
E- Accounting Practices of Manufacturing Firms in Bangladesh



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ABSTRACT: Technology plays a key role in today's business environment. E-accounting practice is a newly emerging concept in the field of accounting. In accounting documents and records exist in digital form as a substitute for a paper. The purpose of this study is to investigate the E-accounting practices of manufacturing firms in Bangladesh.

The population of the study consisted of all listed companies have been operating in Dhaka Stock Exchange Ltd (DSE). Questionnaires were distributed among them through email; the researcher designed the questionnaire to target employees who worked at these companies.

The hypotheses of the study were tested using the appropriate statistical methods, which are demographic data, descriptive and reliability statistics, a correlation matrix, and regression analysis were used for the analysis. The software used was the IBM Statistical Package for Social Science (SPSS) version 25. The results of this study indicate that implementation of e-accounting practice at these companies caused to effect on properly implementing keeping document in digital form. Results also show that measures of practical e-accounting practices items are more closely associated with record keeping documents and will effect on using e-accounting systems in these companies. It is recommended that the national regulators in collaboration with the accounting bodies should organize accounting training programmes for top level managers of manufacturing firms on proper e-accounting practices.

KEYWORDS: E-accounting, Accounting practices, Manufacturing firms and Top level Managers

I. INTRODUCTION

Accounting is an integral part of any company's business, as it not only helps companies keep track of their financial numbers and transaction events, but is also in many parts a legal obligation. The rise of the Internet and digitalization have facilitated the spread of electronic accounting (E-accounting), or accounting software, which has helped companies automate their accounting processes to a large extent. While digitized solutions for accounting are becoming more prevailing there is also a rising demand for software that can provide a good user experience (Hassenzahl, 2008).

Accounting in general can be seen as an important business function for any economic entity, for two main reasons: first of all, it is legally required; secondly, it provides important financial information to an entrepreneur, which is essential in financial operations and decision-making. Many companies greatly rely on computers and software to provide accurate information to effectively manage their business.

A global application of e-accounting functions, accounting research and the accounting training and education through various computer based /internet based accounting tools such as digital tool kits, various internet resources, international web-based materials, institute and company databases which are internet based, web links, internet based accounting software and electronic financial spread sheet tools to meet the demand for modern and reliable information.

Today's world is internet driven world in which everything is enabled. In the same beat, now accounting is possible anywhere, anytime through internet which is known as online Accounting or E-accounting practices is new development in the area of accounting and there is lack of knowledge about this new concept. Thus the objective of this paper is to get familiarity with e-accounting practices among manufacturing firms in Bangladesh.

II. THE PROBLEM STATEMENT

A fundamental function of e-accounting structures is to avail accurate information to owners and managers of manufacturing firms operating in any business for aspects of financial and accounting practices that have changed by spread of electronic

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accounting systems. A number of firms have not given much attention to e-accounting record keeping in relation to their business transaction, despite its importance in the success of businesses. Do Bangladesh businesses have adequate e-accounting systems in place to produce the data needed by business partners? This is the major study question. It is crucial for the researcher to consider technology advancement and those who are able to maintain accurate e-accounting records in light of the answer to the aforementioned issue.

III. LITERATURES REVIEW

A number of researchers had conducted research studies on technological issues in different manners. The reviews of the past studies are essential for building up basis as well as hypothesis on any research study. The following studies are reviewed in this regard.

- 1) **Amiduet al. (2011)**, described electronic accounting as an accounting system that relies on computer technology for capturing and processing financial data in organizations. Conceptualizing e-Accounting to connote the application of computer technology in capturing an organization financial data might give it a narrow meaning. The reason is that it makes no recourse to other technologies.
- 2) **Abdul Ghani (2012)**, Financial documentation, review, reporting and evaluation through accounting operations are a corporate responsibility. Financial position means assessing a company's sustainability, prosperity, and profitability. Therefore, most companies use their data using machine-based information technology, especially electronic accounting systems that make extensive use of information technology, to design and provide clients.
- 3) **Deresee Lakew, Zerihun Biribirsa , (2017)**, study examined the financial record keeping and reporting practices of MSEs in west Oromia sub-region . 200 sample MSEs selected from 3 towns in west Oromia region are used for this study. The finding indicated that the majority of MSEs didn't keep regular accounting record and prepare periodic financial report. The main reason mentioned by the respondents includes: smallness of business, expensive of qualified accountants and lack of awareness about the benefits of accounting
- 4) **Esmeray and Esmeray, (2020)**, E-accounting involves making use of accounting software and computers to record, store and analyze financial data and it makes sure that the information of critical financial is controlled, accurate and safe from corruption of data.
- 5) **F. Hajera (2016)**, Drawbacks: a computer is used; it has its own problems with the implementation of the computerized computer accounting system; data can be lost due to faulty hardware or software. In addition, data loss or changes in data may occur as a result of fraud or misappropriation.
- 6) **Garedew Ganecho Gebremedihin, (2019)**, Examined challenges that affect the application of accounting practice of micro and small scale enterprises is common difficulties. To achieve the research objective the researcher applied descriptive research design, primary data were collected by using proportionate stratified sampling technique from samples of 209 owners. The result of the study concluded that respondents have understanding on contribution of accounting practice for growth of enterprises.
- 7) **Ghaffar et al., (2019)**, E-accounting adoption is critical to the firm's ability to handle all financial information and use it to make decisions. As a result, the business may be well taken care of, and the profitability of firms, particularly manufacturing firms, can be improved. E-accounting adoption is defined as using a computer (software and hardware) for financial reports preparation and accounting works at organizations whether the accounting software is built in the firm or developed by a vendor
- 8) **Hajera, (2016)**, One of the aspects of information technology effect on enterprises and institutions is quantitative and qualitative changes of information and accounting management systems. The leading developments are that of data and activity exchange, as well as the expansion of intranet and internet information networks. Consequently, we can claim that the role of electronic information networks in releasing financial and business information of the organization is unavoidable.
- 9) **Muhrtala and Ogundeji (2013)**, Describe e-Accounting as a system that handles both financial and nonfinancial transactions that directly affects the processing of financial transactions. However, in the context of this study, e-Accounting refers to any accounting system that utilizes ICT applications tools and devices in gathering, recording, analyzing, processing, interpreting, communicating accounting transactions and information concerning economic events to enable stakeholders to make informed decisions.
- 10) **Onaolapo ,(2014)**, Asserts that record keeping gives substantial information about the financial strength and current performance of an enterprise and therefore managers find those records useful in making decisions. Complementarily.
- 11) **Patel. K.J. (2011)** Expressed his views in his research article entitled "adoption and Impact of E-Accounting",that, how E-

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Accounting is adopted in any type of business organization. He also explained the overall impact of E-Accounting in the business concern.

- 12) **Romney and Steinbart (2012)**, an information system organized means of collecting, entering, and processing data and storing, managing, controlling, and reporting information so that an organization can achieve its objectives and goals for manual accounting system.
- 13) **Tijani and Mohammed (2013)**, Define e-Accounting as a system that is significantly enabled by computer technology designed in accordance with techniques relevant to achieve qualitative decision-making objectives of the business.
- 14) **Sekyereet al. (2017)**, Identify certain determinants variables of the computerized accounting system variables such as perceived usefulness, perceived ease of use and its effect on the accurate financial report in listed organizations.

Whereas this present study makes an expression on both quantitative and qualitative characteristics of electronic accounting practices manufacturing firms in Bangladesh. Through this accounting system, the companies or accountants can practice their accounting functions or accounting information systems (AIS) using ICT. Organizational financial transactions are recording, classifying and summarizing using ICT without any paper and to access anywhere they wish at any time.

IV. OBJECTIVE OF THE STUDY

The major objective of the study is to examine and evaluate the current status of adopting and implementing the e-accounting practices of manufacturing firms in Bangladesh. The research work entailed the following three specific aims. Each research aim was pursued in the manufacturing firms enlisted under Dhaka Stock Exchange Ltd by using appropriate scientific survey methods and materials.

- ❖ To determine the extent to which record keeping and basic source of e- accounting procedure have been fulfilled in firms?
- ❖ To examine the challenges facing companies' new area of accepting e- accounting.
- ❖ Finally, what are the affecting properly applying e-accounting practices in firms?

V. RESEARCH HYPOTHESIS

The following null hypotheses have been developed and examined by this research study:

- H₁ There is no significant difference in factors influencing the adoption of e-accounting record keeping and practices in the selected firms in Bangladesh.

VI. METHODOLOGY OF THE STUDY

This study used quantitative methods and data collected through a questionnaire where the forms were distributed to the respondents to investigate the implementation of e- accounting practices among manufacturing firms in Bangladesh.

A. Study Area

The study was conducted in manufacturing industries enlisted under the Dhaka stock Exchange Ltd of Bangladesh. The area was chosen for this study because it is the growing up of a number of industrial in the country. It thus, makes it a viable source of information for this research.

B. Mode Of Investigation

The survey approach was adopted for this research. This approach enabled the researcher to collect large amount of data in a short time for fairly low cost (Kelly, Clark, Brown & Sitzia, 2003).

C. Sample And Sampling

The population of the study consisted of all listed companies have been operating in Dhaka Stock Exchange Ltd (DSE). Questionnaires were distributed among them through email; the researcher designed the questionnaire to target employees who worked at these companies.

D. Instrumentation And Data Collection

Based on the research objectives, an online survey questionnaire was developed. The questionnaire was divided into three sections: the demographic profile of respondents, practical e-accounting practices items, and challenges faced by manufacturing firms in keeping proper accounting records and the properly implementing e-accounting practices to firms. The questionnaires were personally administered by the researcher to 300 employees of firms. The questionnaires were distributed and left with respondents for a week to allow them enough time to respond in good faith. A total of 270 of the distributed questionnaires

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were returned and were accepted as complete for the purpose of data analysis. This gave a return rate of 90%. Participation in the survey was voluntary and the respondents were assured of confidentiality.

E. Data Analysis Technique

Data from the field were modified and implied appropriately to make meaning out of them. Editing was done to correct errors, check for non-responses, and accuracy of answers. Coding was done to facilitate data entering and comprehensive analysis. Demographic data, descriptive and reliability statistics, a correlation matrix, and regression analysis were used for the analysis. The software used was the IBM Statistical Package for Social Science (SPSS) version 25.

VII. DATA ANALYSIS AND DISCUSSION

As part of the study, demographic data, descriptive and reliability statistics, a correlation matrix, and regression analysis of the relationships between the dependent variable and the independent factors as well as between the independent variables themselves will be presented.

A. Demographic Information Profile

This section demonstrated and accordingly explains results on manufacturing enterprises demographic characteristics for e-accounting practices.

I. TABLE: GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	M	186	68.9	68.9	68.9
	F	84	31.1	31.1	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

Table 1 demonstrates that gender participation (68.9%) of the respondents are male and (31.10%) of the respondents are female manufacturing firms are practices e-accounting by male compared to female respondents. This finding is similar with the survey by which showed that male entrepreneurs were more likely to start a business compared to male respondents..

II. TABLE : AGE GROUP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-29	36	13.3	13.3	13.3
	30-39	80	29.6	29.6	43.0
	40-49	54	20.0	20.0	63.0
	50-59	65	24.1	24.1	87.0
	Above 60	35	13.0	13.0	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

The table 2 the Age group of the respondent shows that 21 up to 29, (13.3%), 30 up to 39, (29.6%), 40 up to 49, (20.0%), 50 up to 59, (24.1%), and Age above 60, (13.0%). This indicates that majority 30-39 age group stage of software users.

III. TABLE :CAREER LEVEL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DA	80	29.6	29.6	29.6
	DF	54	20.0	20.0	49.6
	DIA	69	25.6	25.6	75.2
	DA	36	13.3	13.3	88.5
	Others	31	11.5	11.5	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

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As evident from Table 3, the respondents were also established to specify their career level. The results showed that, 29.60 percent of the samples were Director Accounts (DA), 20.00 percent were Director Finance (DF), 25.60 percent were Director Internal Audit (DIA), 13.30 percent were Director Admin (DA), and 11.50 percent were others. To conclude, the greatest of participants in this career level had Director Internal Audit (DIA).

IV. TABLE : LEVEL OF SPECIALTY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Management information system	48	17.8	17.8	17.8
	Information Technology	51	18.9	18.9	36.7
	Accounting information system	71	26.3	26.3	63.0
	Administration science	43	15.9	15.9	78.9
	Basic technology	57	21.1	21.1	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

With reference table 4 to respondents' level of specialty background, most of the respondents (26.30%) had up to accounting information system (AIS). The second largest group of respondents (21.10%) had up to basic level of technology, 18.90% of them had information technology (IT) level specialty, 17.80% of them had management information system (MIS) level specialty and the remaining 15.90% of respondents had administration science (AS) level specialty.

V. TABLE : YEARS OF EXPERIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-4	41	15.2	15.2	15.2
	5-9	63	23.3	23.3	38.5
	10-14	76	28.1	28.1	66.7
	15-19	58	21.5	21.5	88.1
	20-Above	32	11.9	11.9	100.0
	Total	270	100.0	100.0	

Source: Author field data, 2022

According to table 5, reveals the respondents were asked to specify their years of experience, and the results showed that 15.20 percent of the responses had less than 4 years, 23.30 percent had between 5 to 9 years, 28.10 percent had between 10 to 14 years, 21.50 percent had between 15 to 19 years, and 11.90 percent had more than 20 years job experience. This indicates that majority experience operated on (10-14).

Refer to Tables 1, 2, 3, 4, 5 and 6 which shows the respondents' demographic profile information there was significant level difference level of top managers are practices e-accounting systems.

B. Reliability And Descriptive Tests

Table 6 shows the summary of reliability analysis for the research variables. The reliability method is used to identify the correlation value between scores for each item. By conducting this procedure, the items with high correlation values with the test index score have high reliability whereas items with low correlation values have low reliability and will be discarded from the test. This process is known as the internal consistency approach (Chan, 2006). Based on the given table, the Cronbach alpha value score is between 8.00-9.00, which indicated the very good association as ruled by (Hair et al, 2016).

VI. TABLE: RELIABILITY AND DESCRIPTIVE TESTS

Variables	Cronbach's Alpha	Mean	Std. Deviation	N of Items	Strength of association
X1	.913	3.60	1.110	3	Excellence
X2	.842	3.64	1.086	2	Excellence
X3	.963	3.70	1.087	4	Excellence

Source: Author Field Data, 2022

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The result indicates good strength of association for the Cronbach's Alpha value for the 11 items as stated in Table 6. The strength of association result shows that the dependent variable is ranged as excellent and the independent variable is excellence. . In terms of descriptive statistics also shows that X₃ had the highest mean (3.70), followed by X₂ with a mean of (3.64), and X₁ with a mean of (3.60) but the values of standard deviation are poor in this regard that supports the perceptions of the respondent about the using of e-accounting practices in making manufacturing firms decisions are significant.

C. Correlations Matrix Tests

In order to detect a possible relationship between the different variables the following correlation matrix are:

VII TABLE: Correlations Matrix

	X ₁	X ₂	X ₃
X ₁	1.000		
X ₂	.981	1.000	
X ₃	.953	.953	1.000

Source: Author field data, 2022

Apart from validity assessment of the measurement model, we performed a check for multicollinearity among the variables. A correlations' matrix was used for determining the relationship among all the variables. As Table 7 displays, the highest correlation 0.981 existed between practical e- accounting practices items (X₁) and approach of record keeping document (X₂) and the lowest correlation 0.953 existed between approach of record keeping document (X₂) and factors affecting properly implementing e-accounting adoption (X₃). In total, these correlations indicate that multicollinearity.

D. Multiple Regressions Tests

Regression analyses were calculated by using enters method and the following results have been drawn:

VIII TABLE: MULTIPLE REGRESSIONS ANALYSIS

Variables	Beta	t	Sig.	Adjusted R ²	R ²	"F" value	F" sig	Results
X ₂	.816	21.638	.000	.983	.967	3857.630	.000 ^b	Supported
X ₃	.195	5.164	.000					Supported

a. Dependent Variable: X₁

Source: Author field data, 2022

Based on regression result presented in table 8, a unit increase in approached of record keeping document (X₂) increases e-accounting practice by .816 percent, showing that X₂ has a significant effect on e-accounting practice in the selected manufacturing firms under enlisted DSE also increases practice decision. The analyses indicate that e-accounting practice is significantly related to e-record keeping document at 0.000 percent. On the other hand, a unit increases in e-accounting practices in manufacturing firms by 0.195 percent, which signifies a positive significant relationship between e-accounting practices and factors affecting properly implementing e-accounting adoption (X₃) is a key determinant of e-accounting practice in Bangladesh manufacturing firms.

More so, results presented in table 8, with the coefficient of determination (R²) of 0.967, Adjusted (R²) at 0.966 indicates that independent variables incorporated into this model have been able to explain the differences in factors influencing adoption of E-accounting practice in selected sampled manufacturing in Bangladesh. This is further supported by and F-Value of 3857.630 and P-Value (0.000). The constant and coefficients are statistically significant. Due to this result, the null hypothesis is rejected while the alternative hypothesis is accepted indicating the fact that there is a significant difference in factors influencing e-accounting practices in manufacturing companies in Bangladesh.

VIII. CONCLUSION AND RECOMMENDATION

This paper examined the e-accounting practices of manufacturing firms drawing on a survey of 270 top level managers in manufacturing firms under enlisted DSE in Bangladesh. The results revealed that majority of firms in the Bangladesh are male top managers are maintained e-accounting practices having about 70 percent. The results also revealed that majority of companies keep proper e-accounting records pertaining to their business. However, minority of the firms kept records of their

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business using the electronic based system. This category of firms maintained e-files of invoices and receipts, journals, ledgers, vouchers, cash book, payroll records and assets register. Also, in most cases owner-managers are in charge of the book keeping and accounting functions for their business.

The results of the analysis revealed specific considered factors influencing electronic accounting practice in the selected sampled firms such as practical e-accounting practices items (X_1), approach of recordkeeping document (X_2) and factors affecting properly implementing e-accounting adoption (X_3). The results showed that there is a significant difference in the factor influencing the acceptance of e-accounting. These results are supported by earlier studies of Munasingbe (2015), Padachi (2012), Sekyereet al. (2017) shedding light on e-accounting adoption variables and at different levels of their influence on e-accounting practices. Findings revealed that electronic accounting practice positively influence the financial reporting quality of selected sampled firms in Bangladesh.

The study concluded that all the identified variables X_1 , X_2 and X_3 influenced e-accounting adoption and that e-accounting practice enhanced accounting procedure and improved the timeliness of report generation and financial reporting quality of sample firms. In view of the above finding the following recommendations were made:

- ▶ To level management of Bangladesh manufacturing firms are enjoined to put more effort by developing mechanism that strengthens e-accounting usage to promote users confidence on the financial information of firms.
- ▶ Teamwork among manufacturing firms should be maintained by information technology firms in order to make electronic accounting spread across and meet the quality of financial report needed by Stakeholders.
- ▶ Lastly, national regulators such as Bangladesh Securities Exchange Commission (BSEC) and Dhaka Stock Exchange Ltd (DSE) in collaboration with the Institute of Chartered Accountants Bangladesh (ICAB) should organize accounting training programmes for top level managers of manufacturing firms to provide them with basic e-accounting knowledge and skills.

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Appendix		
E-Accounting in the Selected Sampled firms of Bangladesh		
Part II - Questionnaire		
1.	Practical e-accounting practices items	Do you maintain a record of all the assets and liabilities of the companies that support your accounting software?
		Do you maintain all of your receipts and invoices for transactions in a well-organized software system?
		Does your business provide customers with a digital receipt?
		Does your business execute all transactions involving digital financial data?
2.	Approaches of Record Keeping document	The paper based system
		The computer based system
	Factors affecting properly implementing e-accounting adoption	How to prepare for financial reporting challenges facing on digital platforms in firms?
		Entrepreneurs' skepticism has a negative impact on maintaining electronic data.
		It increases the reliability, accuracy and mobility level of transaction and reporting.



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