although the engineering is existing and the Government of the People's Republic of Bangladesh has declared the information and communicating engineering as one of the thirst sectors of the state and taken diversified enterprises to actuate different endeavors to be connected and start operation of the engineering. The freshly elected authorities of the People's Republic of Bangladesh have declared their mission to develop digital Bangladesh by 2021.

As our country is not well developed, it is much more difficult to administrate, operate, and storing of data through MIS. There are further data which are not so easy to capture and record the data as those systems are not so updated, as many of the systems do not also perform well while operating. The coder of that system is also expensive where many firms are not

so capable to recruit them. Also, many coders are not well efficient to utilize that information to convert those data into an effective output. Moreover, the task to perform is quite difficult also. The installation cost of MIS in an organization is highly expensive for many firms. Many of the small and medium-sized businesses use technology while operating business through Facebook, Instagram, YouTube, and any other platform. They operate their pages for selling goods and buying raw materials from several suppliers. Through this they measure responses of customers via several managerial strategies; they often do the survey and take responses. In Facebook its automatically show the response of customer from the page. i.e. how many people visited the page, how many people liked this week etc. with the help of such data a firm/entrepreneur can easily plan his new business strategies to adopt to gain competitive advantage. Many medium or large size businesses also use their own software/ERP to operate their administrative task. Moreover, they are well dependent on that system while doing transactions, buying inventory, maintaining websites, etc. They further use that information to make managerial decisions for upcoming business enlargement and to sustain in the marketplace.

Using MIS in E-Commerce

The Dictionary meaning of E-Commerce is “The conducting of business communication and transactions over networks and through computers” (dictionary.com, 2005). E-Commerce has the internal and external functions of the organization; such are marketing, finance, manufacturing, selling, and negotiation, etc. which exhilarate commerce. E-Commerce is done through email, EDI, file transfer, fax, video conferencing, workflow, or interaction with a remote computer. According to [Debnath & Mahmud] [Daffodil International University Journal of Business and Economics, Vol. 2, No. 2, July 2007], E-commerce is any business transaction over an online system (such as an Internet, Extranet, Electronic Data Interchange (EDI) network, or electronic mail system). It does not include transactions over telephone, fax, or any payments made online for transactions whose terms were negotiated offline or by physical means.

Bangladesh's economy has been developed dramatically with the help of the use of technology. Further E-Commerce has changed the market of Bangladesh dramatically and trying to keep the economy stable still in the pandemic. In a statistical report, it is said that almost 52%

of the total population in the world uses the internet (Internet W. S., 2018). Such gives us an idea that how E-+Commerce is going to direct the future competitive marketplace. E-Commerce also indicates/includes Business 2 Business (B2B), Business 2 Customer (B2C), Customer 2 Customer (C2C) & Customer 2 Business (C2B). It was a dramatic boom of E-Commerce in the last two decades in the global market, 2.3 Trillion USD was its total amount of selling goods and services and further, it is estimated that the total amount of selling will be about 4.88 Trillion USD. [eMarketer, 2018]. Nowadays the economy of Bangladesh is well enough to be of a developing position. In the world recession, the economy of Bangladesh is also trying enough to be on the boom. It's doing a remarkable performance in economic activities. Bangladesh has a GDP growth of 7.1% is considering one of the fastest-growing economies [Karim, 2018]. Bangladesh is the second quickest developing economy in the world according to the IMF in the year 2006 (Payal, 2017). E-commerce promoted and spread of online transaction into society. The online transaction enables an easy record of a transaction using TPS (Transaction Process System) software, many of the organization and E-Commerce

firm uses such in Bangladesh. In Bangladesh E-Commerce organizations like Evaly, Daraz, OLX, Bikroy, Rokomari, Boibazar, etc uses their own ERP, which allows them in managing human resources, inventory, and supply-chain, Customer Relationship, Sales, and Finance & Accounting. E-Commerce of Bangladesh uses a system of manage marketing assistants, automation through artificial intelligence i.e. create an auto invoice, real-time decision making. Those enable them to be more cost-effective, guide knowledge workers, assisting all department managers, and delivering goods because of systems. In Bangladesh, the length of marketing channels has been minimized with the use of technological effective management. But still, they are far behind compared to the fast world country like the USA, China, Japan, etc. Many Bangladesh E-Commerce firms also trying to use the concept of Zero Inventory like Japan, i.e. Evaly, Which required high efficiency over managerial systems and tools.

MIS ASSISTING MODERN BANKING

In the banking sector Information Technology (IT) and Information systems (IS) are highly crucial in the banking business process. Banking through

technology gives us a new dimension in this sector toward internal & external members, which further operate customers more efficiently and effectively. In Bangladesh, the banking sector's MIS uses hardware, software, and network resource, and many more. It is to be mentioned that all the schedules or even non-scheduled banks adopted the practice of MIS. They use their own ERP to record the day to day transactions and record of lending of money toward their customers and many organizations. They also keep the record of the salary of employees with the help of the payroll system. In Bangladesh, every bank has the service of E-Money or electronic cash. They issue several cards toward their customers. While customer uses those card toward the automated teller machine (ATM), the machine automatically records it and also update the customer account then and then. For this, it is smooth for a manager to find out that record and take several decisions like Liquidity Management. It is to be highlighted that the service sector of Bangladesh provides the highest percentages of GDP, where the Banking sector is also included as plays a vital role (Sayeed et al. 2002). At present banking sectors in Bangladesh became much more challenging. However, every bank tries their best to provide the best customer

satisfactory services and they are gradually improving that such as their management activities, customer services, coming up with innovative ideas, technological advancement, facilities toward employees, etc. but still it is to be mention that IT & IS in the banking sector of Bangladesh is not much developed.

CONCLUSION

Management information is the system to use and facilities the management process to make business processes smoothers. Management information system enables management to take decisions much more easily and faster, it uses technology to make the decision automatic and assist to make an effective decision. In Bangladesh, there is a huge number of an organization who are using MIS and they are making an effective decision for their business processes, for example, finance & accounting department, marketing department, HR department. MIS assists E-Commerce for making the business process smother enough and to assist in making a proper decision using technology. E-Commerce is the system of buying and selling goods and services over an electronic medium. E-Commerce organizations are using MIS in several ways. They are recording transactions, inventories, payroll, etc. in software, and

collecting data and converting them as their need through using various systems. Moreover, banking sectors in Bangladesh allow transacting with cards, online, SMS, etc. and they record the transaction and loan lending and borrowing through using several software and systems. Such data are collected by the management and customized those to decide as to how they need for planning and other managerial functions.

RECOMMENDATIONS

- The study related to MIS should be increased. It is highly crucial to adopt updated knowledge regarding MIS to cope with a dynamic competitive environment.
- We need to focus more to adopt the use of MIS in the organization so that it becomes much quicker and accurate to decide for the leading organization. Moreover, we must imply the software and its functioning that are related to the MIS function.
- To ensure the training program of using MIS moreover we should conduct more and more training toward MIS experts and create some workshops so that other organizations

could know its importance and necessity.

- Other financial institutions may come forward with funding to adopt the use of MIS in an organization.

REFERENCES

- I. Ahituv, N. & Neumann, S. 1986. *Principles of Information Systems for Management*, 2nd edition, Dubuque, IA: William C. Brown.
- II. Awad, E.M. 1988. *Management Information Systems: Concepts, Structures, and Applications*, Menlo Park, California: Benjamin Cummins Publishing Company, Inc.
- III. Awad, E.M. 1988. *Management Information Systems: Concepts, Structures, and Applications*, Menlo Park, California: Benjamin Cummins Publishing Company, Inc.
- IV. Baskerville, R.L. & Myers, M.D. 2002. Information systems as a reference discipline.
- V. Culnan, M. J. 1986. The Intellectual Development of

- Management Information Systems, 1972-1982: A Co-Citation Analysis, *"Management Science"*, 32(2):156-172.
- VI. Davis, G.B. & Olson, M.H. 2000. *Management Information Systems – Conceptual foundations, structure and development*, McGraw-Hill International Editions, pp.5-7.
- VII. Earl, M.J. and Feeney, D.F. 1994. Is your CIO adding value, *"Sloan Management Review"*, 35(3):11-20.
- VIII. Economic review. 2010. Monetary management and financial market development.
- IX. eMarketer. (2018). *www.statista.com*. Retrieved July 12, 2018, from <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/>
- X. Feng, T. & Zhao, G. 2014. Top management support, inter-organizational relationships and external involvement, *"Industrial Management & Data Systems"*, 114(4): 526-549.
- XI. Internet, W. S. (2018). *www.statista.com*. Retrieved June 30, 2018, from <https://www.statista.com/statistics/249562/number-of-worldwide-internet-users-by-region/>
- XII. Kelly, K. (1984). Videotaping your software documentation, info system, November, p.42.
- XIII. Laudon, K.C. & Laudon, J.P. 2004, *Management Information Systems- Managing the digital firm*, 12th edition, Pearson education, India.
- XIV. Long, L. (1989). *Management Information Systems* (prentice hall, p 44).
- XV. Manfreda, A. & Stemberger, M.I. 2014. Factors causing the relationship gap between top management and IS personnel, *"Journal of Enterprise Information Management"*, 27(2):107-121.
- XVI. Mcleoo, R. (1998). *Management information systems*.
- XVII. Md Thohidul Karim, Glorious Sun School of Business and Management, Donghua University,

- 1882 Yan'an Road West, Shanghai
200051, P. R. China. *MIS Quarterly*, 26(1):1-14.
- XVIII. Momeni, H. (1993). *Information systems of management (MIS)*. Tehran: Etehad.
- XIX. Nolan, R.L. & Wetherbe, J.C. 1980. Toward a comprehensive framework for MIS research. *MIS Quarterly*, 4(2), 1-19.
- XX. Ostlund, L.E. 1974. Perceived innovation attributes as predictors of innovativeness. *Journal of Consumer Research*, 1(2): 9-23.
- XXI. StudyMoose. (2016). Problems and Prospects of MIS in Bangladesh. [Online]. Available at: <https://studymoose.com/problems-and-prospects-of-mis-in-bangladesh-essay> [Accessed: 21 Sep. 2020]
- XXII. Sayeed, Y., Bari, M., Rahman, M.M., Azad, W.A., Moniruzzaman, M., Shilpi, L.M. 2002.
- XXIII. Schoderbeck, P. Kefalas, G. & Charles, C. (1975). *Schoderbeck, management systems: conceptual considerations*. Dallas, Texas.
- XXIV. Senn, J.A. 1978. Essential Principles of Information Systems Development. *MIS Quarterly*, 2(2):17-26
- XXV. Seventh ed. New Jersey: prentice Hall.
- XXVI. Swinging Banking: Not Very Promising, *Bangladesh Research*, August(13).