Evaluating the Education Management Information System: A study on Non- Government College-level in Bangladesh

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Abstract: The aim of this study is to evaluate the Education Management Information System (EMIS) on the basis of the perception of the principals of Non-government College in Bangladesh. Descriptive research design and quantitative method were used in this study. A simple random sampling method was also used in the research. The population size was 1901 and the sample size was 92 in this study. For data collection, structured questioners were applied in interview. It is found that CTQ and SQ were in neutral position; System quality and System Use had neutral position but had a positive trend; CSE and IQ, US had moderately good, and PNB was in good position. This results may be helpful to use for the upgradation of EMIS and policy making.

Keywords: Education Management Information System (EMIS), Complementary Technology Quality (CTQ), Computer Self-Efficacy (CSE), System Quality (Sys. Q), Information Quality (IQ), Service Quality (SQ), User Satisfaction (US), Intention to Use (IU), User Satisfaction (US), Perceived Net Benefit (PNB)

I. INTRODUCTION

The Education Management Information System (EMIS) is an Information Technology (IT) based information system that includes collecting, storing , and processing , analyzeing raw data, and disseminateing information at various levels (Top, Middle, and Operational) of educational manager for planning and decision-making. EMIS collects various statistical data, and information from the educational institute and disseminates compressive, integrated, relevant, probable, explicit and good information to responsible educational administrators and managers to complete their responsibility for accomplishment the specific objectives (Ugwoke & Iruke Samuel, 2015; Bhatti & Adnan, 2010). It is contained essential information that is needed for all levels of educational managers to help the operations of all educational activities (Bright & Asare, 2019).

In Bangladesh, Ministry of Education (MOE) had established computerized EMIS funding by the Asian Development Bank (ADB) and World Bank in 2012 to facilitate policymakers, educational planners, and managers at all educational organizations in policy formulation and management of education system (English in Action, Workshop Report, 2013; EMIS CELL, DSHE, version v7.0). This EMIS is centralized system. All private colleges of Bangladesh are using this system for various purpose. For achieving sustainable development, Centralized EMIS in administrative and academic activities of the educational institute to increase right accumulation and providing of quality information required to help the preparation of education good policies of disseminating quality of education (Nkata & Dida, 2020).

Mainly, Successful Education Management Information System (EMIS) depend on System Quality (Syst. Q), Information Quality (IQ), Service Quality (SQ). For getting better net benefit form EMIS, It is essential good Complementary Technology Quality (CTQ), Computer Self-Efficacy (CSE), and higher User Satisfaction (US), Intention to Use (IU). Information system of an educational organization is transmitted the information for effective and efficient educational administration (Sambo, 2011). When organizational information system has provided right and upgraded information to the educational managers, they have to take better efficient decision-making (Christopher, 2003; Gedifew, 2014). Effective EMIS is needed for achieving authentic, best quality, reliable information. For this reason researcher wants to evaluate the existing Education Management Information System based on the perceptions of principles at non-govt. College in Bangladesh. This study is conducted by quantitative method. In addition, there is insufficient research conducted in the Education Management Information filed in the Bangladesh context. So, there is necessity to study the evaluating of EMIS in Bangladesh.

II. REVIEW OF LITERATURE

2.1 Complementary Technology Quality (CTQ)

The Complementary Technology Quality measurement criteria are the adequate software on this device (desktop, laptop, and mobile device), the device of hardware (desktop, laptop, and mobile device), the speed of the internet connection, the reliability of the internet connection (Teece, 1988 cited in Alamilla et al. 2017). Arthurs et al. (2019) found their study CTQ is satisfactory but it has to need improvement. Viveiros et al. (2018) found that CTQ had moderately satisfactory. Bowers et al. (2019) found that computer technology quality had highly satisfactory. Lopez et al. (2017) found that complementary technology quality is good. But, in their study, Banner et al. (2019) found that the complementary technology quality had moderately neutral.

2.2 Computer Self-Efficacy (CSE)

Self-efficacy is a measure of a user's confidence in his /her ability to use technology (Taylor and Todd, 1995). In the context of using computers and IT, CSE is defined as a judgment of one's capability to use a computer and is a necessary preceding of perceived usefulness (Compeau & Higgins, 1995). CSE focuses on the self-efficacy of the users and the influence it causes on their expectations (Alamilla et al., 2019). Reneau et al. (2019), Arthurs et al. (2019), and Idowu et al. (2018) found that the average value of measuring the Computer Self-Efficacy is satisfactory level but Arthurs, et al. (2019) suggested that it has to needs improvement. Alamilla et al. (2017), and Bowers, et al. (2019) found that users' self-efficacy has a highly satisfactory level. In contrast, Urbina et al. (2019) found that the Computer Self Efficacy of employees doesn't have as high satisfaction. Viveiros et al. (2018) found that computer self- efficiency doesn't have a satisfactory level.

2.3 System Quality of EMIS

System Quality has a very user-friendly, high-speed information access and very good usability among the system and the users (Bower et al., 2019). According to the DeLone and McLean (2003) model, system quality indicators consist of ease of use, response time, reliability, flexibility, and security. Al-Shibly (2011) noted that System Quality is easy to use, user-friendly. High-quality management information systems mean high quality of information, various types of managers support (Sergii, Yuliia, Olena, & Nataliia, 2019), perceived usefulness, decision-makers satisfaction, and enhance excellency of managerial decision (Al-Mamary et al., 2013; Bright & Asare, 2019). Saarinen (1996) argues that measuring information quality is constantly based on users' understandings of the features of the system. The common measures for system quality that are used and adopted by the researcher are responding time, reliability, ease to use, user-friendly, high-speed information access, flexibility, and security.

Using a quantitative method at the Central Bank of Belize, Reneau et al. (2019) showed that the system quality provided by the IS is generally satisfactory. Cruz et al. (2019) and Viveiros et al. (2018) claimed that average system quality had moderately satisfactory. Bowers et al. (2019) found that the system quality of users had highly satisfied. The same result had been founded by the study of Urbina et al. (2019), Banner et al. (2019), Sho et al. (2018). In contrast, Perera et al. (2017) showed that the average system quality for Moodle has a neutral position in the University of Belize Learning Management System. But, Tillett et al. (2017) found that users have dissatisfied with the system quality of the model.

2.4 Information Quality of EMIS

Information Quality (IQ) is the desirable characteristic of the MIS outputs (Al-Mamary et al., 2013). Al-Mamary et al. (2013) had adopted measures for information quality that are accuracy, completeness, conciseness, consistency, relevance, and timeliness, amount of information, accessibility, and understandability. Good quality information would be accurate, quantitative, verifiable (testable), accessible, precise free from bias, timely clear, appropriate, and comprehensive (Stator and Grudints, 1983 cited in Bright and Asare, 2019). Al-Adaileh (2009) had selected ten characteristics to disclose the information quality including simplicity, relevancy, accuracy, verifiability, timely, security, completeness, reliability, accessibility, and flexibility in his research. Petter et al. (2008) noted the characteristics of IQ are relevance, understandability, accuracy, conciseness, completeness, currency, timeliness, and usability. So, the common measures for information quality that are applied and adopted by researchers are timely availability, accuracy, and reliability, relevance, sufficient, accessibility, and understandability.

There is various levels' measurement result of information quality which have been gotten by the researchers. Banner et al. (2019) found that the point of users' view of the information quality has indicated fairly high. Bowers et al. (2019) and Sho et al. (2018) identified that the information quality of users by information system has a highly satisfying level. On the other hand, using a quantitative method at the Central Bank of Belize, Reneau et al. (2019) showed that the IQ provided by the Information System is generally satisfactory level. But, Urbina et al. (2019), Viveiros et al. (2018), and Lopez et al. (2017), in their study, found that the information quality of the system has a moderately satisfying level. In contrast, at the context of Belize, Perera et al. (2017) identified that quality of information is a more neutral position.

2.5 Service Quality of EMIS

Service Quality is the deals with the service providers and their activities of support whenever a problem is face within the EMIS. According to Petter et al. (2008), SQ is the quality of the help that system users accept from the IS department and IT support personnel for instance responsiveness, accuracy, reliability, technical competence, and empathy of the personnel staff. In this study, the researcher has adopted the measurement instrument of DeLone and McLean (2003) model and Chang, Wang, and Yang (2009) which is followed by Bowers et al. (2019).

There are many scholar researchers has found mixing result of service quality about the IS in their study. Sho et al. (2018) identified that service quality is excellent. Bowers et al. (2019) found that users have highly satisfied with the service quality of their information system. Using a quantitative method at the Central Bank of Belize, Reneau et al. (2019) found that the SQ provided by the information system is generally satisfactory. But, Perera et al. (2017) indicated that the SQ average for Model has shown a neutral position. Banner et al. (2019) showed that SQ has moderately neutral. Cruz et al. (2019) found that service quality has a lower position.

2.6 System Use of EMIS

Use of system is that the dimension and process during which employees and customers using capacity of a system. For example the amount of use, frequency of use, nature of use, appropriateness of use, the extent of use, and purpose of use (Petter et al., 2008). This is to measure how well the EMIS works and how effective the users use it. However, it measures the efficient flow and actual use of users' expectation. Empirical researches have adopted various measures of IS use, including the intention to use, frequency of use, self-reported use, and actual use (Petter et al., 2008 cited in Stripling, 2017). In this study, the researcher has adopted the DeLone and McLean model (2003) and followed the measuring criteria of Balaban, Mu, and Divjak (2013) and Rai et al. (2002).

Using a quantitative method at the Central Bank of Belize, Reneau et al. (2019) found that the average mean score of the Use of Information System is very satisfactory. Lopez et al. (2017) found that the use of the information system has a good position. Banner et al. (2019) found that the uses of system average value indicated fairly high. In another inquiry, Russell et al. (2017) found that the use of the e-commerce system is at a satisfactory level. Viveiros et al. (2018) found that the use of the Open EMIS has moderate satisfaction. As opposed to, in the context of University of Belize, Perera et al. (2017) found that the average use of Moodle has shown a neutral level. But, Cruz et al. (2019) found that the average mean score of uses of information systems has a lower position. Idowu et al. (2018) found that the average mean score of the use of information systems does not have a satisfaction level.

2.7 User Satisfaction (US) of EMIS

User satisfaction holds the nostalgic feeling of the users to the IS which examines the overall satisfaction of utilizers with the effectiveness of the procedure and its aspirations of its users (Alamilla et al., 2019). US is the satisfaction position of users with reports, Web sites, and support services of an information system (Sebetci & Çetin 2015). According to DeLone and McLean (2003), this variable is related with user perceptions towards a specific IS. Bailey and Pearson (1983) cited in Saarinen (1996) again noted that US is the range of users' confidence about the proficiency of the IS available at their disposal to fulfil their demand of information. In this study, the researcher has adopted the scale of Sddon and Yip (1992).

Urbina et al. (2019) found that the average mean score of user satisfaction has a significant satisfaction level. Bowers, et al. (2019) and Idowu et al. (2018) found that the use of the information system has a highly satisfying position. Using a quantitative method, Reneau et al. (2019), Viveiros et al. (2018), and Arthurs et al. (2019) revealed that the total mean score of the user satisfaction of information system has a generally satisfactory level. Russell et al. (2017) found that E-commerce has a moderately satisfactory level of user

satisfaction. In addition, Banner et al. (2019) and Lopez et al. (2017) found that user satisfaction has to be at a neutral to a low positive level of quality. In contrast, Tillett et al. (2017) found that most of the users are not satisfied with the overall model system.

2.8 Perceived Net Benefits (PNB)

Net benefits are the range to which Information System is supporting to the success of individuals, groups, institutional, entrepreneurs, companies, and nations. Perceived Net Benefits will overall measure the objectives and achievements the employees have with the EMIS. This will help to determine the organizational goals achievements, training, productivity, job enhancement, end-user goal achievement, performance but overall the organizational cost (Bowers et al., 2019, Alamilla et al., 2019).

Higher education institutions handle information both financial, academic, and administrative, this is often sensitive information that's exposed to multiple vulnerabilities (Quintero, Pérez, and Silva, 2019). The Principals are the manager of colleges in Bangladesh. They handle both academic and administrative activities. The principal is implementing effective school management in their institutes. For the Implementation of effective school management, the principals need to take decisions making, communicating, directing, and improving the staff, resolve problems, and evaluating educational functions (Sunaengsih, 2019).

MIS provides the necessary information and disseminates it timely and accurately to managers at all levels to take setting for planning, directing, organizing, and controlling the functions (Bee & Bee, 1999; Sidhu, Sharma, Shiny, & Shivan, 2015). It is noted that all educational organizational decisions are directly and indirectly related to development for academic functions. Johnson (2019) stated that all decisions relate directly or indirectly to broader management functions: planning, organizing, leading, staffing, and controlling.

In the Perceived Net Benefits measure, Al-Shibly (2011) and Tansley, Newell, and Williams (2001) argued that the quality MIS help job performance, organization achieve its goal, improve the assessment and training, increases individual productivity, enhances recruitment and performance management, an organization on costs.

In this study researcher has adopted the perceived net benefits measuring (academic and administrative) criteria that are academic decision, increasing service quality, improving job performance, administrative decision, institutional planning, organizational performance, speed up duties, proper staffing, lead in an institution, controlling, administrative efficiency and effectiveness in college.

In the Online Banking Information System, Alamilla et al. (2017) found that net benefits are highly good. Bowers et al. (2019) and Sho et al. (2018), in their study, found that the net benefits of the information system of users have a highly satisfying level. Appling a quantitative method at the Central

Bank of Belize, Reneau et al. (2019) found that the Perceived Net Benefits of information system has generally satisfactory level. Russell et al. (2017) found that the net benefits of e-commerce have moderately satisfactory. On the other hand, the researchers of Banner et al. (2019), Lopez et al. (2017), and Perera et al. (2017) found that the net benefits have to be at a neutral to a low positive level of quality. Tillett et al. (2017) found that average net benefits are below neutral and the model has helped to academic activities.

III. MATERIALS AND METHODS

3.1 Research design and Methods

In this study, descriptive research design is applied to realize its objective. According to Creswell and Creswell (2017), descriptive research design refers to a framework within which the research is conducted, and also involves the guide for data collection for a study. It is appropriate as a result of it shortening bias and heightening reliability.

The researcher of this study has adopted quantitative method. Quantitative research is based on a statistical analysis of numerical data, that's simply descriptive and successful simplest of reporting associations, while qualitative research is primarily based totally on the conceptual analysis of narrative and description (Boulton & Fitzpatrick, 1997; Jones, 2007; Al Koofi, 2007). Since this study is based on quantitative variables, it is the opinion of the researcher that the quantitative method is best appropriate to the task.

3.2 Target population

In this study, the target population comprised of 1901 principals of non-govt. college (MPO listed) in Bangladesh which were the population units for the study. The researcher collected the list of non-govt. colleges (MPO listed) from EMIS cell in 2016. Primary data were colleted from July, 2020 to December, 2020.

3.3 Sampling procedures and Sample size

For selecting the sample size, the study adopted a probability random sampling method to ensure so as every member is given an equal chance. The following formula has been used in determining sample size (Cochran, 1977; Kalton, 1983).

$$n_0 = \frac{z^2 \times p \times q}{a^2} = 96$$

$$n = \frac{n_0}{1 + (n_0 - 1)/N}$$

Where, n_0=primary estimated sample size; p=the probability; q = (1-p) is the reverse probability; z=the area of the standard normal curve under certain confidence limit; a=the desired level of precision; N=population size and; and n=sample size.

N= 1901; Let, P= 0.5, q= (1-0.5) = 0 .5, Z=1.96

$$n_0 = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.10)^2} = 96$$

$$n = \frac{n_0}{1 + (n_0 - 1)/N} = \frac{96}{1 + (96 - 1)/1901} = 92$$

3.4 Data collection procedure

For data collection, the researcher developed the questionnaires on the basics of the literature review. The data collection was carried out through a structured interview questionnaire. The interview questions of the study have been measured on an interval scale of five points.The researcher conducted the interviews by face-to-face and mobile (cell phone) communication supported by six assistants.

3.5 Data collection source

The researcher engaged in both primary and secondary data. The source of primary data was obtained from the principals of private college. Secondary data were obtained from the various reports, books, journals, and conference papers, and other available data schedules that were relevant for this study.

3.6 Instruments of data collection

The researcher had developed the interview questionnaire to get the opinions of data users about the measure and influence of EMIS in college administration. Five points Likert scale was utilized to point out the extent to that the respondents agreed or disagree and good or poor with the statements applied to measure the constructs. The items evaluating service quality, system quality, information quality, intention to use, and user satisfaction were accepted from the updated model of D & M (DeLone and McLean, 1992) whiles Complementary technology quality, computer self-efficacy were adopted from consequently Teece, (1988) and Compeau & Higgins, (1995). Again, Net benefits (academic and administrative) were also adopted D& M model, Al-Shibly, (2011); Tansley, et al. (2001), and review of the literature.

3.7 Data analysis techniques and presentation

After collecting data and information from the study area through interview questionnaires these data have been carefully checked, reviewed, tabulated, and analyzed. In this study, the researcher had used the SPSS Version 20 for data analysis.

The examine additionally hired descriptive statistics together with frequency distribution, mean, percentages, standard deviation, and to give an explanation for the distribution of scores, and presentation tables had been used for receiving of the results.

3.8 Reliability of data

In this study, Cronbach's Alpha values of NGC are higher than 0.7 (shown Table 2). The study has employed the "Cronbach alpha coefficient" for assessing the reliability of the scale. According to Durrheim & Painter (2006), an instrument with a coefficient of 0.70 and above is considered to be reliable (Hair et al., 2017). The results, therefore,

implied that the instruments could be applied to collect data hence adopted for the study.

3.9 Validity of instruments

The next procedure is to measure the validity of reflective indicators by examining the average variance extracted (AVE) (Hair et al., 2014). According to Hair et al. (2017), an instrument with an average variance extracted (AVE) above 0.5 is considered to be valid. In this study AVE values of NGC are above 0.5 (shown Table 2). So, all instruments are accurate in this study.

IV. RESULT AND DISCUSSION

Table 1: General Information

Gender	Age	Education	Work Experience
Male= 92	35-45 = 4(4.3%)	MA = 43 (46.7%)	1-5 years = 19.57%
	45-55=55 (59.8%)	MSS = 11 (12%)	6-10 years = 29.35%
	55 & Above = 33 (35.9%)	M.Com/ MBS/MBA =16 (17.4%)	11-15 years = 17.39%
		MSC =21 (22.8%)	16 years & Above = 33.70%
		MPhil/ PhD = 1 (1.1%)	

Table-2: Results

Construct	Item no	Mean score	Standard deviation	Cronbach's Alpha	AVE	N	Decision
Computer Technology Quality (CTQ)	4	3.394	.818	.92	.80	92	Neutral position
Computer Self-Efficacy (CSE)	10	3.703	.845	.94	.65	92	Moderately good.
System quality	7	3.484	.904	.92	.67	92	Neutral position
Information Quality	6	3.685	.793	.92	.70	92	Moderately good.
Service quality	4	3.101	.763	.87	.72	92	Neutral position.
Intention to Use	4	3.435	.668	.87	.73	92	Neutral position
User Satisfaction	4	3.647	.801	.90	.77	92	Moderately good
Perceived Net Benefit	10	4.009	.789	.94	.64	92	Good level.

The mean score of The Complementary Technology Quality (CTQ) is 3.394 and standard deviation 0.818 (See Table 2). This study found that CTQ of NGC is neutral position but it is shown that the CTQ is positively increasing position. This finding has been associated with the previous findings of

Reneau, et al. (2019), and Cruz, et al. (2019), Arthurs, et al. (2019), Russell, et al. (2017). In Bangladesh, there are lacking of adequate hardware device and Software on using the device and absenting the good speed and reliability of the internet connection. For this reason, the CTQ in NGC is serially neutral position.

At the NGC level, the overall average mean score of CSE is 3.703 and standard deviation 0.845 (Table 2). So, the result of CES at the NGC level is moderately good. The result is associated with the previous findings of Reneau, et al. (2019), Arthurs, et al. (2019), Idowu, et al. (2018), Alamilla, et al. (2017), and Bowers, et al. (2019). All IT staff in NGC has not gotten ICT training properly. So, the CSE of IT staffs in NGC is not at a very good level. On the other hand, the findings of Cruz, et al. (2019), Viveiros, et al. (2018), Tillett, et al. (2017), Banner, et al. (2019) have differed the findings of this study. Their findings were not a satisfactory margin. ICT environments are important factors in increasing CSE scores. In Bangladesh, ICT environments are gradually positively improving. Thus, CSE positions in NGC levels may improve in the future.

The average mean score and standard deviation of system quality of EMIS in NGC level are gradually 3.484 and 0.904 (Table 2). Therefore, the result of system quality of EMIS in NGC is neutral position but it is increasing position toward good. This finding has been supported by Using a quantitative method, Reneau, et al. s(2019), Arthurs, et al. (2019), Idowu, et al. (2018), Russell, et al. (2017), Cruz, et al. (2019), Viveiros, et al. (2018), and Perera, et al. (2017). Therefore, the system quality of EMIS is not at a very good level.

The overall mean score is 3.685 and the standard deviation is .793 (Table 2) about the information squality in NGC. It is found that information quality at the NGC level is closely good. Hence, the result of the information quality of EMIS in NGC is moderately good (Table 2).This result is supported by adopting a quantitative method Reneau et al. (2019), Banner et al. (2019) Arthurs et al. (2019), Russell et al. (2017), and Idowu et al. (2018). In contrast, the different findings are found in the study of Perera, et al. (2017) in the context of Belize, Cruz et al. (2019), Tillett et al. (2017). They found that users don't have satisfaction with the information quality. But in the Bangladesh context, the IQ of EMIS is a good position.

In this study, the overall mean score is 3.101 and the standard deviation is .763 of service quality of central EMIS cell in NGC. Therefore, the result of the service quality of EMIS in NGC is neutral position (Table 2). These findings have been associated with the findings of the previous study of Reneau, et al. (2019); Arthurs, et al. (2019), Idowu, et al. (2018), and Viveiros, et al. (2018) Perera et al. (2017). On the other hand, Cruz, et al. (2019) and Tillett, et al. (2017) have found that users are dissatisfied with overall service quality. Therefore, it is expected that DSHE will increase the service activities of EMIS related functions.

In this study, the overall mean is 3.435 and the standard deviation is .668 of use of EMIS in NGC. The use of EMIS in NGC is in neutral position but it is slightly moving to positive (Table 2). This finding is associated with the findings of previous studies (Russell et al., 2017; Perera et al., 2017; Banner et al., 2019; Urbina et al., 2019). On the other hand, the present results show some conflicts with the results of previous studies (Cruz et al., 2019; Idowu et al., 2018; Tillett, et al., 2017). Thus, the users' capability to use overall the system is moving toward a good position. Quality training can improve the intention to use position.

The overall mean score of user satisfaction in NGC is 3.65 and the standard deviation is 0.80. The result of User satisfaction in NGC is moderately good level (Table 2). This study expressed that user satisfaction is moderately good at the NGC level. This finding is associated with the findings of previous studies (Urbina et al., 2019; Bowers et al., 2019; Idowu et al., 2018; Reneau et al., 2019; Viveiros et al., 2018; and Arthurs et al., 2019). In contrast, the present results show some conflicts with the findings of preceding studies (Tillett et al., 2017; Cruz et al., 2019). Therefore, in this study, users of the EMIS are satisfied.

In this study, the overall mean score of perceived net benefit in NGC is 4.009 and the standard deviation is 0.789 (Table 2). The result of the perceived net benefit of EMIS at the NGC level is good. These results represent the perceived net benefit of EMIS in the academic decision, individual job performance, and cost-saving of organization, administrative decision, institutional planning, organizational performance, administrative efficiency, and effectiveness. These findings are supported by the result of previous studies (Alamilla et al., 2017; Bowers et al., 2019; Sho et al., 2018; Reneau et al., 2019; Arthurs et al., 2019; Idowu et al., 2018; and Urbina et al., 2019). On the other hand, the present results show some differences from the findings of previous studies (Banner et al., 2019; Lopez et al., 2017; Perera et al., 2017; Tillett et al., 2017). Thus, the users of EMIS have gotten benefit in academic and administrative work at the college level.

V. CONCLUSION AND RECOMMENDATIONS

The study sought to evaluate the EMIS at the NGC level in Bangladesh. It is found that CTQ is neutral position, CSE is moderately good, System quality is neutral position but positive increasing, Information quality is moderately good, SQ is neutral position, System use is neutral position but slightly positive running to good, US is moderately good, and PNB is good position. So system users have felt the necessity of EMIS. The principals of NGC want to highly utilize the EMIS system. If the CTQ, CES, Sys.Q, IQ, SQ, and training quality will be improved the EMIS will have been highly helpful for using academic and administrative purpose at the NGC level in Bangladesh.

This study is time-bound for evaluating the EMIS of Bangladesh. Using this study, MOE and DSHE in Bangladesh can easily identify the problems of existing EMIS for effectively running this system. The findings of the study will be helpful for principals, policymakers, and the higher authority of the education department, several researchers, educationists, and social think tanks. This study will have been contributed to developing effective EMIS and used to improve appropriate plans, strategies, mission, vision, and policies for the digitalizing education system. This study will become helpful to identify the problem and develop the system quality, information quality, service quality of EMIS, and complimentary technology quality at the educational institutions in Bangladesh.

The study recommends that EMIS related training is continuously needed for principals of NGC and all administrative staff for professional development. The training agency of the education ministry should be through short targeted workshops and training beyond the basic and intermediate training of computer literacy. Moreover, the government should take crucial steps to ensure continuing the high-speed internet connection in the education ministry, DSHE, NGC. The study suggested that further studies will be done using structural equation model measuring the effect of EMIS on college level activities.

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