

UTTARA UNIVERSITY



Project Report

On

“The future of Accounting Information System in Bangladesh.”

Submitted to:

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Date of Submission: 30th August, 2020.

Letter of Transmittal

Md. Mohedul Islam

Assistant Professor of Accounting

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Subject: Submission of Project Report.

Dear Sir,

It is my pleasure to submit you my project report entitled “ **The future of Accounting Information System in Bangladesh.**”The purpose of this report was to fulfill the partial requirement the degree of Masters of Business Administration (MBA).

I would like to thank you for your support and guidance that you provided for this report completion. Without your help, it would have been impossible to complete. This has given me the opportunity to investigate the AIS in the financial organization of Bangladesh. I have tried to collect relevant information to make my report as analytical and reliable as possible. I have gathered huge knowledge and experience during my report preparation, which certainly offer assistance me in my proficient life.

I, therefore, would really be grateful if you enlighten me with your thoughts and views regarding the report. Thank you once again for your support and patience.

Sincerely Yours,

.....

Arif Ahmed

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Student's Declaration

I am Arif Ahmed, bearing ID: 2193061035, hereby declare that this project report entitled **“ The future of Accounting Information System in Bangladesh.”** has been prepared by me towards the partial fulfilment of the requirement for the award of the Masters of Business Administration (MBA) degree under the guidance of **Md. Mohedul Islam, Assistance Professor of Accounting, Uttara University.**

I also declare that this project report is my original work and has not been previously submitted.

.....

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Supervisor's Declaration

This is to certify that Arif Ahmed, ID: 2193061035, Batch: 50th (A), Program: MBA, Major in Accounting a student of Uttara University, Department of Business Administration has completed his Project report entitled “ **The future of Accounting Information System in Bangladesh.**”under my supervision. I am pleased to state that he has worked hard in preparing this report. The data and findings are presented in the report seems to be authentic.

I wish his every success in life.

.....

Md. Mohedul Islam

Assistant Professor of Accounting

Department of Business Administration

School of Business

Uttara University

Acknowledgement

In the present world of competition there is a race of existence in which those are having will to come forward succeed. Project is like a bridge between theoretical and practical working. With this I joined this particular project.

First of all, I would like to express my gratitude to Almighty Allah to enabling me to complete this report on "The future of Accounting Information System in Bangladesh." Next to him are my parents, whom I am greatly indebted for me brought up with love and encouragement to this stage.

Successfully completion of any type of project requires helps from a number of persons. I have also taken help from different people for the preparation of this report. Now, there is a little effort to show my deep gratitude to that helpful persons.

I convey my sincere gratitude to my Academic Supervisor Md. Mohedul Islam, Assistant Professor of Accounting, Uttara University. Without his kind direction and proper guidance this study would have been a little success. In every phase of the project his supervision and guidance shaped this report to be completed perfectly.

At last but not the least I am thankful to all of my teachers and friends who have been always helping and encouraging me throughout the year. I have no valuable words to express my thanks, but my heart is still full of the favors received from every person.

Table of Contents

SECTION 1: JUSTIFICATION OF THE STUDY	2
SECTION 2: OBJECTIVE OF THE STUDY	3
SECTION 3: METHODOLOGY	3
SECTION 4: DISCUSSION	4
OBJECTIVE-1	4
OBJECTIVE-2	4
OBJECTIVE-3	5
Objective-4	5
SECTION 5: FINDINGS	7
SECTION 6: FUTURE FORWARD	10
SECTION 7: REFERENCES	11
SECTION 8: APPENDICES	12
APPENDIX I	12
<i>Introducing Consulted Articles</i>	12
APPENDIX II	14
<i>Compilation of Objectives/ Purposes/ Questions/Hypotheses Addressed by the Articles</i>	14
APPENDIX III	15
<i>Compilation of Methods</i>	15
APPENDIX IV	15
<i>Complication of Conclusions</i>	15

Acronym

1. AIS- Accounting Information System
2. ERP- Enterprise Resource Planning

Table of Contents

SECTION 1: JUSTIFICATION OF THE STUDY	2
SECTION 2: OBJECTIVE OF THE STUDY	3
SECTION 3: METHODOLOGY	3
SECTION 4: DISCUSSION	4
OBJECTIVE-1	4
OBJECTIVE-2	4
OBJECTIVE-3	5
Objective-4	5
SECTION 5: FINDINGS	7
SECTION 6: FUTURE FORWARD	10
SECTION 7: REFERENCES	11
SECTION 8: APPENDICES	12
APPENDIX I	12
<i>Introducing Consulted Articles</i>	12
APPENDIX II	14
<i>Compilation of Objectives/ Purposes/ Questions/Hypotheses Addressed by the Articles</i>	14
APPENDIX III	15
<i>Compilation of Methods</i>	15
APPENDIX IV	15
<i>Complication of Conclusions</i>	15

Section 1:Justification of the study(why are you motivated?)

This study reflects the current and future role of Accounting Information Systems by analysing the main responsibilities of accountants and financial professionals and defining the functionality of AIS. While many of the responsibilities are already supported by traditional technology answers, others represent challenges that do still not have appropriate responses and therefore deserve to be the focus of future research.

The study motivates to enlighten the target users about the potentiality of the accounting information system in the context of Bangladesh.To provide relevant information in time the financial institutions 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 financial institutions. But the information handling units of the financial institutions have not been properly organized. Rules and procedures have not been properly developed to guide information handling departments. Unfortunately still now many people and local organizations consider having an information system to manage the accounts sector as a wastage of money, a threat to their skills, as a result fraud cases, mismanagement of resources & lose of accounts data arise as well as the mismatch between the amount given in the tax file and the actual revenues & the assets of the organization.

The study is hoped to be significant to the management, accountants of different organizations, auditors, economists, financial analysts and other potential users of the accounting information system. It'll give its users a positive perception about the relevance of having a well organized accounting information system including its key features, advantages, effect on performance , productivity and profitability as well as advising general people about its benefit while making an error free financial report.

The study is also expected to provide practical guidance to convince small and medium business firms to adopt and implement an accounting information system. It would also provide practical contribution to effective application of accounting information systems in an organization's operating activities.

Finally the study is anticipated to be helpful to the students and the future researchers who want to research on this topic in future.

Section 2: Objectives

The main objective of this study was to examine the importance of the accounting information system on organizational performance in Bangladeshi organizations. Other specific objectives that were expected to be achieved from this study are-

1. Determining the effect of the accounting information system on the organizational productivity,
2. Dictating the role and effectiveness of the accounting information system that leads to better decision making by the management authority of an organization,
3. Ascertaining potential contribution of accounting information system on tax computation and avoiding mismanagement of accounts data,
4. Identifying challenges that may arise during implementation of accounting information system

Section 3: Methodology

This study had been conducted by analyzing 10 journal articles of famous researchers who have previously conducted several researches on the same field. These articles are retrieved from renowned websites like researchgate.net, sciencedirect.com etc. the study is based on the theoretical analytical approach to reach the results by reviewing the previous studies and concept of accounting information systems, the quality of accounting information systems, and the nature of the relationship between accounting information systems and profitability of companies and decision making.

The data was organized according to the relevance to the study about to be conducted. Data processing was done non-analytically to achieve the goal of the study.

Section 4: Discussion

Objective 1:Current era is an era of interesting changes and challenges. Information technology is defining our modes of life and ways of thinking, that opens endless opportunities to expand intellectual, academic and professional visions. AIS has truly become information systems for decision making and control because of increasing applications of information technology. The literature review consists of 10 articles from different renowned researchers having different perceptions regarding involvement of technology in the business activities such as use of ERP and AIS.

Hernandez et. al, 2008) has defined An accounting information system as “ a unified structure within an entity, such as a business firm, that employs physical resources and other components to transform economic data into accounting information, with the purpose of satisfying the information needs of a variety of users”. They also called the support of information technology in accounting as the key to the survival and development of enterprises.

while According to **A.Susanto(2018)**, “Accounting Information System is a component of an organization that collects, classifies, processes, and communicates financial information and decision making that is relevant to external parties and external parties.” Regarding the effect of using information systems on the effectiveness of the organization’s management, decision making, productivity and internal control the perception of **Siyanbola & Tunji (2012)** was “Accounting information is said to be effective when the information provided by them serves widely the requirements of the system users. Effective information should systematically provide information which has potential effects on the decision making process of the following user groups- The Equity-Investors,The Loan-Creditors,The Employees,The Analyst/Adviser,The Business Contact group,Government, The Public.” According to them the AIS is only effective when the information preserved and displayed are useful to the internal and external users so it can be considered as obsolete if the information is not useful to them.

While the study of **Nnenna, (2012) cited in the article of Nser & Nassar (2018)** , implores to that,“The use of accounting information is vital in the Management activities of a company, given its quantitative information on various activities. Accounting information is primarily intended to be useful in economic decision-making.Accounting information is needed not only by management in the direction of cooperation but also by shareholders, who need periodic financial data in order to assess the performance of the company's management” .

Objective 2: A financial organization consists of different departments so it is also expected that they will have different but interdependent information systems that may have to preserve and show different information but work altogether in order to make reports

that may become helpful to both internal and external users. The study of **Keomorakath & Wahyu** displays that “a financial organization’s information system is the summation of 2 sectors-

Page no 04

1) Marketing and sale information system: stores the information of products and services (including both existing and declined ones), customer wants and needs, previous forecasts, information of selling, ordering etc.

2) Production and manufacturing information system : consists of necessary information for business planning, product development, to control the quality, productivity and effectiveness. This sector includes 2 different but interdependent systems-

- a) Accounting and finance information system- support asset and fund flows through out the organizations regular operations, keeps track of all the inflows and outflows (both current and historical data)
- b) The HR information system- records data of employees for example their skills, knowledge, performance, career development, compensation etc.”

Though these sectors seems to be independent and separate from one another but connected with each other through these systems-

- Transaction processing system is used by operational level employees to record day to day transactions such as- sales, purchase order, purchase returns, salaries and wages etc.
- Management Information System is used by middle level managers by providing present and previous performance as well as situations to do planning, controlling and decision making.
- Decision Support System or the business intelligence helps managerial level to take decisions for the situation that is uncertain and may change quickly in future. For example- many business organizations are altering their business activities temporarily due to covid19 pandemic situation.
- The Executive Support System helps the senior level management to create strategies, define trends for the long term of the environment and communications.

All of these researches were done on the effect of implementing AIS in the organization’s operational process but it also needs to be mentioned the relation between ERP and AIS to improve the performance and productivity of the financial organizations.

Objective 3&4 combinely Discuss:**Haleem et.al, 2020** explained that “The introduction of an ERP system to the business process reduces duplication of input information and helps to maintain accuracy. Meanwhile, it also reduces the cost of the business processes and facilitates the operation of the businesses in an electronic environment. Therefore, AIS plays a vital

role in providing accurate accounting information that helps to achieve the goals of the organization and improve the performance of the business.” it’s also mentioned in their article that, “AIS is the heart of the ERP system”.

According to **Grabski et.al (2011)** “ERP systems are typically the largest, most complex, and most demanding information systems implemented by firms, representing a major departure from the individual and departmental information systems prevalent in the past. Firms and individuals are extensively impacted, and many problematic issues remain to be researched. ERP and related integrated technologies are a transformative force on the accounting profession. As the nature of business evolves, accounting expertise is being called on to make broader

Page no 05

contributions such as reporting on nonfinancial measures, auditing information systems, implementing management controls within information systems, and providing management consulting services.”

Fernando & Antonio, Implored in their study conducted in **2013**, “Accounting information systems play a crucial role, providing information that helps the organization’s management to perform its duties to the fullest. Many researchers have pointed out that the success or failure of an organization in achieving its objectives mainly depends on the quality of the information. For Example- “The alignment of Business and Information Technology is still an important concern of both business and technological managers. Successful organizations depend on the alignment of these two worlds among its multifaceted dimensions (communications, competency/value measurement, governance, partnership, technological scope or skills) . Due to its difficulty and complexity, this task certainly needs fresh perspectives to accomplish it, for instance, valuing workforce incentives or the role of knowledge management in this alignment. Information technology, in particular its support to AIS, has proven to have a positive impact on companies’ performance and productivity.”

Additionally **P.Patel (2015)** examined the impact of accounting information systems on companies’ profitability in a studybased on the theoretical analytical approach to reach the results by reviewing the previous studies and concept of accounting information systems, the quality of accounting information systems, and the nature of the relationship between accounting information systems and profitability of companies and decision making. The result showed that there is an impact of accounting information systems on the profitability of companies and decision –making , also it

was found that the accounting information systems contribute to provide the necessary information to make financial and economic decisions.

In the world, It's obvious that the risk comes along with every benefit. Having a separate Information system is not different from this fact. It is a matter of risk for a financial organization when proper privacy and security is not maintained for the system by the financial organization. Privacy breach, hacking, theft etc are the risks that come along with the benefits of having an information system in a financial organization. Privacy breach and data breach sound a lot alike, A privacy breach occurs when someone accesses information without permission. It starts with a security breach ;penetrating a protected computer network and ends with the exposure or theft of data. the proportion of risk depends on the security measures taken. Such as- use of updated antivirus softwares, firewall etc. Specifically, **Richardson et al. (2019)** explored whether data privacy breaches impact organizations' abnormal returns, future accounting measures of performance, insider sales, internal control material weaknesses. Results indicate that, on average, the economic consequences of privacy breaches on firms' cumulative abnormal returns, future accounting measures of performance such as sale growth return on sales and operating expense, higher audit and other fees, and internal control weaknesses are generally very small.

Page no 06

Section 5:Findings

After analyzing the objective in the context of the scenario of the financial organization of Bangladesh it seems that-

1. Many organizations consider AIS and ERP as the same thing but the difference between ERP and accounting software is that accounting software generally covers areas like accounts receivable and payable, banking, financial reporting and some basic revenue/sales recording and tracking. Accounting software manages only a specific area of a business. ERP software on the other hand, will always include the functionality of accounting software, plus tools for managing the supply chain, logistical requirements, inventory, warehouse management, contact management, eCommerce and more. both of those have differences in their activities though some of them are the same. The basic concept in this system is to integrate the activities of AIS with ERP to make proper and error-free decisions. the most important concerns for accounting are- accounting operations (transaction processing, accounts payable and receivable, internal financial reporting), external reporting (statutory reporting, corporate finance, treasury and financial risk, and regulation, including internal audits, compliance with regulatory requirements and taxes), management accounting (forecasting, budgeting, costing and reporting on variances (cost control, detailed reports about performance against budget) as well as cash flow management),

management support (which includes identifying and analysing strategic options, decision support, designing and tracking key personnel indicators, benchmarking, strategic management accounting, and business risk management), staff management, training, scrutiny of capital projects, emphasis on customers and products, reports about debtor and creditor ageing, real time reporting, interactive reporting, auditing, internal controls implementation, risk management, error or fraud detection, accountability, among others. The system includes the most frequently used software tools and their most appropriate use. Previously accountants were not so familiar with all the software tools because they were using different software packaging in different organisations, but AIS accounting software comes as a full package of all the softwares that enables the user to perform the accounting work more effectively and efficiently. Using these systems, stakeholders can access solid accounting & finance data, information of management functionalities with real time reporting from anywhere there's an internet connection. For example- Currently in BD maximum financial and educational institutes use either their own ERP system or hire a third party to manage their Cloud computing activities. In Bangladesh most famous ERP software along with some of the user firms are -

- A. SAP- ACI Logistics, Bangladesh Bank, CEAT Bangladesh, Berger Paints Bangladesh Limited

Page no 07

- B. Tally- BGMEA, Artisti Collection Ltd., Prism Group, Dom-Inno Builders Ltd and the number of clients is increasing because of the cost effective and user friendly interface
2. In Bangladesh, Cloud computing brings impressive changes during the COVID19 pandemic situation. These influence many aspects on the way business is conducted, providing significant data in real time and anywhere to help decision makers, influencing communications between businesses and their customers. For example- during the crisis of COVID19 outbreak many people are working at home and they can work under a single system using their employee account id in the system, they use the real time data, analyze and make reports by using the data. As the system provides better and more timely information. In addition, devices remain connected to each other via network. Allowing companies to process an indefinite number of transactions occurring in different locations simultaneously within several minutes and keep track of every individual transaction and other information. This facilitates integration between different systems like AIS, operational systems and web applications that need to be updated continuously to make forecasts & decisions carefully also generally these systems are maintained using strict security measures so risk of losing

any information or getting hacked is lower than having a physical hardcopy. Also some of the financial institutions have taken initiatives to help customers regarding financial activities. Such as- BKASH has facilitated clients by providing opportunities to pay credit card bills from their accounts, also the clients can transfer funds from their respective bank accounts to their bkaash account and vice versa. These institutions are gaining trust of clients because of providing less troublesome and real time updated information and high end security system to ensure safety of the clients.

3. Web service has become a significant opportunity for some e-commerce firms such as- Daraz,Chaldal,Rokomari,Evaly etc as they can reduce the cost of physical location of both their office and warehouses because they don't need to keep inventories in the warehouse instead they update their website by adding product information, policies on behalf of their sellers and maintaining privacy and consumer right of buyers and keeping them notified about the products.
4. Information technology has also eased the auditing activities.To enhance capabilities and productivity, auditors need Computer Assisted Audit Tools and Techniques (CAATT) that can be implemented at minimal cost and relative ease, ranging from maximized use of standard office suite software to Audit Command Language (ACL) and Interactive Data Extraction and Analysis (IDEA) to extract and analyze data. This softwares reduces error in the evidence of transactions since auditors don't have to go for investigation of documents physically instead they can go through all the evidence from the system within a short time. Also auditors can check the historical accounting data and evidence

Page no 08

from the system , though some of the evidence like the existence of assets need to be examined physically to make the audit investigation and report efficient & free from error.

5. environmental scanning could be defined easier with the example of the garment sector such as- while getting started for the festivals like EID, Pohela Baishakh; fashion houses and factories tend to research their previous sales, demand in the different branches preserved in the system for particular product in the market to make decisions regarding which product needs to be declined , which one needs to be changed, which product will be more popular in which area etc.
6. Analyzing big data is one of the greatest effectiveness of using information systems that helps to increase productivity of the organization. Big data is a field that treats ways to analyze, systematically extract information from, or otherwise deal with data sets that are too large or complex to be dealt with by traditional data-processing, it requires to be stored in a more organized way and an updated system which is AIS and ERP altogether.Such as- banks & supershops have to do

millions of transactions in a single day and it is very difficult to store and differentiate these transactions in different categories like inflows and outflows in order to know the incomes and expenses. But a properly implemented information system helps to keep these data stored and analyzed according to their categories.

7. Tax laws are frequently changing every other year, so it is becoming exceedingly difficult to deal with them. Therefore, manual tax preparation is becoming more and more difficult and time-consuming as it requires to change the percentages everytime. Therefore, instead of processing tax manually, financial organizations using information systems can perform the activities without any hassle as it requires to change the key points only and rest of the work is done by the system. Also it becomes easier and more transparent when the information of transactions gets tracked by the government. For example in BD merchandize products and service sellers have separate VAT Challan Number through which both customers and Government can verify the transaction and deduction of Value Added Tax paid for every purchase.
8. Business Intelligence , popularly known as decision support system, helps to identify and develop new opportunities that could be beneficial for the organization. By handling large amounts of information, that helps organizations not only at a strategic level, but also at a tactical and operational level, providing useful knowledge which help not only top decision-makers but also middle managers

Page no 09

Section 6:Future Forward

Several limitations came up while doing this study though it's expected that these limitations have not affected the process or outcome of the study. It's supposed that these limitations will be satisfied in the future research.

1. First, only 10 articles were reviewed to do this study. Clearly, there will be other AIS-related articles published in other journals. However, in mitigation of this limitation, the strength of the study is the ability to make comparisons with the findings of the earlier study of AIS-related work conducted by other researchers. By comparing the results of this study with those of other researchers , it has been identified with some certainty that the significant changes and trends that have occurred in the use of AIS in the industries of Bangladesh.
2. Second, each article was classified based on the judgement of the authors. The fact-finding for classifying the articles in this study, the fundamental theories and research methods used could differ from the other researcher's perspectives .

However, these differences are only minor and that the comparisons made of the results are accurate and that the changes and trends identified in the demand of AIS in Bangladesh are persistent and real.

3. Information was not sufficient. It was hard to obtain some of the information from the websites.
4. Some of the theories and definitions don't get matched entirely with the present context of the economy and financial organization in Bangladesh. It gets matched partially instead.

Page no 10

Section 7: References

1. Susanto.A, *"Threats on accounting information systems"*, (2018), International Journal of Scientific & Technology Research, 7(10):51-53, Researchgate
2. Belfo.F& Trigo.A, *"Accounting Information Systems: Tradition and Future Directions"*, (2013), Procedia Technology, 9, 536-546, Science Direct
3. Siyanbola & Tunji.T, *"Accounting Information as an aid to management decision making"*, (2012), International Journal of Management and Social Sciences Research (IJMSSR), 1(3),31, Researchgate
4. Nnenna.O & Chime, cited in Nser A.G.O&Nassar,M.G,"*The Role of Electronic Accounting Information Systems in the Quality of Accounting System Outcomes*" (2018), International Journal of Scientific and Research Publications, 8(12), Researchgate
5. Bhavna.S & Patel.P, *"Effect of accounting information system on Organizational Profitability"*, (2015), International Journal of Research and Analytical Reviews, 2(1), 72-76, Researchgate
6. Hernández.B, -Martínez.J.J & Martín.M.J, *"Extending the technology acceptance model to include the IT decision-maker: A study of business management software"*,(2008),Technovation, 28 (3), 112 - 121, Technovation
7. Pich.K & Sardjono.W, *"The performance of information system in facilitating work communication by online based application during COVID-19 pandemic"*, (2020), Airlangga Journal of Innovation Management, 1(1), Researchgate
8. Grabski.S.V., Stewart A. L & Pamela J. S., *"A Review of ERP Research: A Future Agenda for Accounting Information Systems"*, (2011), Journal of Information Systems, 25, 37-78, Researchgate
9. Athambawa.H et.al., *"Determinant of Contingency Factors of AIS in ERP System"*, (2020), Test Engineering and Management, 83, 6592 - 6614, Researchgate
10. Richardson.V.J. et.al. *"Much ado about nothing: The (lack of) economic impact*

of data privacy breaches”, (2019), Journal of Information Systems, 33 (3): 227–265, American Accounting Association

Page no 11

Section 8:Appendices

Appendix 1: Introducing Consulted Articles

sl	Article name	author(s)	Journal Name	Volume , (Issue), page no.	Year	Publisher
1	Threats on accounting information systems	Azhar Susanto	International Journal of Scientific & Technology Research	7(10):51-53	2018	Researchgate
2	Accounting Information Systems: Tradition and Future Directions	Fernando Belfo, Antonio Trigo	Procedia Technology	9, 536-546	2013	Science direct
3	Accounting Information as an aid to management decision making	Siyanbola & Trimisiu Tunji	International Journal of Management and Social Sciences Research (IJMSSR)	1(3)31	2012	Researchgate
4	The Role of Electronic Accounting Information	Nnenna.O,Chime cited in	International Journal of	8(12)	2018	Researchgate-

	Systems in the Quality of Accounting System Outcomes	Ahmed Giuma Omar Nser , Mohamed Giuma Nassar	Scientific and Research Publications			
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Page no 12

5	Effect of accounting information system on Organizational Profitability.	Smt. Bhavna P. Patel	International Journal of Research and Analytical Reviews	2(1), 72 -76	2015	Researchgate
6	Extending the technology acceptance model to include the IT decision-maker: A study of business management software.	Blanca Hernández, Julio Jiménez-Martínez, Ma José Martín	Technovation	28 (3), 112 - 121.	2008	Technovation
7	The performance of information system in facilitating work communication by online based application during COVID-19 pandemic	Keomorakath Pich,Wahyu Sardjono	Airlangga Journal of Innovation Management	1(1)	2020	Researchgate
8	A Review of ERP Research: A Future Agenda for Accounting Information Systems,	Severin V. Grabski, Stewart A. Leech, Pamela J. Schmidt	Journal of Information Systems	25, 37-78	2011	Researchgate
9	Determinant of Contingency Factors of AIS in ERP System	Haleem Athambawa, Sabraz Nawaz Samsudeen, Ahamed Lebbe Mohamed Ayooob khan	Test Engineering and Management	83, 6592 - 6614	2020	Researchgate

10	Much ado about nothing: The (lack of) economic impact of data privacy breaches.	Vernon J. Richardson;Rodney E. Smith;Marcia Weidenmier Watson	Journal of Information Systems	33 (3): 227–265.	2019	American Accounting Association
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Page no 13

Appendix II : Compilation of objectives/purpose/hypothesis addressed by the articles

Article no.	objective/purpose/hypothesis
1	Objective to find out the threats to the security of accounting information systems
2	Objective - To reflect current and future role of AIS by analyzing the responsibility of accountants and financial professionals - Foresee the future technological answers to accounting domain challenges , like external and compliance reporting
3	hypothesis - Accounting information has effects on management decision; - There is a significant relationship between the perception of employees and accounting information; - There is a significant relationship between timefactor and accounting information; - Accounting information has effects on the company's performance
4	Objective To know if there was no need for information systems to work more efficient , since in 21st century information technology exists in all aspects
5	Objective to know the relationship between the accounting information system and profitability of the organisation as well as to study use of an effective accounting information system in the organisation.
6	Objective To analyze acceptance of business management software within the new competitive environment
7	Objective Proving the impact of system information to business and the increasing needs of the information system to support employee communication while working from home
8	Objective to synthesize the extant ERP research reported without regard to publication domain and make this readily available to accounting researchers.

9	Objective to Reveal that • Top Management Support, External Expert Support, and User Competency are significantly influenced on ERP System Quality. • only two factors: Top Management Support and External Expert Support are influenced by AIQ. • The Internal Control System is not influenced on ERP System Quality and AIQ. • User Competency is not influenced by AIQ. • ERP System Quality has an impact on AIQ. • Top management, External Expert Support and User Competency are significantly influenced on AIS in the ERP Environment.
10	Objective To examine the consequences of data breaches for a breached company

Page no 14

Appendix III: Compilation of Methods used in the articles

Article no.	Methods used
1	review method with the technique of reviewing and analyzing several papers related to the topic of discussion about the security of accounting information systems.
2	literature review on the trends, challenges and answers of the AIS domain.
3	• A survey research taken on fifty workers, of a typical manufacturing company through using questionnaires. • Four research hypotheses were raised and tested; using t-test statistics at a significant level of 5%.
4	Reviewing different published papers
5	reviewing the previous studies and concept of accounting information systems
6	applying the concepts introduced by the technology acceptance model (TAM)
7	Collection of secondary data from books and journal articles retrieved from google scholar and other websites
8	Collecting data through survey on the listed companies using ERP in Sri Lanka and testing the data using different models
9	organize key ERP research by topics of interest in accounting, and map ERP topics onto existing accounting information systems research areas
10	• find the economic consequences are, on average, very small for breached companies • also test whether data breaches affect future accounting measures of performance, audit and other fees, and future Sarbanes-Oxley Section 404 reports of material internal control weaknesses, but find no differences between breach and matched companies

Appendix IV: Compilation of conclusions of the articles

Article no.	conclusions
1	The highest threat to the security of accounting information systems is the threat of hackers.
2	identifies many of the concerns and challenges of the Accounting domain to which the response from the current technology is still deficient.

Page no 15

3	Successful utilisation of accounting information requires a fit between three factors. First, a fit must be achieved with a dominant view in the origination or perception of the situation. Second, the accounting system must fit when problems are normally solved, i.e. the technology of the organisation. Finally, the accounting information must fit with the culture i.e. the norms and value system that characterises the organisation.
4	The quality of accounting information systems has next dimensions which are: accuracy, audit ability, reliability, security, timeliness, flexibility, and user satisfaction.
5	the effectiveness of accounting information systems in decision making is evaluated from various aspects such as better decision-making by managers, more effective internal control systems, improvement of the quality of financial reports, enhancement of performance measures, facilitating financial transaction processes and helps in expansion of profitability of the organization and the evaluation shows that decision making is facilitated when the accounting information system is efficient enough.
6	For a greater implementation of the management software, the IT should be useful in the performance of a business function and easy to apply.
7	Business need technology to support but humans still need to manage technology
8	User Competency has directly influenced on the ERP System Quality. Although the User Competency varies on the usage of AIS in any organisation, the organization still has to pay more attention to User Competency. With the complexity of the process of AIS's requires competent staff in the AIS (skills, knowledge and experience with AIS) and AIS training in ERP environment), both determine the success of the application of AISs.
9	encouraged the development of several major ERP research areas: (1) critical success factors, (2) the organizational impact, and (3) the economic impact of ERP systems
10	conclude by providing a few explanations of why there appears to be an effect at the economy-wide level, but no noticeable effect on individual company performance

