

MIDLANDS STATE UNIVERSITY



FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING

**INVESTIGATING THE IMPACT OF A NON INTEGRATED
ACCOUNTING INFORMATION SYSTEM ON ORGANISATIONAL
PERFORMANCE: CASE STUDY OF ZIMPAPERS (THE MANICAPOST)**

BY

KUDAKWASHE MANGWENDE

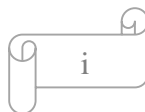
R111667Y

***DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE BACHELOR OF
COMMERCE ACCOUNTING HONOURS DEGREE.***

AT MIDLANDS STATE UNIVERSITY

GWERU

ZIMBAMBWE: 2014



DECLARATION FORM

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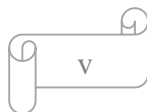
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DEDICATION

This dissertation is dedicated to my Mother and my uncle Mr. Zunzanyika and my late grandmother (Mrs. Musakanda) who played an essential role in assisting me to achieve my goals through their support both financially and socially.



ACKNOWLEDGEMENTS

First and fore most i would like to thank the almighty God for his unwavering guidance and strength throughout the research project. I would also want to pass my heartfelt gratitude to my supervisor, Ms. Takachicha for assisting me with the necessary support and direction on how to carry out my project successfully. I am grateful to my Chairman (Mr. Mvura) and Mr. Mazhindu who treated us as their own children and giving us guidance. I would also want to express my gratitude to staff at Zimpapers (1989) Ltd for assisting me with the relevant information to ensure the relevant progress in my research study. I am also grateful to my friends, and special thanks to N. Kanda, P. Gubunge, K.B. Moyo and all the members of my family especially my mother, my uncle who provided the necessary assistance all the way.

MAY GOD RICHLY BLESS YOU!!!!

ABSTRACT

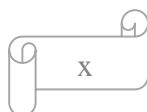
The aim of the research is to investigate the impact of using non-integrated accounting information systems on organizational performance. The literature on the research study constituted all the objectives of the research study and what other authors have said about the development of integration from traditional accounting systems. Questionnaires were used as the main data collection instruments essential in the collection of data. Primary and Secondary sources were both used to obtain data. The information obtained from the data collected was analyzed by making use of a spread sheet and it was presented by making use of simple tables and graphs. From the research conducted the research findings indicate that there is a correlation between an accounting information system and organizational performance. The use of non-integrated accounting information system has a significant negative bearing on organizational performance as this was the main research objective of the study. The research findings also show that the competence of personnel and input controls are some of the attributes that affects data quality within an organization. The research study ultimately reflects that the implementation of Enterprise Application Integration (EAI) system was arguably chosen as the best practice of integration, through application integration and external business integration.

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LIST OF ACCRONYMS

AIS	Accounting information system
ERP	Enterprise resource planning
SOA	Service oriented architecture
CRM	Customer relation management
SCM	Supply chain management
EIA	Enterprise application integration
BPM	Business process management system
DQ	Data quality

CHAPTER 1

INTRODUCTION

1.0 Chapter Introduction

Chapter one introduces the study by highlighting the areas looked into and this is the background of study and the statement of the problem. Also outlined are the research objectives, the main research question and the sub research questions which the research seeks to answer. It also features the significance, delimitations, limitations of the study and closed by definition of terms which are relevant to the study.

1.1 Background of Study

Zimpapers (1980) Ltd is a public listed company. The company's core business is newspaper publishing, commercial printing and broadcasting. During the past few years the management has expended great effort to stay abreast of the latest information technologies however they still do not have accurate, timely and useful data they need to be effective (Annual financial statement 2012).

In the March 2013 there was a mismatch of invoices and payments in the system resulting in clients being denied services even though they had cleared their accounts. This affected the Manica post reputation resulting on losses of both clients and revenue (Minutes of the annual general meeting June 2013).

Table 1.1 shows the decrease in Revenue in 2013

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
NUMBER OF CLIENTS	1806	1801	1750	1655	1610	1584	1533	1491
SALES	130 852	130 754	125 824	108 253	98 666	90 184	83 882	78 445
% DECREASE IN REVENUE	-	0.075	3.69	13.96	8.86	8.6	6.98	6.48

Source: Zimpapers (The Manica Post) Management accounts.

The company has been losing its subscriber base from 2011 to date. The organization uses two separate accounting packages to process and maintain subscriptions (SAGE X300 and spread sheet), this has resulted in high volumes of customer complaints and led to bad publicity about the organization. This has also resulted in loss of revenue due to decrease in customer base. According to the circulation Manager`s report; there has been a decrease in an increasing rate of the organization`s subscribers over the past three years (Circulation sales analysis report, Dec 2013).

Table 1.2 Table shows the decrease in subscribers

SUBSCRIPTION SALES REVIEW				
YEA R	AVERAGE # OF SUBSCRIBERS	AVERAGE # OF COPIES PER YEAR	TOTAL SALES FIGURE	% INCREASE OR DECREASE IN REVENUE
2011	850	312	\$ 265,200.00	
2012	600	312	\$ 187,200.00	-29.41176471
2013	420	312	\$ 131,040.00	-30

Source: circulation subscription trend review and the Circulation Manager.

In May 2012, the company had a financial loss of \$72 300. The financial loss was in respect of credit losses written off. The credit losses were written off because the company could not trace the unpaid newspapers in the system to validate their vendors and agents balance in their statements. This resulted in decrease in revenue (annual report 2012).

1.2 Statement of the Problem

Zimpapers (1980) Ltd has been facing challenges of loss in revenue, bad publicity to its stakeholder's and financial loss over the past three years due to product of using two separate accounting packages. The study therefore seeks to investigate the impact of using a non-integrated accounting information system on the organizational performance.

1.3 Research Objectives

- To establish the relationship between an accounting information system and the organizational performance.
- To identify the problems associated with the use of a non-integrated accounting information system.
- To establish the impact of using a non-integrated accounting information system on the organizational performance.
- To identify other attributes that affect data quality in an accounting information system
- To recommend the organization on that can be adopted to mitigate the problems associated with the use of a non-integrated accounting information system.

1.4 Main Research Question

What is the impact of using a non-integrated accounting information system on the company's performance?

1.5 Sub Research Questions

- What is the correlation between an accounting information system and organizational performance?
- What are the problems associated with the use of a non-integrated accounting information system?
- What is the impact of using a non-integrated accounting information system on the organizational performance?
- What are the factors that affect data quality in an accounting information system?
- What are the alternative measures that can be used in order to mitigate the problems of using a non-integrated accounting system?

1.6 Significance of study

TO THE STUDENT

This study is carried in partial fulfillment of the Bachelor of Commerce Accounting Honours Degree. This also helps the student to gain new scientific and technical knowledge about how to improve and maintain high quality accounting data to be used within the organization and for reporting so that they can come up with sound decisions through the use of AIS.

TO MIDLANDS STATE UNIVERSITY

The results of the study will help provide literate and point of reference to other students at the University.

TO THE ORGANISATION (ZIMPAPERS)

The study will help the organization to know how it can effectively use the accounting information system to produce and maintain high quality accounting data so that they can make some sound decisions based on information that is verifiable and can be determined with reliability.

1.7 Delimitations of Study

This study is going to be focused on the impact of using a non-accounting information system on the organization performance.

The study is going to be centered at Zimpapers at the Manica post, it covers the period from 01 January 2011 up to 31 December 2013 and the target population will be the management and employees of Zimpapers.

1.8 Limitations of study

The research is likely to encounter setbacks which will affect the smooth accomplishment of the task. The problems are likely to arise from the following

- TIME CONSTRAINTS

The time available for the student to collect the data is less than three months and he will also be working on other modules that require his attention. The writer will go beyond normal study hours and also take advantage of weekends.

- FINANCIAL CONSTRAINTS

Since the research is going to be conducted when the researcher is learning in Gweru and there is need to travel from Gweru to Mutare where he is going to carry out some research from the management and employees at the Manica Post and also he is working under a tight budget where he needs money for printing, communication and substantially information gathering cost for the researcher to gather adequate information. The writer is going to save some of his money for non-basic need to try and curb the financial constraints.

- ACCESS CONSTRAINTS

Confidentiality might deter the researcher from accessing useful information in some cases due to the company privacy policy. The writer is going to use data triangulation.

1.9 Definition of terms

INFORMATION SYSTEMS - Is a system that collects and communicates information within the organization (Collier, Kizan and Schumann 2013).

PUBLICATION - The action or process of publishing something, 2) a book or journal that is publication (Concise Oxford dictionary, tenth edition).

QUALITY - A standard of something as measured against other things of a similar kind (Concise oxford dictionary, tenth edition).

INVESTIGATE - To carry out a research (Concise Oxford dictionary, tenth edition).

TRIANGULATION - is a method of cross checking data from multiple sources to check for regularities in the search data (O`Donoghue and Punch 2003).

1.10 Summary

The chapter provided an insight in the background of study, statement of the problem, objectives of the study, justification of the study as well as delimitation of the study. Limitation of the research and definition of terms were also looked at. The subsequent chapter is an in-depth analysis of literature that will be used in the research.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter looked at the Literature that was made by other authors with regards to the aspects that are centered on the impact of a non-integrated accounting information system on the organizational performance. It is going to be focused on the overview of an accounting information system, the correlation between the accounting information system and organizational performance, integration of accounting information systems, problems associated with the use of a non-integrated accounting information system, organizational performance and also ultimately the data quality strategy as a means to improve data quality.

2.1 Overview of accounting information system

An information system “is a system that collects information and presents it, usually in summarized form, for management. Information is different from data because it has been made usable by some form of summarization and/or analysis. Whilst data is a set of raw facts, information is usable” (Collier, 2012).The information system lead then to the accounting information system, according to Hurt, R. L (2010) “an accounting information system is a set of interrelated activities, documents, and technologies designed to collect data, process it and report information to a diverse group of internal and external decision makers in organizations.

Hurt (2010) noted that a well-designed accounting system can significantly enhance decision making in organizations by responding to many elements of financial accounting standard board”. On the other hand it is argued that, an AIS “is a whole of related components that are put together to collect information, raw data or ordinary data and transform them into financial data for the purposes of reporting them to the decision maker” (Mahdi Salehi, vahab rostami and Abdolkarim Mogadam, 2010). Accounting information “is provided by a company’s accounting information system (AIS)” (Jackson and Sawyer, 2009, p.4)

As noted by Turner and Weickgenannt (2013) due to the nature of processing, size of the organization, the extent of computerization, and the viewpoint of management, it has resulted in the use of different types of accounting systems in organization’s today. They argued that in

order to organize the study of accounting information systems they have divided the system into three categories namely the manual, Legacy systems and the modern, integrated IT systems.

2.2 The roles of accounting information system

The roles and functions refers to what something is used for (word web), according to Hurts (2010) the roles of an accounting information system are, To capture data on the elements of financial statements no matter what form they take or information technology they use, accounting information system documents changes in assets, liabilities, equity, revenue, expences, gains and losses that is efficient and effective collection and storage of data concerning an organization's financial activities.

The other role of accounting information system is transforming data into relevant information, a well-designed AIS can go beyond the elements of financial statements, items like geographical area, custom characteristic and transaction history, demand of inventory and vendors quality ratings improve decision making by enhancing relevants(Hurts, 2010).

Wiley (2013) also argues that the other roles of an accounting information system “is to supply information useful for making decisions, including producing managerial reports and financial statements and also to make sure that controls are in place to accurately record and process data”. This is to say that this is what the accounting information system is used for within an organization.

2.3 Accounting information system and Organizational performance

The accounting information system and organizational performance seeks to stick the link between the AIS and organizational performance. AIS is an instrument which, when integrated into the field of Information and Technology systems (IT), are intended to assist in the management and control of topics related to organization' economic-financial area (Soudan, 2012), However AIS is also said to be the whole of associated mechanisms that are put together to assemble information, raw data or ordinary data and transform them into financial data for the purpose of reporting them to the decision makers (Mahdi Salehi, vahab rostami and Abdolkarim Mogadam, 2010).

Lately numerous scholars have asserted that Accounting information systems plays a proactive role in the strategy management, acting as a mechanism that assists organizational strategy (Gerdin and Greve, 2008). Strategy is said to be an elaborate or system plan of action (Word web). In the present study it is assumed that the organizational performance is a function of the financial performance, performance management and the AIS. Fitness will exist in the combination of strategy and AIS that contribute to financial performance.

Grande et al (2010) argues that there is a positive association between AIS design, organizational strategy and performance; this has been supported by recent literatures that propose light evidence of the correlation between AIS and financial performance. The successful implementation of AIS could save shareholders time and money. The “information value generated by AIS to shareholders in making investment decisions” (Zulkarnain, 2009).

According to Majeed (2011) the entities performance is measured in terms of ROA (Return on assets) and ROE (Return on equity), the ratios are used to measure financial performance of the organization. This is to say that financial managers need accounting data produced by AIS in order to examine the organizational performance and make some plans.

Saudani (2012) argues that because of the need for good quality and reliable information that management require it has forced management to engage in different activities to improve the quality of information . Quality information is one that enhances the competitive advantage of the organization. “In an accounting information system, the quality of the information provided is imperative to the success of the systems” (Hongjiang Xu, 2010)

2.4 Organizations and accounting information system

Accounting information systems that are used for accounting processes differs from one organization to the other. “Organization makes use of different factors such as accounting requirements and management information needs in order for it to design an accounting system that suits its needs” (Walker, 2009, p.76). The accounting systems that are in use are capable of producing detailed reports on a systematic or impromptu and these systems range from manual to sophisticated computerized systems. Walker (2009) further argues that most of the accounting systems can be classified in two types that is; integrated and non-integrated (interlocking) systems.

2.5 Non-integrated accounting system or interlocking systems

Because of the use of different AIS from one organization to the other , some of the accounting systems that are used have resulted in organizations failing to materialize the benefits of the use of accounting systems as noted by Jackson and Sawyer (2002) “a non-integrated accounting information system is the use of multiple accounting systems within an organization” and it is also said that a non-integrated accounting system or an interlocking system “is the one which the cost accounts are distinct from the financial accounts, the two sets of accounts being kept continuously in agreement by the use of control accounts or reconciled by other means” CIMA terminology.

2.5.1 Benefits of a non-integrated or interlocking accounting information system

According to Walker (2009) the main advantage is that management`s attention can be concentrated on operational aspects of the business so that future performance can be improved and also the cost account can analyze information in a way which is to managers, without the restrictions imposed on the financial accounts due to the need to conform to statutory reporting requirements.

2.5.2 Drawbacks associated with the use of a non-integrated accounting system

The drawbacks of using a non-integrated accounting system overwhelmingly outweigh its benefits and have negatively affected some organizations, According to Bansal (2013) he argues that “maintaining data on many different computers systems (hardware + software) lead to the following problems; Problems in providing seamless customer service, it has been argued that “customers now anticipate to be able to access the company through multiple different channels and get a smooth, seamless experience across all of them” (Kahn, 2012, p. 63).

There is also the problem of the using in accurate data, Plotkin (2013) noted that “inaccurate information being collected about the entity, as well as data being used for purposes for which it was never intended. The end result is that business decisions based on the data may lead to suboptimal results”.

Bhansal (2013) also point out some of the problems associated with the use of an disintegrated accounting system or non-integrated accounting system apart from the draw backs mentioned

above and these are “a redundant and disorganized database structure, difficulty in reporting and sharing information, dependence on manual processes and human interventions, difficulty in complying with reporting requirements and lack of capacity for process improvements”; all of these have been the shortcomings of using a non-integrated accounting system and this has a negative impact on the organizational performance.

2.5.3 Integrated Accounting information systems

The drawbacks of non-integrated accounting information systems can solely be rectified by integration; CIMA (2006) terminology defines an integrated accounting system as a set of accounting records which provides both financial and cost accounts using a common input of data for accounting purposes.

2.5.4 Integrating

According to The Merriam-Webster online dictionary it defines the process of integrating as “form, coordinate, or blend into a functioning or unified whole or unite”. It is further elaborated that “integration is the process that an organization, or a number of organizations, goes through in order to unify, or join together, some of its tangible or intangible assets. Assets here represent physical possessions, like computer networks and applications, or intangible resources, like data, knowledge, or business processes” (Piccoli, 2012, p.97). As noted by Piccoli (2012) the overarching goal of integration is to organize, streamline, and simplify a process or an application and alternatively, the firm’s integration effort seeks to modify processes, applications, or assets so that the realities of the organization are more closely aligned with overarching the current business objectives and strategic orientation of the firm. This is to say that integration of accounting systems can eliminate the shortcomings of the use of separate multiple accounting systems for data processing within an organization.

2.5.5 Benefits of integration

An organization undertakes integration efforts because they offer a number of benefits and it solves the problems associated by the use of a non-integrated accounting information system. Morgenthal, Forge (2000) argues that integration “promises a drastic reduction in duplication of efforts and redundancy of operations. For example, once a firm integrates its receiving and

inventory applications, it no longer needs data to be keyed into separate data bases multiple times. This reduces not only direct costs, but also the potentially for error sand inconsistencies leading to further expenditures of time and money”. Integration also “offers advantages in terms of access to information, speed, and response time. It also serves to increase coordination across organizational units and to enforce standardization” (Piccoli, 2012, p.96). Rajavesakaran (2012) noted some of the benefits of using an integrated accounting system, the use of an integrated accounting information system also solve the reconciliation problems as there is only one profit or loss figure hence the problem of reconciliation will not arise and also enhances accuracy that is correct and reliable data can be obtained under this system and as such the results will be accurate.

2.5.6 Drawbacks of an integrated accounting information system

Walker (2009) argues that the main disadvantage of an integrated accounting information system is that the system provides information both for external and internal reporting requirements. The need to information for statutory purposes may influence the quality of information which can be made available for management purposes and also “the standardization advantages mentioned above also bring about limitations of flexibility that are all the more relevant for larger firms with unique local operations. With highly integrated operations, the need for change in a business unit or function must be weighed against the needs of the other units and the costs that they will have to bear to accommodate the change” (Piccoli, 2012, p.96).

2.6 Organizational Information Systems and their impact

Precisely, “when the systems integration effort seeks to enable communication between separate software programs, we speak of application integration. When the systems integration effort seeks to enable the merging of data repositories and databases, we speak of data integration. Internal integration pertains to the unification or linkage of intra-organizational systems, while external integration pertains to inter organizational ones. Internal and external systems integration substantiates itself in custom-developed applications or off-the-shelf commercial products and tools with names that you have probably heard before: enterprise resource planning (ERP), Enterprise systems, business intelligence tools, supply chain management software, and the like” (Piccoli, 2012, p.103).

2.6.1 Conventional accounting systems and Enterprise resource planning systems

Conventional accounting systems are sometimes known as traditional accounting systems, As noted by Jackson and Sawyer (2002) customarily accounting information systems was basically transaction processing that apprehended financial data subsequently from accounting transactions. On this notion accounting information system was merely financial information (revenue, liabilities, asserts, cost of sales etc.) conveyed in dollars or in monetary terms. Other non-monetary information such as the number of units of inventory on hand , the number of budgeted labour hours to produce a product , The number of units necessary to break even and the time it takes to manufacture a product were likely collected and processed outside the traditional accounting information system.

The use of multiple systems within a company causes a number of problems. As noted by Jackson and Sawyer (2002) “it is costly to support multiple systems, more importantly it is difficult to integrate information coming from various systems and to make decisions for a company from multiple sources of information”. In addition Hurt (2010) noted that over the past other useful information concerning transactions, such as the quality of materials produced the timeliness of its delivery, or customer satisfaction with an order at all therefore not evaluated by management. “Over the past few years Enterprise resource planning (ERP) systems have been developed in an attempt to address the problems mentioned above .ERP systems integrate the traditional accounting information systems to capture both qualitative and quantitative data, to collect and organize that data into useful information and to transform that information into knowledge that can be communicated though out the organization” (Jackson and Sawyer, 2002, p.4).

During the “use of conventional systems it was not given attention to information echnology. The optics has dramatically changed in present time when systems can be standardized and integrated ERP can provide real time information .Technology has become a key player who can help fulfill the ambitions of the company in terms of management control” (Dechow, Granlund and Mouritsen, 2007, p.627-650). Cordos, Adreceica and Rof (2010) argued there have been short comings in the recent development of ERP integration such as the fact that it is difficult to detect errors. If an error is looking for classic route leaving normal account and then log into documents, he further argued that in contrast we cannot say the same thing about

databases where control activity is difficult task involving stringent organization and secure database. Accounting is said that it seems multicriteria or multidimensional this is so because the existing computerized organized round a database, transactions are in a far more rich than the traditional double entry (Evelyne Lande et al, 2002).

In the contemporary phase of enterprise resource planning systems (ERPS) that can standardize and integrate data and render information integrated, up-to-date, available and shareable in real time technology, have convert an evident participant that can help develop a firm's management control ambitions (Dechow, 2007).

2.7 Enterprise Resource Planning Overview

Enterprise Resource Planning (ERP) “is the software infrastructure that links an enterprise's internal applications and supports its external business processes. ERP applications are modular, and the modules are integrated with each other to expand capabilities, an ERP helps managers run the business from front to back. Departments can easily stay informed of what's going on in other departments that impact its operations or performance. Being informed of potential problems and having the ability to work around them improves the company's business performance and customer relations” (Turban, Volonino and Wood, 2013. p.10.2). Smith (2012) asserts that enterprise resource planning (ERP) systems are the world's leading and utmost intricate enterprise systems. ERP systems places emphasis largely on intra-company processes thus, the processes that are executed within an organization and they integrate functional and cross functional business processes. Enterprise resource planning is also said “to be a modular, relational database designed to provide internal organizational stakeholders with more timely, comprehensive information for decision” (Hurt, 2010, p.188). Arguably, the two best ERP systems today are Peoplesoft (www.peoplesoft.com) and SAP (www.sap.com).

Enterprise systems “are one of the most complex and powerful information systems in use today, companies also benefited from new technologies that could help link, or integrate, many different client-server systems together in new and valuable ways. These new technologies are collectively labeled service-oriented architecture, or SOA” (Magal and Jeffrey, 2011). An ERP system is a generic term for an integrated enterprise-wide computing system. The major objectives of ERP systems “are to tightly integrate the functional areas of the organization,

enabling information to flow seamlessly across them, this means that changes in one functional area will be immediately reflected in all other pertinent functional areas” (Rainer and Cegielski, 2012). The essence of a complete ERP system is to automate business processes, share common data across the organization but most importantly, to produce real-time data.

Shehab et al (2004) argues that although an ERP system is a pure software package, it embodies established ways of doing business. Studies have illustrated that an ERP system is not just a pure software package to be tailored to an organization but an organizational infrastructure that affects how people work and that it imposes its own logic on a company’s strategy, organization, and culture.

ERP MODULES

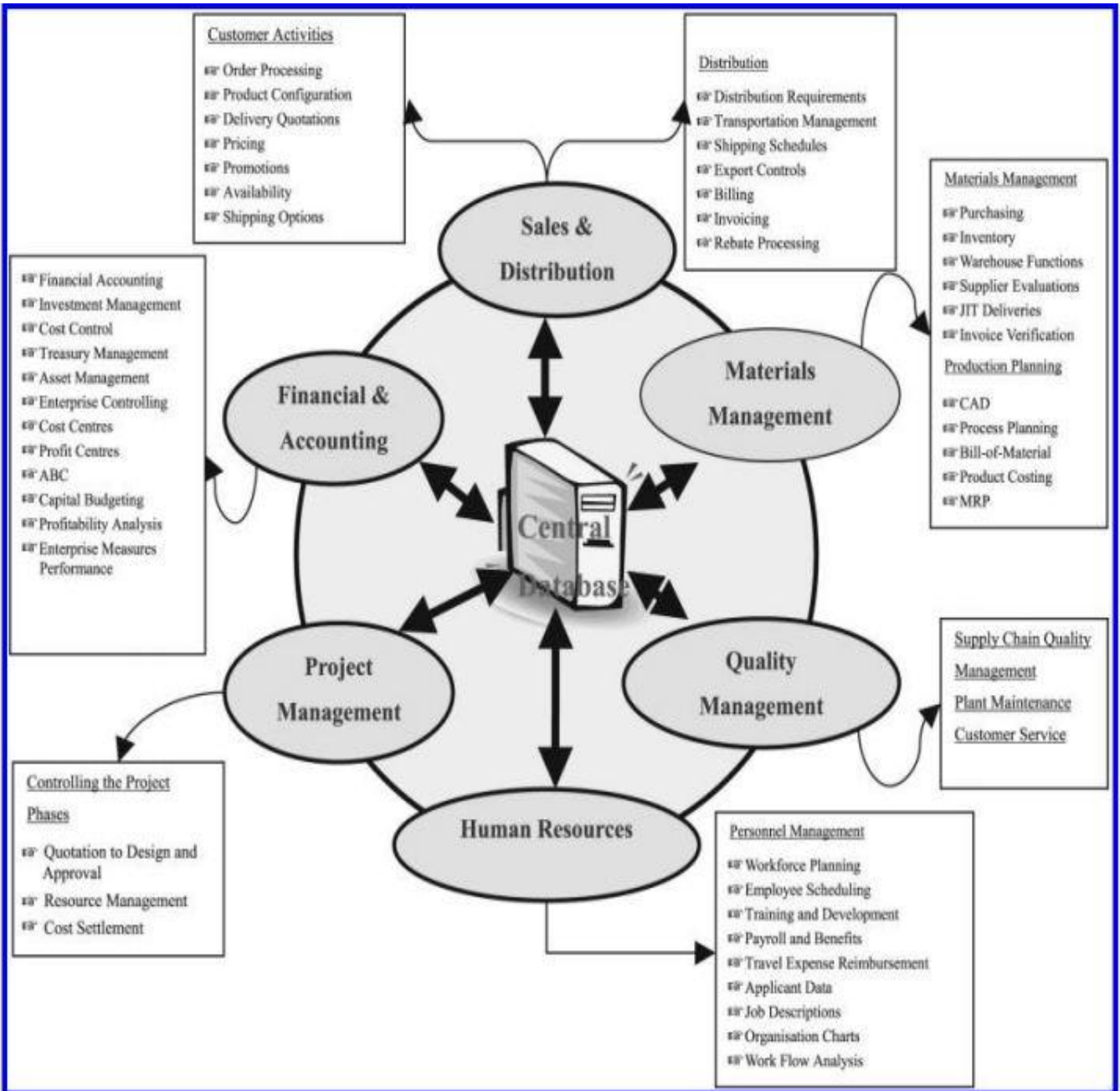


FIG 2.1 Enterprise resource planning modules

Source: E.M. Shehab M.W. Sharp L. Supramaniam T.A. Speddin (2004)

2.7.1 Role of ERP Systems in an organization

Fig 2.1 helps to visualize the role of ERP within an organization, “the company has internal business processes which are performed by functional units such as sales and distribution, production, finance and accounting, materials and human resource management. There are also some business processes to handle customers and vendors. The common thread that integrates the functional units is the information. If an organization uses information technology to run its business, then internal business processes are realized through an ERP system. An organization may use a Customer Relation Management (CRM) system for managing its customers and a Supply Chain Management (SCM) system to manage its vendors and suppliers” (Bansal, 2013. P. 47).

2.7.2 Benefits and Drawbacks of enterprise resource planning systems

Rainer and Watson (2012) noted that ERP systems can generate significant business benefits for an organization. The major benefits fall into the following categories: “Organizational flexibility and agility, ERP systems break down many former departmental and functional silos of business processes, information systems, and information resources. In this way they make organizations more flexible, agile, and adaptive. The organizations can therefore react quickly to changing business conditions and also capitalize on new business opportunities”.

Rainer, Prince, Cegielski (2014) argues that “ERP offers decision support, ERP systems provide essential information on business performance across functional areas. This information significantly improves managers' ability to make better, timelier decisions”.

Quality and efficiency, ERP systems integrate and improve an organization's business processes, resulting in significant improvements in the quality of customer service, production, and distribution” (Rainer and Watson, 2012).

However enterprise resource planning systems have its disadvantages, ERP systems have its own drawbacks. The major limitations of ERP implementations are that “the business processes in ERP software are often predefined by the best practices that the ERP vendor has developed. Best practices are the most successful solutions or problem-solving methods for achieving a business objective. As a result, companies may need to change their existing business processes to fit the

predefined business processes incorporated into the ERP software. For companies with well-established procedures, this requirement can create serious problems, especially if employees do not want to abandon their old ways of working and therefore resist the changes” (Rainer, Prince and Cegielski, 2014, chapter 10.3)

Some scholars argue that the use of the ERP is inappropriate. Rainer and Watson (2012) noted that this is particularly true for all companies that discover the process of changing from their current system is too demanding, time consuming, or costly. These organizations, however, may still have isolated information systems that need to be integrated with one another. To complete this task some of these companies use enterprise application integration. An enterprise application integration (EAI) system integrates existing systems by providing layers of software that connect applications together. These layers of software are called middleware. In essence, the EAI system allows existing applications to communicate and share data, thereby enabling organizations to use existing applications while eliminating many of the problems caused by non-integrated accounting information systems.

2.7.3 Enterprise application Integration

Enterprise application integration is defined “as an approach that combines processes, software and hardware to link two or more systems together allowing them to act as one system. EAI can be used to connect pieces of an enterprise to legacy system or add-on modules such as CRM software” (Wheeler, Dull and Gelinas, 2014. p.38). Apart from EIP Wheeler, Dull and Gelinas (2014) also argues that there is Business process management Software (BPM), is a concept much larger than system integration that provides a comprehensive method for integrating manual and automated internal processes application, and system, as well as integration to external partners and services.

2.8 Data Quality Strategy

Data quality strategy “is a business philosophy that aligns strategy, business culture, company information and technology in order to manage data to the benefit of the enterprise” (Bhansali, 2013, p. 80). After an organization adopts an adequate accounting system that suits its need and that is customized to meet the organizational accounting processes there is also need to maintain

the quality of data or output from the organizational accounting information system. It is argued that “most companies are not strategic about systems development. They lack a system domain road map strategy along with appropriate governance. The end result is a spider web of systems, system dependencies, data feeds, and so on. The longer this situation continues, the more complicated the system dependencies become and the more difficult it is to address them” (Couture, 2012, p. 32). According to R othlin (2010) he argues that “Information system planning must consequently be integrated with business planning, i.e. aligned with a company’s objectives, resources and priorities. Within this process data quality has to be considered as a fundamental part of a business and IT strategy”.

It is argued that “even if application support is sufficient and a solid technological platform exist, lacking a data quality system can put usability and overall value of ERP system at risk” (R othlin, 2010, p. 202). A data quality strategy is important in the sense that it can bring together, in an early stage, system users who are or will be confronted with data quality problems (but they do not know how to solve it) and professionals who knows how ERP software works , but who are unable to actively influence the data creation and usage process.

2.8.1 Data Quality

Data quality cannot be “attained by oversight or monitoring alone; it should be built into design and execution of studies. Quality approach includes quality of a rule, quality of a system and quality of a culture. There is need to put a process in place to capture, clean, maintain and provide clear guidance on how you aim to achieve your goals. The organization also have to ensure that everyone is trained in the importance of maintaining good quality data and also hold regular meetings to ensure that your data quality processes are up to date, efficient and effective , and remain that way”(Bhansali, 2013, p.82) .

2.8.3 Other attributes that may hinder DQ

According to Hongjiang Xu (2008) research findings the organizations should have attention to both accounting information systems and organizational factors. He further noted that the organization should take into account the three most important components to improve data quality (DQ) in an organization that is the competence of personnel, input controls should be in

place incorporated with data suppliers quality manager and the organization should put in place data quality manager to be responsible for the data quality in an accounting information system.

2.9 Summary

This chapter was centered on the Literature review that was put forward by other authors and scholars. The chapter provided a platform for the review of the background. It was focused on the integration and non-integration of accounting system and the development that has been recently been taking place about integration and the impact of accounting information systems on the organizational performance. The following chapter looks at the methodology of research.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter is an assessment and exploration of how the research was conducted by the researcher. It is the review of the research design and methodologies that were used in the research process, which is the collection of data. The chapter reflects the whole process of how the research was conducted. It provides details of the research design of the study, sampling, target population, methods of sampling, validity of data and data collection.

3.1 Research design

According to <http://libguides.usc.edu/content> the research design is defined as the overall scheme that is chosen to integrate the diverse components of the study in a comprehensible and reasonable way thus ensuring you that you will successfully address the research problem. It establishes the plan for the collection, extent, and analysis of data. Kumar (2011) argues that it is a technical strategy that is adopted by the researcher to provide the solution for the research questions reliably, objectively, precisely and economically. It is therefore a predefined plan that is used by order to come up with the outcome or the results of the research study.

3.1.1 Descriptive research design

Descriptive research design was used to conduct the research. Descriptive research design “is argued to be an effective way to obtain information used in devising hypotheses and proposing association” (Monsen and Horn, 2008.p.5). Williaman (2009) argues that instead of scrutinizing records or artifacts, descriptive research depends on observation as a means of collecting data, it attempts to examine situation in order to establish the norm, thus what can be predicted to happen again under the same circumstances. ‘Observation` can take many forms, depending on the type of information sought, people can be interviewed, questionnaires distributed, visual records made, even sounds and smells recorded. It is also argued that “the key to descriptive research is to measure and record your variables accurately using a representative sample” (Mitchell and Jolley, 2012.p.272). Wyk (2013) asserts that descriptive research design`s main

aim is to deliver a precise and binding representation of (summarized) the aspects or variables that relate or are of significant to the research question.

3.1.2 Merits and Demerits of descriptive research

Descriptive researches have several advantages when used in the collection of data in a research being conducted. According to Grimes and Schulz (2002) the advantages of descriptive study is that “the data is already available and thus inexpensive and efficient to use”. It is also argued that descriptive research is also an important source of basic knowledge, there is also Flexibility on how to conduct the research (Elmes, Kantowits and Roedier, III, 2011) these are the reasons that persuaded the researcher to use descriptive research since it reflects what the researcher had in mind on how to carry out his research. However, descriptive studies have its limitations, “as descriptive research depends on human observations and responses, there is danger that distortion of data can occur. This can be caused, among other ways, by inadvertently include biased questions in questionnaire’s or interviews, or through selective observation of events. Although bias cannot be wholly eliminated an awareness of its existence and likely extend is essential” (Williman, 2009. P. 116).

3.1.3 Justification of descriptive research

There are various research designs that can be adopted to collect data in a research project such as descriptive, correlational, semi-experimental, experimental, review and meta-analytic. Descriptive research design was used because it offered a reasonably comprehensive representation of what is happening at a particular time and in the same breath it permits the improvement of questions for further study.

3.2 Case study research

Case study research (CRS) is defined as “an inquiry that focuses on describing, understanding, predicting, and or controlling the individual (i.e. process, animal, household, organization, group, industry, culture or nationality)” (Woodside, 2010.p.1). It is also defined “as an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009.p. 18).

3.2.1 Justification of using case study

Case study research was used because of its viable reasons, thus it is essential to study an event in its ordinary background. It also enables the researcher to enquire how and why questions, in a bid to comprehend the complication of the processes taking place and the research were being conducted in a new area where few, if any, prior studies have embarked on.

3.3 Population

According to O`Leary (2004) population is the aggregate membership of a distinct class of people, objects, or event. Williaman (2005) also argues that “population is a combined word used to define the total quantity of cases of the type which are subject of your study”. The best way to research any population “is to gather from every element within it and in order to do this there is need to conduct an in depth research on small, defined and accessible population” (O`Leary, 2004. P. 102). The target population at the Manica post consisted of Top management, IT support staff, Accounting department staff and the circulation and the advertisement staff as shown in fig 3.1.

Table 3.1 TARGET POPULATION

FUNCTION OR DEPARTMENT	POPULATION
TOP MANAGEMENT	4
ACCOUNTING AND FINANCE	8
ADVERTISING AND CIRCULATION	14
IN SUPPORT DEPARTMENT	4
TOTAL	30

3.3.1 Sample

From the population in Fig 3.1 above the researcher chose a sample where the questionnaires were going to be administered. Williaman (2004) noted that sampling is a devise or a way that is used in selecting of the members you are able to question, or who are a fair presentation of all the members in a union. Sampling must be done whenever you can gather only a fraction of a population of a group or a phenomenon which you want to study.

3.3.2 Convenience Sampling

Convenience sampling “is the selecting of participations because it is convenient to access and recruit them, with no attempt to represent the general population or to gather up specific, purpose sample” (Chrisler and McCreary, 2010.p. 181). The main advantage of convenience sampling is that it is typically quicker and easier to recruit and it does not necessitate exhaustive work from a resource viewpoint. Convenience sampling was used because it was relatively easier, as it was not costly and it was a well-timed technique as opposed to other probability sampling techniques. Fig 3.2 is a representation of the sample size targeted by the researcher.

Table 3.2: Sample size

FUNCTION	POPULATION	SAMPLE SIZE	% REPRESANTATION
MANAGEMENT	4	3	75
ACCOUNTING AND FINANCE	8	6	75
ADVERTISING AND CIRCULATION	14	9	64
IT SUPPORT TECHNICIANS	4	4	100
TOTAL	30	22	73

The sample was collective of both functional management and staff. The sample comprised of the top management, the finance and accounting staff, the advertising and circulation staff members and the IT administrator together with the IT support technicians. The questionnaires were conveniently allocated and seven interviews were held for data triangulation.

3.4 Data collection

When collecting data “each measure needs to be weighed up and considered in the light of your own research goal, as well as the researchers method’s inherent advantages and disadvantages” (O`Leary, 2004.p. 150).

3.4.1 Sources of data

3.4.2 Primary data

Primary data was used as a source of data due to the fact that the research was a new area of research where few, if any, prior studies have embarked on. The research conducted was a case study and it was based on the activities that are taking place at a certain organization.

Primary data consist of original research done to answer current questions regarding a specific operation (Reid and Bojanic, 2009.p. 222).According to the <https://fhssrsc.byu.edu> (FHSS Research support center) primary data “is data collected by the researcher himself/herself. This is data that has never been gathered before, whether in a particular way, or at a certain period of time. Researchers tend to gather this type of data when what they want cannot be found from outside sources”. Burt, Barber and Rigby (2009) noted that primary data is acquired from organizations and institutions that initially collected the information.

3.4.3 Advantages of primary data

As noted by Mooi and Sarstedt (2011) the main advantage of primary data was that it was directly applicable to the research problem at hand, this is to say that it provided information that was current and precise on the research problem. The other merit of primary data to the research was that the data produced from primary data largely offer better control over data accuracy Wegner (2008).

3.4.4 Disadvantages of primary data

Obtaining primary data was time consuming because it required time to conduct a detailed information-gathering study. It was also expensive relatively to gather data using primary data as a source of data (Reid and Bojanic, 2009.p. 222).

3.4.5 Secondary data

Secondary data “is data collected and processed by others for the purpose other than the problem at hand” (Wagner, 2007), this is information that is already available and that can be used if the need arises. It also noted that it is grounded on the evidence that has previously been gathered, ordinarily by other researchers and agencies and it is said to be “data that is obtained from a source other than the primary source” (Burt, Barber and Rigby, 2009.p. 18).

3.4.6 Advantages of Secondary data

Secondary data have a number of advantages; the researcher used it due to the fact that it is data that has already been gathered, that is information that already exist. Access time is also relatively short, especially if the information is available on the internet (Wegner, 2007). It provides “comparative data which makes it more illuminating interpretation of primary data

and it can be more accurate than primary data, since information on the past events can be obtained accurately from secondary Sources” (Wiid and Diggines, 2009.p. 71).

3.4.7 Disadvantages of Secondary data

Secondary data has its own limitations, in most cases “it does not apply on a specific problem being investigated, as it was collected for other purposes and also accuracy of secondary data accuracy is questionable, as research errors are possible in data collection and analysis” (Wiid and Diggines, 2009.p. 72). Secondary data also uses different measures. (When comparing secondary data from different sources, the research should note the measures that are used)

3.5 Research instruments

3.5.1 Questionnaires

Questionnaires were used as one of the research instruments. According to Conway (1998) a questionnaire is a “concise, preplanned set of questions designed to yield specific information about a particular topic from one or more groups of people”. As noted by Williaman (2005) using questionnaires facilitated the researcher to establish questions and obtain replies devoid of essentially having to talk to every single respondent. As a technique of gathering data, when questionnaires were used they were a very flexible tools, it has to be used cautiously in order to accomplish the requirements of a particular research topic.

The main feature of questionnaire is its impersonality, the questions were fixed that is they did not change according to how the replies developed and they were the same for each respondent, and the person imposing the questions was remote Williaman (2005). Questionnaires are classified into four basic types of questions thus open-ended questions, closed ended questions, partially open-ended question and likert rating scale questions. The researcher used likert rating scale questions in collecting data. It is named after the researcher who developed the scale in 1932. Likert rating scale questions instead of presenting questions they present statements and the participants then are inquired to rate their level of agreement with the statement(Jackson, 2008). The Licket scale questions measures ordinal variables, it is also conceivable to ascribe numerical values to the response options (4= agree and 5= strongly agree).The researcher used Likert rating scale because it is advantageous on the answers to be given and it allows

participants or respondents to give a more differential answer than just yes or no. It even allows respondents to have no opinion at all. However the descriptions of the responses categories must be accurate as possible.

3.5.2 Advantages and disadvantages of questionnaires

Through the use of questionnaires, the researcher was able to contact huge number of respondents hastily, easily and efficiently because the researcher had an option of distribute the questionnaires to the sample in person or of postal questionnaires (since all the researcher has to do is to categorize the sample that will be targeted and post them the list of questions). Questionnaires were also moderately quick and easy to generate, program and interpret. In addition, the respondent not the researcher experienced the time-consuming part of completing the questionnaire. When the questionnaires were distributed they tend to have their own shortcomings thus the arrangement of questionnaire design made it problematic for the researcher to scrutinize complex issues and opinions. This made more difficult for the researcher to gather information that is rich in depth and detail.

3.5.3 Questionnaires administration

According to Neelankavil (2007) questionnaires administration is argued to be the wherewithal of how respondents are contacted so as to acquire the essential information. The researcher used the paper and pencil questionnaire administration, this is a model where the researcher will present the questions on paper so that the respondents will have to fill the paper. The questionnaires were presented in person.

3.5.4 Interviews

According to <http://www.who.int> “an interview are an organized way of talking and listening to people and is another way of collecting data from individuals through conversations”. Undoubtedly, “interviewing is the most commonly used method of data collection in qualitative research and it emphasizes on open-ended, non-leading questions, focuses on personal experience and seeks to build rapport with interviewee ” (King and Horrocks, 2010). Interviews are means by which partakers can get intricate or involved and talk about their opinions. In addition, the interviewees will be capable to deliberate their opinion and analysis pertaining to a

tabled state of affairs. There are three evidently distinguishable classes or fundamental classes of interviews that is structured, semi-structured and unstructured.

3.5.4 Advantages and Dis advantages of interviews of interview's

There was room for clarification, as in the event that the interviewee did not understand the question posed to them, they could seek clarification. The interviews conducted also permitted further comprehensive questions to be asked and they also attained a high response rate, however they were time-consuming to set up, interviewing, recording, examining, response and reporting. They were costly and also diverse interviewers may comprehend and transcribe interviews in different ways.

3.6.1 Data validity and reliability

In order for the researcher to ascertain the data validity and reliability the researcher used data triangulation. Data triangulation is a technique of verifying information from several sources to mitigate some irregularities in the research process (O`Donoghue and Punch 2003). The researcher used questionnaire as the main data collection method for the research and he used interviews by making use of a sample so as to verify the data for validity and reliability of data obtained through questionnaires.

3.6.2 Data presentation and analysis

According to Guerrero (2010) Presentation of data is argued to be a soft form of data analysis, in the rationale that it is the preliminary phase headed for the official analytical tools. The data presentation was based on the claims on which the data supported from the sample that had been chosen. It is also included graphical presentations to give an overview of data collected. The researcher used a spread sheet as a tool to analyze data making use of basic graphs.

3.7 Summary

This chapter deliberated on the research methodology that was used in carrying out the research. It provided detailed information about the research design, the population, sample, primary and

secondary data and the data collection methods used. The following chapter is data presentation and analysis.

CHAPTER 4

PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter centers on the presentation of data and analysis of information obtained from the research findings. The information obtained and gathered from questionnaires and interviews, that is the research findings will be presented, analyzed and interpreted in relation to some of the theories by scholars in the research study. The analysis of data will include both quantitative and qualitative data and it is presented by making use of simple tables and graphical presentations. Explanations and interpretations are made so as enhance understanding of data presented on the tables and graphs.

4.1 Response rate

The sample size consisted of 22 respondents

4.1 Analysis of responses from questionnaires

Twenty two (22) questionnaires were distributed to the top management, Accounting and finance department, ICT support staff and the Advertising and circulation department. From the questionnaires distributed 21 respondents returned the questionnaires, only one questionnaire was not returned. There was a 95% response rate.

Table 4.1 Questionnaires response rate

Descriptions	Number of respondents	Percentage distribution (%)
Questionnaires issued	22	100
Questionnaires returned	21	95

4.1.2 Academic qualifications

Table 4.2 Academic qualification

Academic Qualification	Responses	Percentage (%) of responses
Certificate	1	5
National Diploma	4	18
ACCA, CIS or CIMA	4	18
Degree	10	45
Masters	3	14
Doctorate	0	0
Total	22	100

From the table above the results shows that 5% have a certificate, those with a National diploma and ACCA/CIS/ CIMA are 18% for both qualifications levels, 45% of the respondents have degrees and this happen to be a substantial number of the population and those with a master's qualification level constitutes 14% of the total sample. The levels of qualification reflected on the table above shows that the sample constitutes participants who are intellectuals and have the ability to make reliable and relevant contributions to the research study.

4.1.3 Correlation between an accounting information system and organizational performance.

Table 4.3 The Correlation between AIS and organizational performance.

Strength of feeling	Responses %
Agree	43
Strongly disagree	38
Disagree	14
Strongly disagree	0
Uncertain	5
Total	100

The question sought to establish whether a relationship, correlation, association or connection exist between accounting information system and organizational performance. Out of the total respondents 43% agreed that there is a correlation between an accounting information system and organizational performance, 38% strongly agreed that there is a correlation between an AIS and organizational performance, however 14% disagreed that there is a relationship and also 5% are not certain on whether a relationship exist between the organizational performance and an AIS.

From above information on the table 4.3 it shows that 81% of the sample agreed whilst 14% disagreed that there is a correlation between an accounting information system and organizational performance. Grande, Estebanez and Colomona (2010) there is a progressive relationship amid an accounting information system design, organizational strategy and performance, this is supported by recent literatures that propose light evidence of the correlation between AIS and financial performance.

4.1.4 Effects of information produced by an AIS on decision making.

This was an inquiry on whether the outputs from an accounting information system have an effect on management decision making. The results shows that 33% agreed that the information produced have an effect and 52% strongly agreed, 5% disagreed and 10% are not certain whether the output from an accounting information system has an impact on decision making.

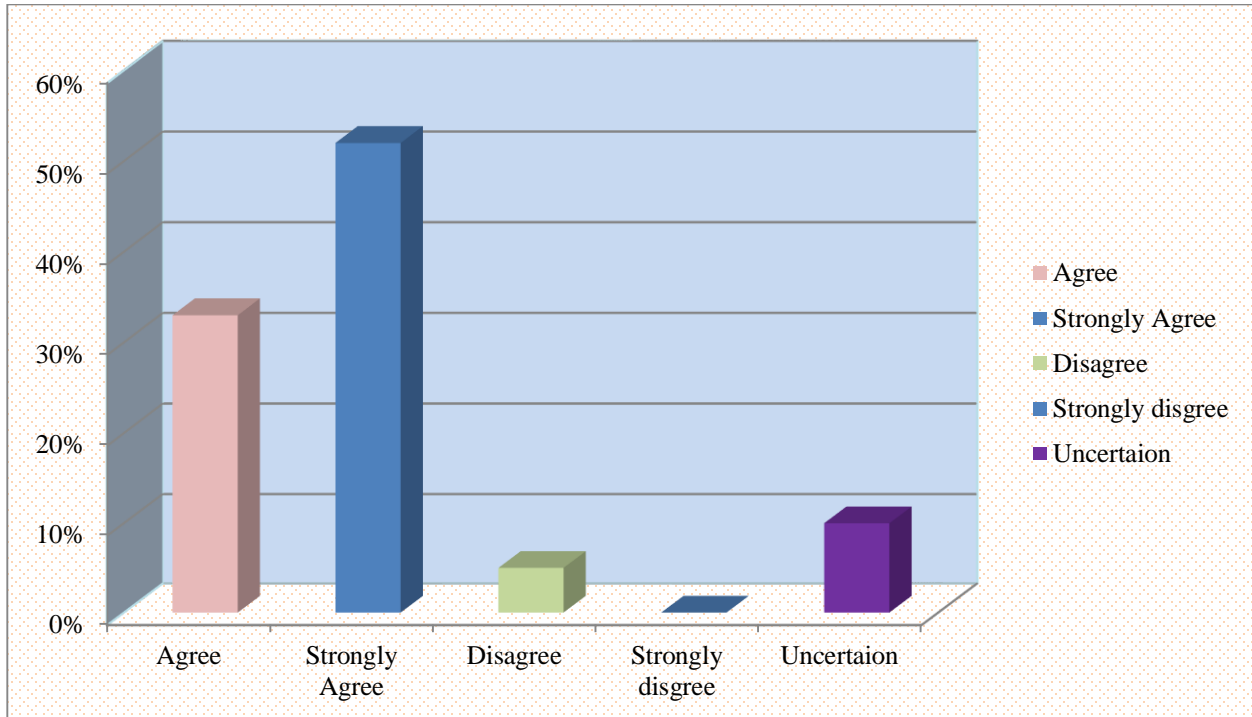


Fig 4.1 Accounting information system and decision making

Inclusively 85% agreed that the information produced by an accounting information system has an effect on decision making and 5% disagreed. It is argued that AIS is a whole of associated mechanisms that are put together to assemble information, raw data or regular data and convert it into financial data for the purpose of reporting them to decision makers (Mahdi Salehi, Vahab rostami and Abdolkarim Mogadam, 2010).

4.1.5 Decision making and its influence on organizational performance.

Table 4.4 Decision making and organizational performance

Strength of feeling	Responses %
Agree	19
Strongly agree	66
Disagree	5
Strongly disagree	5
Uncertain	5
Total	100

The question sought to establish whether decision making has an influence on organizational performance. Table 4.4 shows that from the respondents, 19% agreed that decision making have an influence on organizational performance, 66% strongly agreed and the remaining have 5% disagreed, 5% strongly disagreed and also 5% are not certain.

Inclusively 85% of the respondents agreed and 5% disagreed that decision making from AIS have an influence over organizational performance at every level both management and staff level. Soudani (2012) argues that information is important data processed in an attempt to make available a framework to assist in making organizational decisions.

4.2 Problems associated with the use of a non-integrated accounting information system.

4.2.1 Duplication of effort due to the use of two separate accounting system.

Table 4.5 Duplication of effort

Strength of feeling	Respondents %
Agree	19
Strongly agree	76
Disagree	0
Strongly disagree	0
Uncertain	5
Total	100

The question sought to investigate whether there is duplication of effort as relevant data is captured into two separate accounting information system. The respondents on Table 4.5 19% agreed that there is duplication of effort, 76% strongly agreed, none of the respondents disagreed and 5% are not certain.

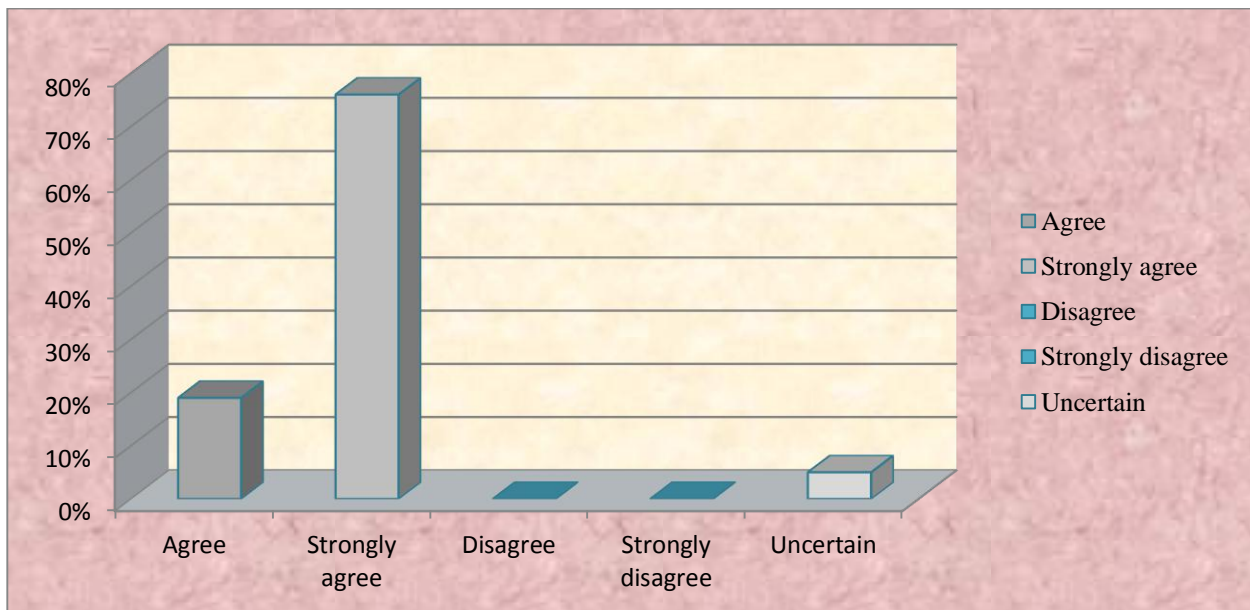


Fig 4.2 Duplication of effort

From the respondents above 95% agreed that there is duplication of data because relevant data is captured in two separate accounting information systems due to the use of non-integrated accounting information system. Walker (2006) argues that there is repetition of work by means of capturing relevant data into two separate accounting information system and ultimately it hinders efficiency and slows down progress within the organization.

4.2.2 Difficulty in reporting and sharing information (because it is time consuming to convey data from two separate accounting systems).

The question sought to identify if there is difficulty in reporting and sharing information when using non-integrated accounting information systems or two separate accounting systems.

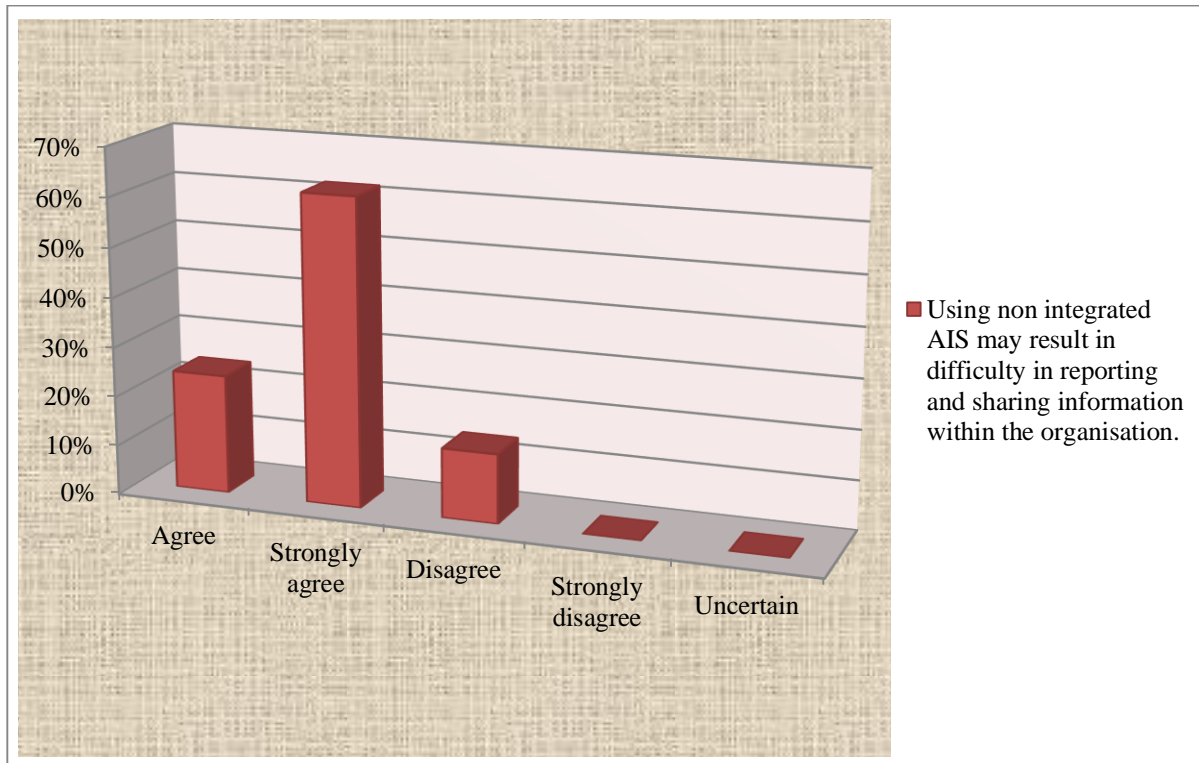


Fig 4.3 Difficulty in reporting and sharing information

From the Fig above 24% of the respondents agreed, 62% strongly agreed and 14% disagreed. The data collected from the respondents that are on Fig 4.3 shows that 86 % agreed and 14% disagreed. Bhansal (2013) assets that the use of a non-integrated accounting information system have certain drawbacks, which are difficulty in reporting and sharing information as it is time

consuming to convey information from two separate accounting information systems when preparing reports.

4.2.3 Redundancy and disorganized database structure as a result of using non-integrated AIS.

Table 4.6 Redundancy and disorganized database structure

Strength of feeling	Respondents %
Agree	43
Strongly agree	28
Disagree	10
Strongly disagree	0
Uncertain	19
Total	100

The question sought to find out whether the use of a non-integrated accounting information system can lead to redundancy and a disorganized data base structure, the respondents illustrates that 43% agreed, 28% strongly agreed that it can lead to redundancy and a disorganized data structure whilst 10% respondents disagreed and 19% are not certain.

Overally 73% of the respondents agreed and 9% disagreed. Bansel (2013) argues that the use of a nonintegrated accounting systems results in redundancy and disorganized database structure.

4.3 The impact of a non-integrated accounting information system on organizational performance.

4.3.1 Loss of revenue as a result of using a non-integrated accounting information system.

The question sought to find whether the use of non-integrated accounting information system can lead to loss of revenue within the organization.

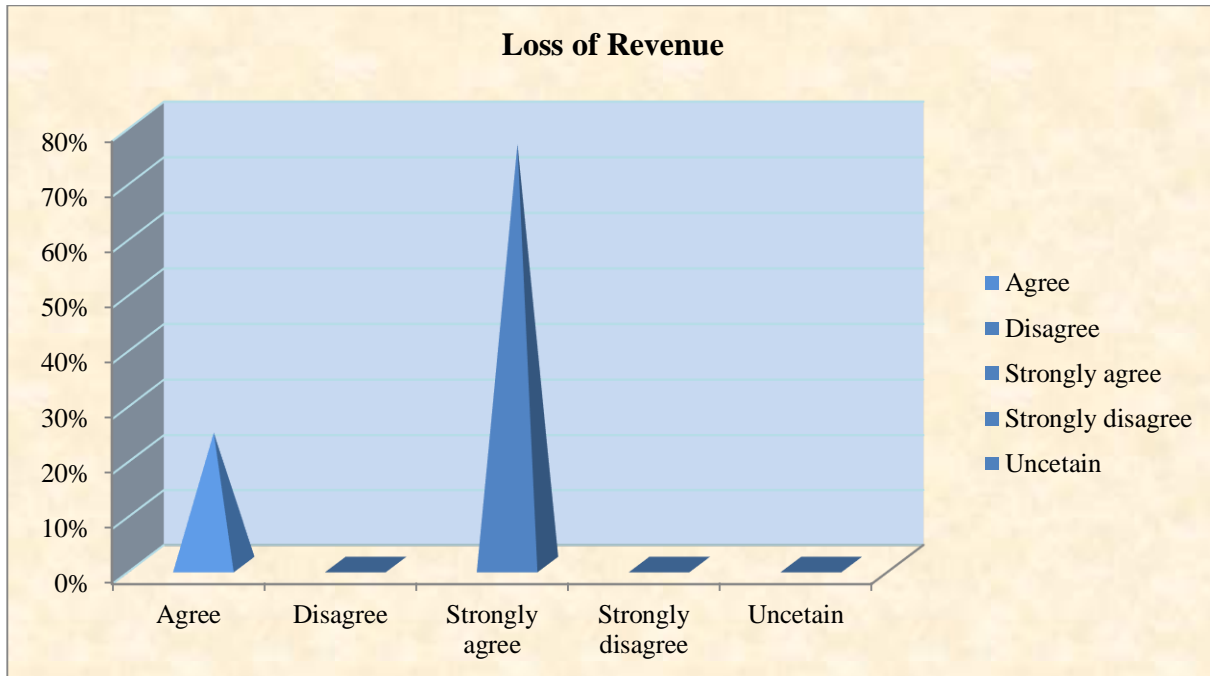


Fig 4.4 Loss of Revenue

The fig above confirms that 24% agreed and 76% respondents strongly agreed that there was loss in revenue due to decrease in the organization`s subscriber base. This is to say that the use of two separate accounting information systems have some effects on the organizational performance. The information represented on table 4.9 shows that all the respondents agreed that there was loss of revenue thus 100%.

Due to the use of two separate accounting systems the organization can result in loss revenue due to failure to provide seamless customer service, it has been argued that “customers now anticipate to be able to access the company through multiple different channels and get a smooth, seamless experience across all of them” (Kahn, 2012, p. 63).

4.3.2 Bad publicity as a result of using two separate accounting systems.

Table 4.7 Bad publicity

Strength of feeling	Respondents %
Agree	71
Strongly agree	19
Disagree	0
Strongly disagree	0
Uncertain	10
Total	100

From table 4.8 above 71% respondents agreed, 19% respondents strongly agreed that the use of a non-integrated accounting information system have negatively impacted on organization through bad publicity to its stakeholders who they do business with and 10% are not certain.

The information gathered from the respondents conclusively shows that 90% of the respondents agreed that the use of a non-integrated accounting system resulted in bad publicity about the organizations accounting processes. According Jackson and Sawyer (2002) the use of non-integrated accounting systems can result in bad publicity as it does not provide useful information concerning transaction, such as the quality of materials manufactured and the timeliness of delivering or customer satisfaction..

4.3.3 Financial loss as a result of the use of two separate accounting systems.

Table 4.11 Financial loss

The question posed on 4.3.3 sought to inquire the extent to which the use of separate accounting information system can result in financial loss.

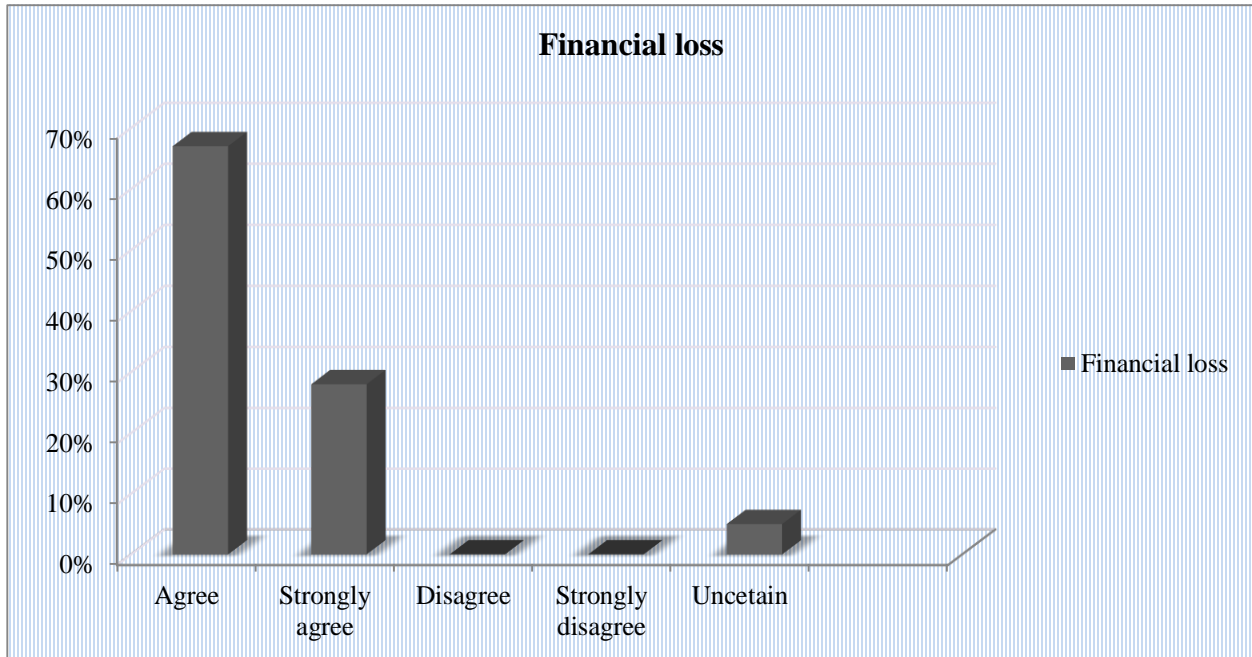


Fig 4.5 Financial loss

The data collected from the respondents displays that 64% agreed to that effect, 27% strongly agreed and 10% are those respondents who are not certain of the impact. Overall 90% agree that there was financial loss. Jackson and Sawyer (2002) noted that managing multiple systems is will result in financial loss.

4.4 The attributes that affect data quality in an AIS.

4.4.1 The impact of an accounting information system on data quality.

The question sought to establish whether the types of accounting system adopted by an organization have an effect on the output or the data quality produced.

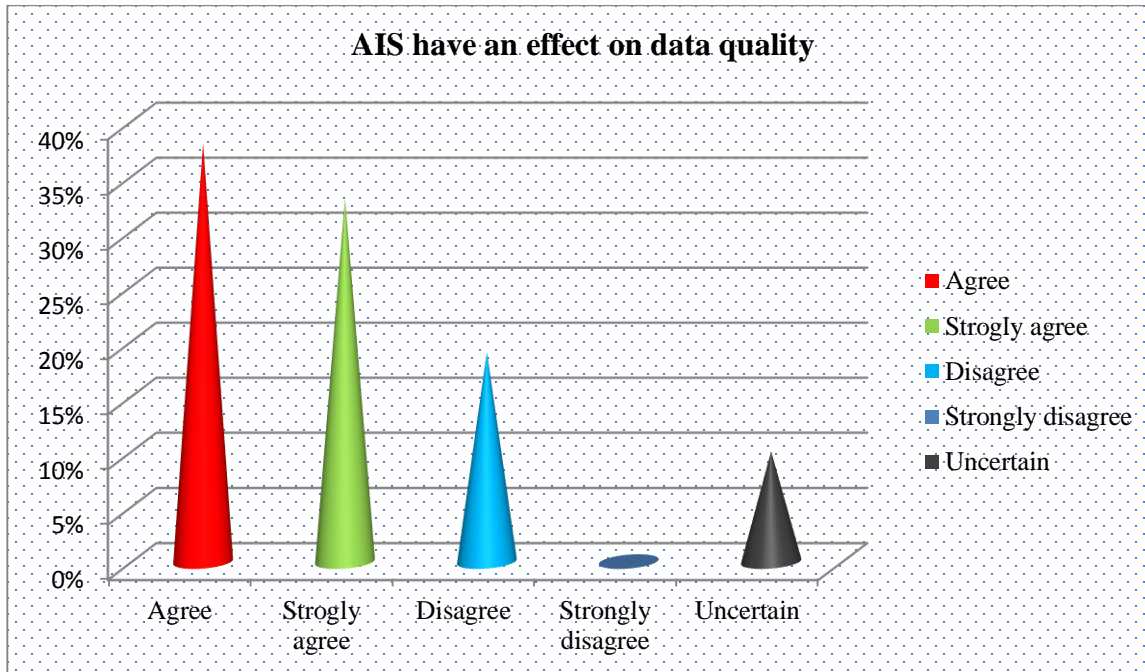


Fig 4.6 AIS have an effect on data quality

The respondents on the Fig above shows that 38% agreed, and 33% strongly agreed however 19% disagreed to that effect and 10% are not certain of their position about whether the type of an accounting information system used within the organization have an effect on the quality of data produced within the organization.

The overall position confirms that 71% of the respondents agreed and 19 % disagreed. Hongjiang Xu, (2010) noted that within an AIS, the quality of the information or data provided is imperious to the success of the systems.

4.4.2 The effect of competence of personnel and the input controls on data quality.

The question sought to find whether the competence of personnel within the organization and the input controls has an impact on data quality.

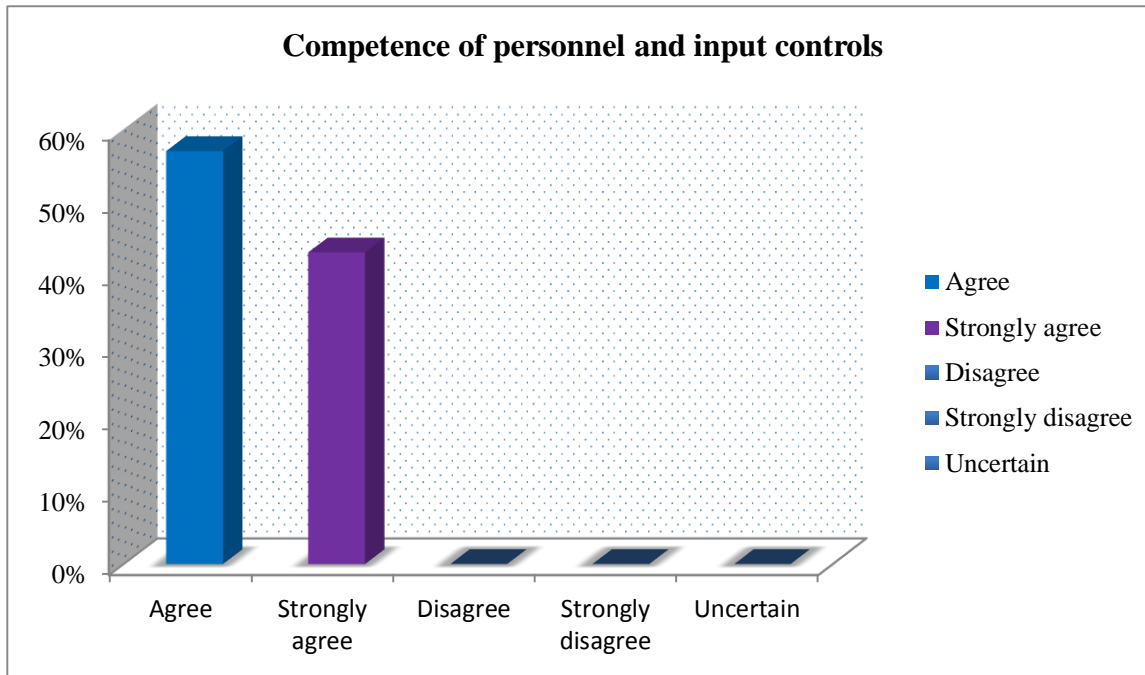


Fig 4.7 Competence of personnel and input controls

The Fig above shows that 57% agreed and 43% strongly agreed that both the competence of personnel and the input controls have a bearing on the quality of data produced.

As noted by Hongjiang Xu (2008) that the organization should take into account the most important aspect or components to improve and maintain data quality (DQ) that is the “competence of personnel and the input controls”.

4.4.3 Employing a data quality manager as a measure to improve and maintain data quality.

Table 4.8 Data quality manager

Strength of feeling	Respondents %
Agree	33
Strongly agree	0
Disagree	43
Strongly disagree	24
Uncertain	0
Total	100

The question essayed to find out if employing a data quality manager can help the organization to improve and maintain the quality of data. On the table 4.8 above 33% respondents agreed that employing a data quality manager can help the organization to improve the quality of data within the organization, however 43% disagreed and 24% strongly disagreed.

Overally 33% of the respondents agreed and 67% disagreed. Hongjiang Xu (2008) argues that it is difficult to employ a data quality manager in small and medium organizations, however the organization have a duty to combine the roles of a data quality manager into those of an appropriate senior personnel in a bid for them to be responsible for DQ in AIS. Fig 12

4.4.4 Data quality strategy as a measure to improve and maintain DQ.

Table 4.9 Data quality strategy

Strength of feeling	Respondents
Agree	47
Strongly agree	29
Disagree	19
Strongly disagree	0
Uncertain	5
Total	100

The question sought to find out whether adopting a data quality strategy can be used in order to improve and maintain the quality of data in an organization. From the respondents 47% agreed that it can be adopted as a means to improve data quality, 29% strongly agreed to that effect and 19% disagreed and 5% is not certain.

Conclusively 76% agreed, 19% disagreed, Bhansali (2013) noted that establishing a procedure into action to capture, clean or conserve data will make available a flawless regulation on how the organization aim to achieve its objectives and clear instructions to those working together within the organization.

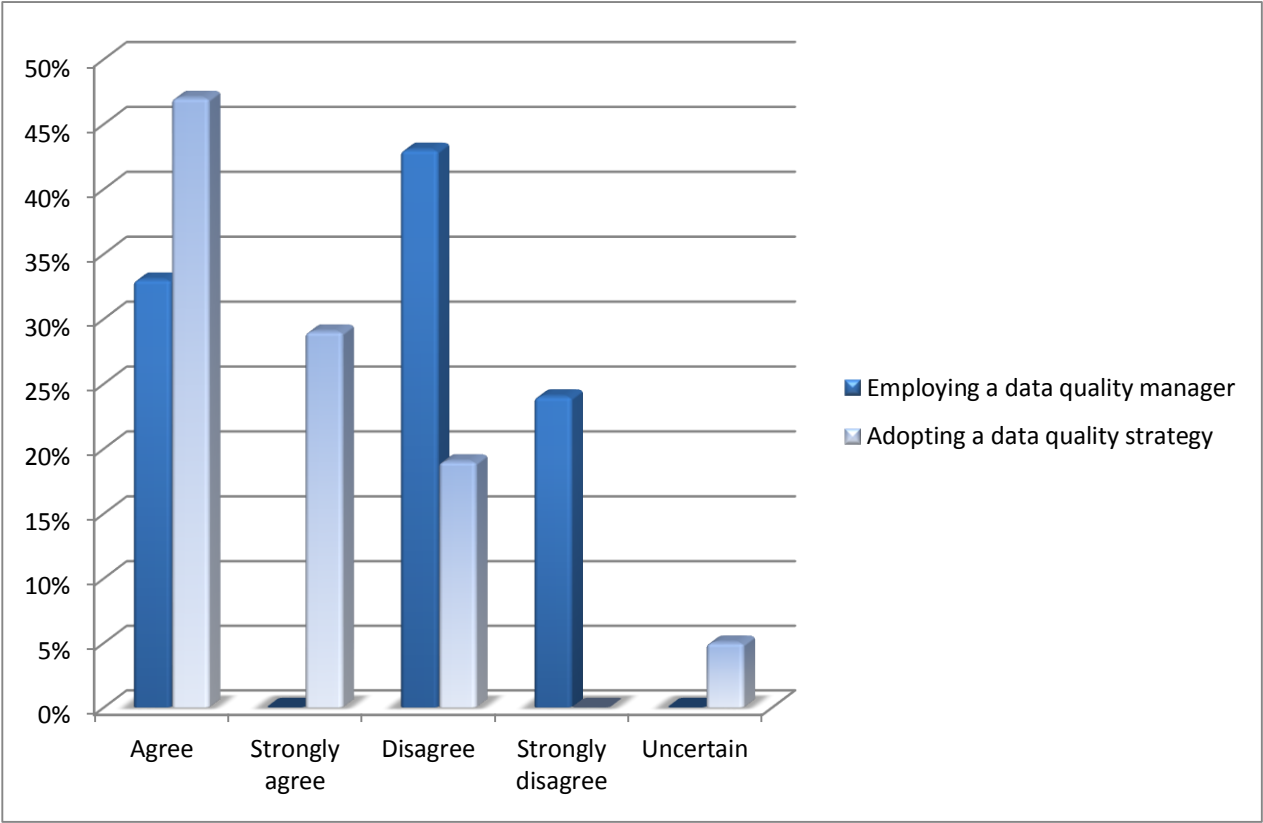


Fig 4.8 Employing a data quality manager and Adopting a data quality strategy

4.5 Enterprise application integration (EAI) and integration of two separate accounting systems.

The question attempts to identify the best practice to solve problems that the organization is facing of using two separate accounting systems which are not integrated.

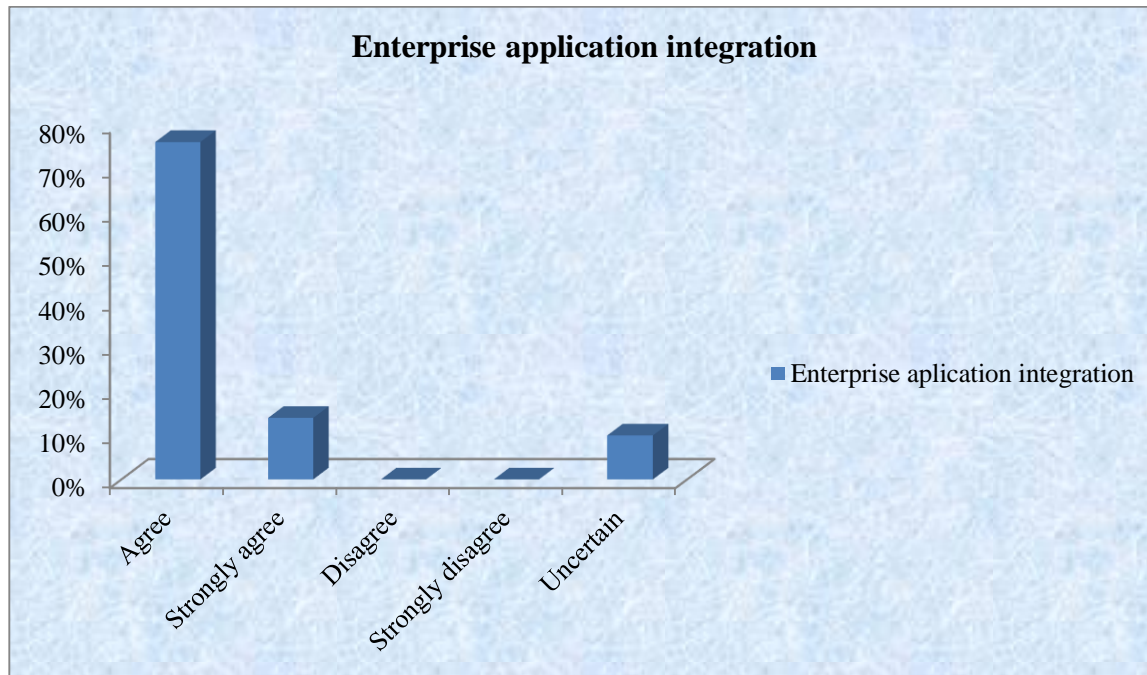


Fig 4.9 Enterprise application integration (EAI)

Fig 4.8 indicates that 76% agreed that it can be used to solve the current problem of using separate accounting systems, 14% strongly agreed that EAI can be used to solve the current problem and 10% are not certain about the implementation of EAP systems.

Overall 90% agreed and 10% are not certain, Rainer and Watson (2012) argue that EAI can be used to integrate existing systems by providing layers of software that connect applications together and it also provides integration of data and services between disparate systems, integration between silos and integration between companies.

4.5.1 Business process management software and integration of separate AIS of the organization and external partner and services (BPM).

The question sought to inquire whether the implementation of business process management software can be used to solve the current problems being experienced by the organization.

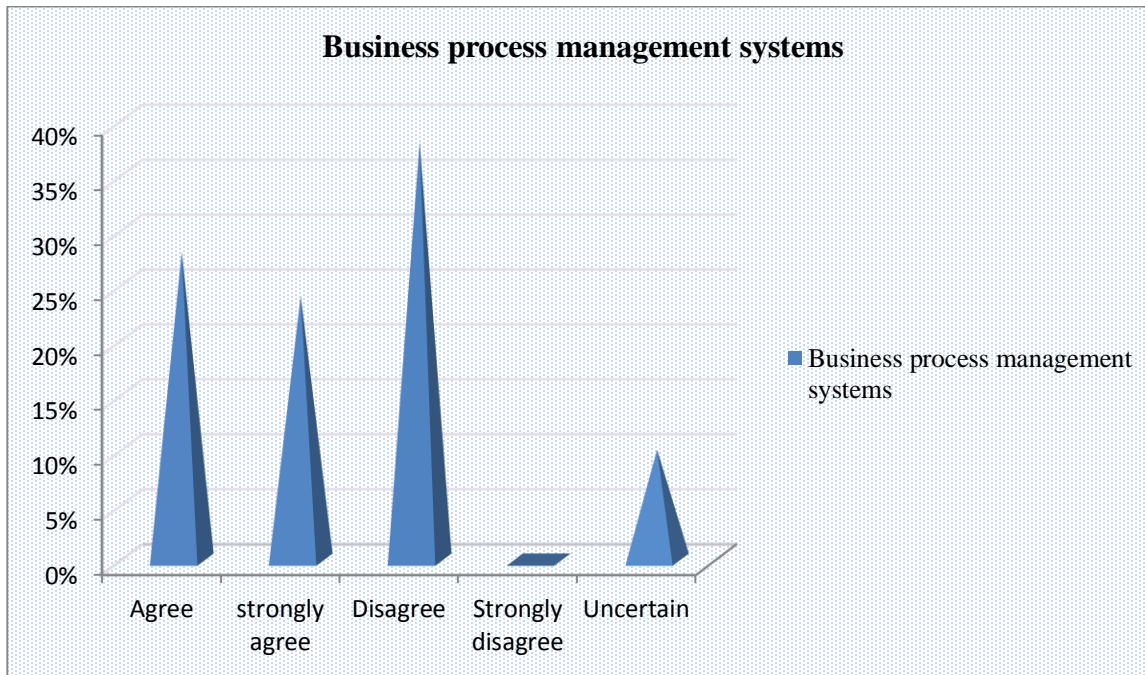


Fig 4.10 Business process management software

The respondents from Fig 4.10 shows that 28% agreed that business process management system can be used to solve the problems of using two separate accounting information system, 24% strongly agreed to that effect, 38% disagreed and 10% are not certain.

Conclusively 52% of the respondents agreed and 38% disagreed, Business process management (BPM) software is argued to be a much larger system that system integration that provides a comprehensive method of integrating manual and automated internal control application, and system, as well as integrating external partners and services (Rainer and Watson, 2012).

4.6 Interview responses

4.6.1 Interview Responses rate

Table 4.10 Interviews responses

Description	Number of interviewees	Percentage representation
Interviews scheduled	7	100
Interviews conducted	5	71
Interviews not conducted	2	29

The interviews were scheduled on 7 respondents inclusive of all the top management and functional heads for Accounting and finance, the ICT administrator, and the advertising and circulation department. These interviews were done in order to acquire more comprehensive data and to check the validity and reliability of data given in the questionnaires. On the seven interviews scheduled only five were conducted.

4.6.1 Do you think there is a correlation between an accounting information system and the performance of an organization?

From the five interviews conducted 80% of the interviewees agreed that there is a correlation between an accounting information system and organization performance however 20% of disagreed. This position was also supported by the data acquired from the questionnaires on question 4.1.3, the responses that confirms that 81% agreed that there is a correlation between AIS and organizational performance. Grande, Estebanez and Colomona (2010) noted that there is a progressive relationship amid an accounting information system design, organizational strategy and performance, this is supported by recent literatures that propose light evidence of the correlation between AIS and financial performance.

4.6.2 Have you been experiencing financial or revenue losses as a result of the using a non-integrated accounting information system?

The interviews conducted shows that all the respondents thus 100% agreed that the entity has been experiencing some drawbacks such as loss of revenue due to decrease in the organizations subscriber base and also financial loss though writing off bad debts because the organization could not validate their debtors balances in the system hence this has negatively affected the

organization. Jackson and Sawyer (2002) noted that the use of multiple systems is costly and this is also reinforced by the data from questionnaires that confirms that all the respondents agreed that there was financial loss, which were effects of using two separate AIS.

4.6.3 What other challenges have you been facing within the organization due to the use two separate accounting systems?

The interviewees elaborated that the organization has been failing to close their monthly accounts in time in order to produce reports, since it is time consuming to convey data or sharing data from one system to another in a bid to consolidate their financial data for reporting purposes. They also noted that there was bad publicity about the organization accounting process from its regular customers. It was also argued that there was duplication of effort as relevant data is captured into two separate accounting systems. From the questionnaires on 4.2.2 the data collected also shows that 86% of the respondents agreed that there it is difficult to report and share information and this is supported by Bhansal (2013) who argues that difficulty in reporting and sharing information within the organization is one of the drawbacks of using a dis integrated AIS.

4.6.4 Do you think it is essential for the organization to adopt a data quality strategy to improve and maintain data quality?

Out of the five interviews conducted 60% interviewees agreed that the organization have been facing data quality challenges as the organization was failing to validate their debtor's balances in the system, and they are of the opinion that engaging a data quality strategy can take the organization in another dimension in improving and resolving their data quality issues. The interviewees expressed interest in adopting a data quality strategy because they argued that data quality has been an asset that most organization has adopted as measure to improve their competitive base in the market.

This confirms with the information collected through questionnaires on 4.4.4 where 76% respondents agreed that adopting the data quality strategy can be used as a measure to improve and maintain data quality. This is also supported by Rothlin (2010) who noted that within the process of information planning data quality should also be considered as a fundamental part of business and IT strategy.

4.6.4 EAI systems and BPM are some of the measures that were developed to solve the problems associated with the use of a non-integrated AIS, from the above mentioned systems, which system do you think will be the best practice to solve your current problems.

Explanations were made about what EAI system and BPM comprise of and how these processes can be used to solve the current problems faced by the organization of operating a non-integrated accounting system and all the facilities that it offers. All the interviewees agreed that EAI can be used as the best practice to solve the drawbacks of non-integration. This insight also corresponds with the data collected from the questionnaires on 4.5 that indicates that 76% agreed that EAI system can be used to solve the current problems. This is supported Wheeler, Dull and Gelinas (2014) who argues that EAI system is a slant that cartels processes, software and hardware to connect two or more systems together permitting them to act as one system.

4.7 Data Triangulation

On the above information that was acquired through interviews, data validity and reliability have been achieved and confirmed since the information or data that was acquired through questionnaires tally with the information that has been also acquired by through interviews.

4.8 Secondary data

Table 4.19 SUBSCRIPTION SALES REVIEW

YEA R	TOTAL SUBSCRIPTIONS SALES FIGURES	% INCREASE OR DECREASE IN REVENUE
2011	\$265,200.00	-
2012	\$187,200.00	-29.41176471
2013	\$131,040.00	-30

Information presented on Fig 4.15 show the subscription sales review from 2011 to 2013 and it also shows the percentage decrease in revenue. The information shows that from 2011 to 2012 revenues decreased by 29.41 % and it further decreased by 30% in 2013. This confirms that the entity has been losing revenue in an increasing rate. This has been supported by the data collected from the questionnaires on question 4.3.1 where all the respondents agreed that there was loss of revenue within the organization. This is also supported by scholars, that the use of two separate accounting systems within the organization can result lose revenue due to failure to

provide seamless customer service, it has been argued that “customers now anticipate to be able to access the company through multiple different channels and get a smooth, seamless experience across all of them” (Kahn, 2012, p. 63)

4.7.1 Summary

This chapter was focused on data analysis and data presentation. The information provided by the respondents was being analyzed and presented into meaningful data. The data was analyzed on a spread sheet and it was presented by making use of simple tables, graphs and pie charts. The following chapter provide the summary of the whole research, conclusions and recommendations about the research study.

CHAPTER 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This is the last chapter of the research study. The previous chapter was centered on data presentation and analysis of data that was collected. The data collected was centered on the investigation of using non-integrated AIS on organizational performance. This chapter is basically centered on the summary of the whole research study, conclusions and the recommendation to be made on the research project.

5.1 Summary of the research study

The research started on chapter 1, this chapter was focused on the background of study, statement of the problem, research objectives and research questions. It also includes the limitations and the delimitation of study and also definition of terms.

Chapter two looked at the literature review of the research study that is a perilous examination of the ration of the research study. The review of literature was centered on the objectives of the research study, to critically analyze the literature on the relationship between AIS and organizational performance and also what other scholars have reviewed about integrated and non-integrated accounting systems in line with the objectives of study. The chapter also reviews the developments and some of the measures that can be used to solve the research problem.

Chapter three is typically the research methodology of the study. It is focused on the how the researcher conducted his research, the research design adopted by the researcher, the target population of the study, the sample and the research instrument that was used to collect data in the field. The process is undertaken in order to solve the practical problem at hand and add knowledge.

Chapter four is essentially centered on data analysis and data presentation. The data analyzed on chapter four is the information that was collected in chapter three. The data collected through questionnaires and interviews was analyzed by using a spread sheet and it was then presented on simple tables and also making use of graphs for graphical presentations. Both primary and secondary data are analyzed

5.2 Major research findings

5.2.1 To establish the relationship between AIS and organizational performance.

It has been identified that there is an association or relationship between an accounting information system and organizational performance this is also supported by scholars in the literature who argues that there is a positive association between an AIS and organizational performance.

5.2.2 To identify the problems associated with the use of a non-integrated accounting information system.

It was identified that using multiple accounting systems have a negative influence on the organization. The problems that have been identified are, providing seamless customer service, difficulty in reporting and sharing information from multiple accounting systems within the organization, duplication of effort as relevant data is captured into two separate accounting systems, redundancy and a disorganized database structure, difficulty in complying with reporting requirements and also lack of capacity to process improvements.

5.2.3 To establish the impact of using a non-integrated accounting information system on organizational performance.

It has been established that using non-integrated AIS it has a negative bearing on organizational performance. It has also been identified that it is costly to maintain multiple accounting systems and it does not provide other non-monetary information. It also does not provide useful information concerning transaction such as the quality of materials produced, the timeliness of its delivery or customer satisfaction with an order at all. Therefore this will intern result in loss in revenue, bad publicity and also financial loss within the organization as experienced by Zimpapers (The Manica post).

5.2.4 To identify other attributes that affect data quality in an accounting information system.

It has been identified that there are other attributes that have a bearing on the quality of data produced within an organization. It has been identified that, the competence of personnel and input controls have an effect on data quality. It has also been noted that regardless of the type of

the accounting information system used, there is need to adopt a data quality strategy in order to improve and maintain the quality of data within an organization.

5.2.5 To recommend the organization on measures that can be adopted to mitigate the problems associated with the use of a non-integrated accounting information system.

In a bid to solve the problems of using multiple accounting information systems, the organization can make use of enterprise application integration (EAI) system or business process management software (BPM). The data collected confirm that the best practice to solve the organizations drawbacks of using non-integration AIS is to adopt the use of enterprise application integration systems (EAI).

5.3 Conclusion

The major objective of the research study was to investigate the impact of a non-integrated accounting information system on organizational performance. This study indicates that the organization has been negatively affected by using a non-integrated accounting information system and also the absence of a data quality strategy that has also affected its data quality. The research was successful because all the objectives of the research study were achieved.

5.4 Recommendations

The recommendations have been strategically been prepared focusing on the case study in question of Zimpapers (1980) Ltd.

5.4.1 Recommendations to Zimpapers (1980) Ltd

Integration of separate accounting systems

- The company is recommended to use Enterprise application integration (EAI) system to integrate its separate accounting information systems (SAGE X 300 and Spread sheet), this will ameliorate duplication of effort, difficulty in reporting and sharing information within the organization and lack of capacity for process improvement. It is argued that “the main driver for EAI is the desire to share data and business processes across existing applications within an enterprise” (Dr. Lui etail, 2011).

Integration with external business partners

- The company is advised to make use of Enterprise application integration system to integrate the organizations AIS with its external business partners such as banks and also clients so as to attain real-time information and improve efficiency on service delivery. Dr. Lui et al (2011) noted that through the influence and aptitude of the Internet, a prospect arose to advance communication between different companies through integration.

Adopting a data quality strategy

- The company is also advised to adopt a data quality strategy in order to maintain and improve its data quality. This will assist the organization to reduce the risk of misstatement by eradicating errors. Bhansali (2013) noted that establishing a procedure into action to capture, clean or conserve data will make available a flawless regulation on how the organization aim to achieve its objectives and clear instructions to those working together within the organization.

Recruit competent personnel

- The company is also advised to recruit competent personnel because it is argued to be an important attribute towards attaining high quality information within the organization, Hongjiang Xu (2010) noted that the competence of personnel is as important as a suitable accounting information system.

Emphasis on input controls

- The company should place emphasis on input controls in order to improve the quality of data. Hongjiang Xu (2010) argues that input controls are the utmost significant control and this should be assimilated with data supplies quality management to improve and maintain data quality within the organization.

5.5 Suggested areas of study

The use enterprise application integration has amplified throughout the previous years. However there has been a development in which organizations are now undertaking the use of e-business to improve revenue and to be competent by making use of latest technology, this has created a gap on the usage of AIS on e-business. Further research can be conducted on the impact of accounting information system on e-business efficiency.

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APPENDIX 1

Midlands State University

P.Bag 90 55

Gweru , Zimbabwe

10 September 2014

To the General Manager

ZIMPAPERS (The Manica Post)

P.O. BOX 87 C HERBERT CHITEPO

MUTARE

Dear Sir/ Madam

RE: REQUEST TO CONDUCT A RESEARCH

I am a student at the Midlands State University studying the bachelor of commerce accounting honours degree. I am requesting to carry out a research at your organization. The research topic is an investigation on the impact of a non-integrated accounting information system on organizational performance. (Case of Zimpapers 1980 LTD)

Any information provided will be strictly confidential and is merely going to be used for academic purposes only.

Yours faithfully

Kudakwashe Mangwende

APPENDIX 11

COVER LETTER

ZIMPAPERS (The Manica Post)

P.O. BOX 87 C HERBERT CHITEPO

MUTARE

10 September 2014

Dear sir/Madam

RE: QUESTIONNAIRES TO ACQUIRE DATA

I am a student at the Midlands state university who is currently studying towards the attainment of the bachelor of commerce accounting honours degree. In order to partially fulfill the requirement of the degree program me, I am carrying out a research on the “Investigation of the impact of a non-integrated accounting information system on organizational performance” (a case of Zimpapers 1980 LTD).

You are kindly requested to assist in the completion of the attached questionnaires to this letter. The information that you will provide will be treated with confidentiality and will be used for academic purposes only. Please kindly complete the questionnaire by providing the ticks in the appropriate boxes.

Your contribution is immensely appreciated.

Yours faithfully

Kudakwashe Mangwende

Kindly contribute to the body of knowledge by responding every question.

Please tick where applicable

1a. what is your gender? Male Female

1b. Age

18 – 25 26 – 35 36 – 45 46 – 55 55 and above

Please tick where applicable

1c. Management Accounting and finance department
 ICT department Advertising and circulation department

1d. Tick your highest academic qualifications

Certificate Higher national diploma Degree
 ACCA/CIS/SIMA Masters Doctorate

1. There is a correlation between an accounting information system and organisational performance.

Agree Disagree Strongly agree Strongly disagree Uncertain

2. The information produced on an AIS have an effect on management decisions making.

Agree Disagree Strongly agree Strongly disagree Uncertain

3. Decision making within an organisation have a significant influence on organisational performance.

Agree Disagree Strongly agree Strongly disagree Uncertain

4. When using non-integrated AIS there is duplication of effort as relevant data is captured into two separate systems.

Agree Disagree Strongly agree Strongly disagree Uncertain

5. The use of a non integrated AIS system may result in difficulty in reporting and sharing information because it is time consuming to convey data from sepate accounting systems.

Agree Disagree Strongly agree Strongly disagree Uncertain

6. A non-integrated accounting information system may lead to a redundant and disorganized database structure due to repetition of the same data in different system.

Agree Disagree Stongly agree Strongly agree Uncertain

7. There was loss of revenue due to a decrease in the organisation`s subscriber base as a result of the effects of a non integrated accounting information system.

Agree Disagree Strongly agree Strong disagree Uncertain

8. The organisation expirienced bad publicity about its accounting processes due to the effects of a non integrated accounting information system.

Agree Disagree Strongly agree Strongly disagree Uncertain

9. There was financial loss due to failure to validate the debtors figures in the system as a result of the use of a non integrated accounting information system

Agree Disagree Strongly agree Strongly disagree Uncertain

10. The type of an accounting information system used in an organization has an effect on the quality of data produced.

Agree Disagree Strongly agree Strongly disagree Uncertain

11. The competence of personnel and the input controls have an influence on the quality of data produced from AIS.

Agree Disagree Strongly agree Strongly disagree Uncertain

12. Employing a data quality manager can be used to improve and maintain the quality of data within the organization?

Agree Disagree Strongly agree Strongly disagree Uncertain

13. Adopting the use of a data quality strategy can be used as a measure to improve the quality of data produced.

Agree Disagree Strongly agree Strongly disagree Uncertain

14. Enterprise application integration (EAI) can be used as a measure to solve the current problems faced by the organization of using two separate accounting systems.

Agree Disagree Strongly agree Strongly disagree Uncertain

15. Business process management software can be used to integrate accounting information system of the organization and external partner and services (BPM).

Agree Disagree Strongly agree Strongly disagree Uncertain

INTERVIEW QUESTIONS

1. Do you think there is a correlation between an accounting information system and the performance of an organization?
2. Have you been experiencing financial or revenue losses as a result of the using a non-integrated accounting information system?
3. What other challenges have you been facing within the organization due to the use two separate accounting systems?
4. Do you think it is essential for the organization to adopt a data quality strategy to improve and maintain data quality?
5. EAI and BPM are some of the measures that were developed to solve the problems associated with the use of a non-integrated AIS, from the above mentioned processes or systems which process do you think will be the best practice to solve your current problem.