

**ACCOUNTING INFORMATION SYSTEM AND DECISION MAKING: A CASE
STUDY OF BIDCO MANUFACTURING
COMPANY IN JINJA UGANDA**

BY

PENA REGAN

1161-05014-04091

**A RESEARCH REPORT SUBMITTED TO THE COLLEGE OF ECONOMICS
AND MANAGEMENT IN PARTIAL FULLFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF BACHELORS
DEGREE IN BUSINESS ADMINISTRATION
ACCOUNTING AND FINANCE OF
KAMPALA INTERNATIONAL
UNIVERSITY**

OCOPER, 2019

DECLARATION

I, Pena Rigan hereby declare that this submission is my own work towards the award of bachelors of business administration accounting and finance of KIU and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.




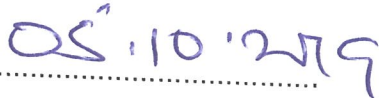


Signature Date

APPROVAL

I certify that this study is carried out and wrote under my supervision. The research has been presented for examination with my approval as a University supervisor.

Sign .....

.....

Dr. Eliab Byamukama
(Academic Supervisor)

Date

DEDICATION

I dedicate this research to my parents father Kutu James and mother Kiden Jackline for the commitment and support that they accorded to me through the academic world, may God bless you abundantly.

ACKNOWLEDGEMENTS

I recognize the different personalities who have made my research and academic journey a great success.

I recognize the fundamental work done by my supervisor Dr. Eliab Byamukama for the advice and guidance that has facilitated early completion of this research report.

To my relatives and friends I appreciate your fundamental contribution of guidance, love, passion and every commitment made to enable me pursue to these level, Only God can awards you

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
CHAPTER ONE	1
INTRODUCTION.....	1
1.0 Introduction	1
1.1 Background of the Study.....	1
1.1.1 Historical Perspective	1
1.1.2 Theoretical Perspective	2
1.1.3 Conceptual Perspective	3
1.1.4 Contextual Perspective.....	4
1.2 Statement of the Problem	5
1.3 Purpose of the study.....	5
1.4 Objectives of the study	5
1.5 Research questions.....	6
1.6 Scope of the study.....	6
1.6.1 Geographical Scope	6
1.6.2 Subject Scope.....	6
1.6.3 Time Scope	6
1.7 Significance of the study	6
1.8 Conceptual frame work	7
CHAPTER TWO.....	8
LITERATURE REVIEW	8
2.0 Introduction	8
2.1 Transaction processing systems and decision making.....	8
2.2 Management Information Systems and decision making	10
2.3 Relationship between decision Support Systems and decision making	12
2.4 Impact of accounting information system and decision making.....	14

CHAPTER THREE	17
METHODOLOGY	17
3.0 Introduction	17
3.1 Research Design	17
3.2 Study Population	17
3.2.1 Sample Size.....	18
3.2.2 Sampling Procedure	19
3.3 Sources of Data	19
3.3.1 Primary Data	19
3.3.2 Secondary Data	20
3.4 Data Collection Tool.....	20
3.4.1 Data Collection Instrument.....	20
3.5 Data Collection Procedure	20
3.6 Data Analysis Techniques.....	21
3.7 Ethical Considerations.....	21
3.8 Limitations of the study.....	22
CHAPTER FOUR	23
PRESENTATION, INTERPRETATION AND ANALYSIS OF FINDINGS	23
4.0 Introduction	23
4.1 Profile of Respondents	23
4.1.1 Gender of Respondents.....	23
4.1.2 Age categorization of respondents	24
4.1.3 Academic Qualification of Respondents	24
4.1.4 Marital status	25
4.1.5 Time service of respondents in the organization	25
4.2 Accounting information system in Bidco Uganda Limited	26
4.3 Decision Making in Bidco Uganda Limited.....	29
4.4.1Effect of transaction processing systems on decision making in Bidco manufacturing organizations.	30
4.4.2 Regression Test Results (MIS on decision making).....	31

4.4.3 Regression Test Results (DSS on decision making)	33
4.5 The Effect of accounting information system on decision making.....	34
CHAPTER FIVE	37
DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS.....	37
5.0 Introduction	37
5.1 Discussion of Findings.....	37
5.1.1 The Effect of Transaction Processing System on Decision Making	37
5.1.2 The Effect of Management Information System on Decision Making.....	38
5.1.3 The Effect of DSS on decision making	39
5.2 Conclusion	40
5.3 Recommendations	41
5.3.1 Effect of Transaction Processing System on decision making	41
5.3.2 The Effect of Management Information System on decision making.....	41
5.3.3 Effect of Decision Support System on decision making	42
5.4 Areas for Further Research.....	42
REFERENCES	43
Appendices Appendix i: Questionnaire.....	46
APPENDIX ii - PROPOSED BUDGET	50
APPENDIX iii- TIME FRAME	51

ABSTRACT

The purpose of the study is to examine the impact of accounting information system on decision making in Bidco manufacturing company in Jinja Uganda. The objectives were to determine the effect of transaction processing systems on decision making in Bidco manufacturing organizations, secondly to establish the relationship between information systems on decision making in Bidco manufacturing organizations and to determine the effect of decision support systems on decision making in Bidco manufacturing organizations. The data was collected from 40 respondents were data was collected from respondents using closed ended questionnaires that were returned. The data collected reveal that accounting information system has a high bearing on decision making with all the constructs presenting 0.000 level of significance.

The first objective was accomplished where it was found that transaction processing systems have a significant impact on decision making in organizations. This means that if they are properly utilized, there is likelihood that there is going to be some improvement in the manner in which costs are managed in these financial institutions. The second objective was fulfilled where it was determined that management information systems have a significant effect on decision making. It was found that the organizations did not use these systems as much thereby resulting in them losing out on decision making. The final objective of the study was also examined as it undertook to investigate the role played by decision support systems in ensuring that organization remains good in decision making. Just like with the other objectives, decision support systems were found to be underutilized. They were also found to relevantly affect decision making.

The study recommend that there is need to improve the state and functioning of transaction processing tools by management through providing funding to the systems in order to improve its functionality for cost management effectiveness in the organizations. It was found that the organizations did not use these systems as much thereby resulting in them losing out on decision making.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background of the study, problem statement, purpose of the study, objective of the study, research questions, scope of the study, and significance of the study and Conceptual frame work.

1.1 Background of the Study

1.1.1 Historical Perspective

For any organization of any type, be it small, medium or large, service or manufacturing, to survive in this dynamic and global world, there is need for proper management of information. Therefore, information is the backbone of any business. However, there is need for information to be well process, and the means to process information is through an integrated set of component called an information system. Thus, information system is the combination of different component to perform a specific function and basically it can be sourced from both internal and external. According to Elvisa and Erkan (2015), the most important part of management information system is the one that is concern with data processing, known as Accounting Information System (AIS). AIS involved identifying, recording, analyzing, summarizing and communication of economic information to its end user for decision making.

Decision making has been described as a purposeful choosing, from a number of alternative causes of action. AIS provide managers with the necessary information they need. Management decision is one of the most important facets that pervade all organization and constitute its progress and/or failure in actualization of pre-determined goals and objectives (Clinton, Matuszewski & Tidrick, 2011). Interestingly, both financial and non-financial information are used by Management accounting and is generally intended for the use of internal users who use the information to make decisions that help achieve the goals and objectives of the organization. Financial information used by management accountants include sale growth, profits, return on capital employed and

market shares, non-financial information include customer satisfaction level, production quality, performance of competing products and customer loyalty.

In Africa, Accounting literature argues that strategic success is considered an outcome of Accounting Information Systems (AIS) design. Several, studies have analyzed the impact of AIS in strategic management, examining the attributes of AIS under different strategic priorities (Bouwens and Abernethy, 2000). It has also been analyzing the effect on performance of the interaction between certain types of strategies and different design of AIS (e.g. different techniques and information). The appropriate design of AIS supports business strategies in ways that increasing the organizational performance (Chenhall, 2003). Increasing AIS investment will be the leverage for achieving a stronger, more flexible corporate culture to face persistent changes in the environment. Innovation is the incentive with which a virtuous circle will be put in place, leading to better firm performance and a reduction in the financial and organizational obstacles, while making it possible to access capital markets. AIS are systems used to record the financial transactions of a business or organization.

1.1.2 Theoretical Perspective

Contingency theory suggests that an accounting information system should be designed in a flexible manner so as to consider the environment and organizational structure confronting an organization. Accounting information systems also need to be adapting to the specific decisions being considered. In other words, accounting information systems need to be designed within an adaptive framework. The first paper to specifically focus on the contingency view of accounting information systems in the accounting literature was "A Contingency Framework for the Design of Accounting Information Systems,"(Gordon & Miller, 1976). This paper laid out the basic framework for considering accounting information systems from a contingency perspective. Gordon & Narayanan (1984) concluded that environmental uncertainty is a fundamental driver for designing management accounting systems among successful organizations. A key finding in this study was that, as decision makers perceive greater environmental uncertainty, they tend to seek more external, nonfinancial and ex ante information in

addition to internal, financial and ex post information. This latter finding has been confirmed by several studies that followed the Gordon and Narayanan paper. Although extensively studied in the last two decades, contingency theory has been given relatively little consideration in terms of the factors that influence the accounting information systems. Few organizations appear to have systematic processes in place for managing the evolution of their measurement systems and few researchers appear to have explored two of the main questions: What are the requirements of accounting information and decision making.

1.1.3 Conceptual Perspective

Chenhall and Morris (2005) described AIS according to the perceived usefulness of four information attributes, namely scope, timeliness, level of aggregation, and integration. Scope refers to the measures being used and to the extension of AIS in time and space. Then information could focus on future vs. historical events or external vs. internal events.

Accounting Information System (AIS) involve identifying, recording, analyzing, summarizing and communication of economic information to its end user for decision making. Accounting information system is a system which contains a group of harmonized business, components, and resources which processes, manage, and control the data for producing and carrying the relevant information for decision makers in the organization (Iskandar, 2015).

Kaurdi (1999) defined decision-making as the cognitive process resulting in the selection of a belief or a course of action among several alternative possibilities. Every decision-making process produces a final choice that may or may not prompt action. Deegan (2002) argued that decision-making is the study of identifying and choosing alternatives based on the values and preferences of the decision maker. Decision-making is one of the central activities of management and is a huge part of any process of implementation. Pandey (2000) argued that decision-making is the study of

identifying and choosing alternatives based on the values and preferences of the decision maker.

1.1.4 Contextual Perspective

Muhindo, Maureen and Zhou (2014) contend accounting information systems enhance decision making in the organizations in Uganda. According to the research findings, it shows that many small scale businesses do not apply accounting information systems in their businesses which resulted into poor performance levels as a result of lack of business information records keeping. In addition to that, issues like fluctuations in demand, or change in customer's attitude towards certain product or services cannot be easily forecasted or easily determined by management. It was further found that it's very difficult for small scale businesses to predict systems that process data into a decision oriented format which may help them in making a corrective business decisions for example the use of "what if" systems which uses lotus 1-2-3 which leads to efficient and fast completion of work and also helps in handling voluminous work.

Accounting information systems enhancing decision makers through the use information contained in financial statements for particular decisions) or towards the decision models are used to make those decisions, for which that information constitutes the input. Users of financial reports might be able to make direct use of the information contained therein to take various informed decision or they might have to employ the services of some experts to guide them in appreciating the message contained therein and how to utilize it in taking informed decisions. The adoption of financial reporting mechanisms in organizations as a means to effective decision making has become noticeable. The public entities especially those in the insurance sector in Uganda have had issues to do with the decisions to be made due to delays in providing information for decision making in financial reporting (Jones, 2013).

1.2 Statement of the Problem

Accounting information systems are intended to generate decision making. It is observed that the role of financial reporting in decision making in Ugandan public enterprises has some problems to both investors and managers of business organizations who are either not aware of the importance of interdependence relationship that exist between financial reporting and decision making, such problems include; evaluation of performance of a company in decision making. How to determine the decision making capacity of a company, besides financial reporting sometimes falls short of both legal and ethical standards, which makes the reports useful to some of the target users as they take informed decisions. States that of all the powers of government, other than its authority to declare war, none bears so incisively upon the welfare of citizens this is through effective decision making, it is however noted that poor financial reporting hampers decision making. The above listed problems constitute a focal point in this study. The problems analyzed tend to scare away both existing and potential investors (Muhindo, Maureen and Zhou , 2014). The study is intended to establish the effect of accounting information system on decision making in manufacturing organizations in Bidco Uganda Limited.

1.3 Purpose of the study

To determine the impact of accounting information system on decision making: a case study of Bidco manufacturing company in Jinja Uganda.

1.4 Objectives of the study

- i) To determine the effect of transaction processing systems on decision making in Bidco manufacturing organizations.
- ii) To establish the relationship between information systems on decision making in Bidco manufacturing organizations.
- iii) To determine the effect of decision support systems on decision making in Bidco manufacturing organizations.

1.5 Research questions

- i) What is the effect of transaction processing systems on decision making in Bidco manufacturing organizations?
- ii) What is the relationship between information systems on decision making in Bidco manufacturing organizations?
- iii) What is effect of decision support systems on decision making in Bidco manufacturing organizations?

1.6 Scope of the study

1.6.1 Geographical Scope

The study was conducted in Bidco Uganda Limited located in Jinja in Masese, the choice of the area is because it employs some degree of accounting information system for decision making in the organization.

1.6.2 Subject Scope

The study focused on effect of transaction processing systems on decision making, to establish the relationship between information systems on decision making in manufacturing organizations and to determine the effect of decision support systems on decision making.

1.6.3 Time Scope

The time scope of the study was limited to 4 months that is to say from January to March 2018. The time chosen is significant and enabled collection of viable data necessary for this study.

1.7 Significance of the study

The study is of key importance of as well as other firms in the same sector in terms of determining the benefits accruing due to the integration of accounting information systems in their operations. This enabled automotive firms in gauging the model in terms of enhancing organizational effectiveness. The study is useful to other researchers interested in the problem under investigation as the study has laid a platform on which further studies related to the subject can be undertaken.

The study would provide a theoretical basis about accounting information system successful adoption dimension to firms. It would provide practical guidance for accounting information systems implementation in small and medium business and it would also provide empirical and practical contributions for organization in effectively applying accounting information system in their operations.

Accounting information systems provide information about the financial resources, obligations, and activities of an enterprise that is intended for use primarily by external decision makers investors and creditors. This study provides useful information in making investment and credit decisions.

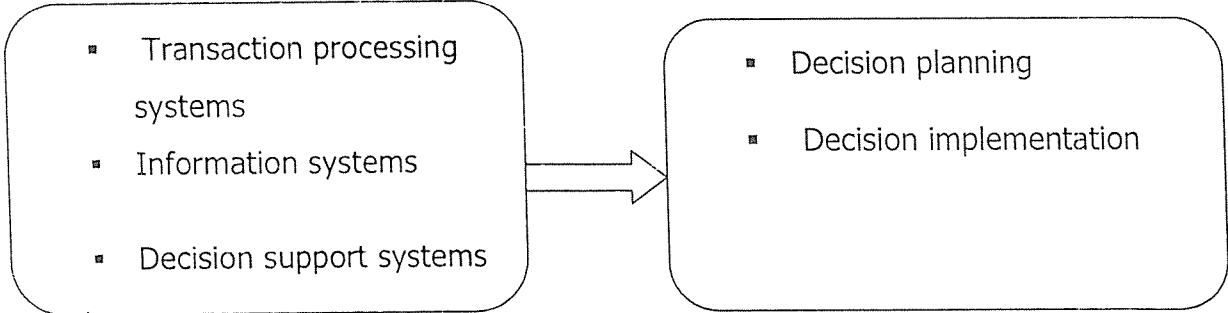
1.8 Conceptual frame work

Independent Variable
Variable

Dependent

Accounting information system

Decision making



Source: LedgerWood (2009)

The conceptual framework in this research study highlights the theoretical model of how the logical sense was achieved of the relationships among the several factors that were identified with the dependent and independent variables of the problem that was under study. The dependent and independent variables was conceptualized in the form transaction processing, information systems and decision support while decision is measured through planning and decision implementation. The results indicate that there is positive between accounting information system and decision making.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents literature in line with the objectives of the study which presents the detailed information about supplier development and product quality. The literature was retrieved from internet library, research journals and articles together with text books, magazines and newspapers. The aim was to evaluate the views of other researcher and scholars in regard to the study problem and hence being able to make the summary.

2.1 Transaction processing systems and decision making

Jerome (2011) argues that the main benefit of a transaction processing system can also be a disadvantage: the handling of several thousand operations at once is beneficial in that it reduces the cost that would have been incurred if such transactions were processed manually. The transaction processing system must simultaneously coordinate thousands, even millions, of purchases, debit consumers' bank accounts, hold each person's private banking and address information and ship out or process the order to the consumer. According to Regina (2012) this system is helpful for any business that wants to make selling goods and services easier for consumers. However, this complex system can be difficult to handle if the business is not large enough to utilize a transaction processing system.

According to Decanon (2012) one place where transaction processing has made a big splash is on the Internet. The advent of online technology has made the international distribution of goods and information quick and less costly both to the supplier and the customers. Customers have grown accustomed to placing orders online and like it because they save a lot in the process. The emergence of features like secure servers, one-click shopping, and tracking of packages over the Internet have helped make them feel more at ease with the process.

Katini (2010) conducted a study to investigate the suitability of transaction processing systems in banking organizations. In the study, he found that even though organisations use various forms of TPSs, the systems carry out similar tasks. More importantly, the study notes that the systems are instrumental in assigning costs to clients and individual transactions which would have been quite difficult if done manually. However, Santa (2012) cautions that the use of transaction processing systems is not an indication that workers are unnecessary. Instead, his argument is that the two can be used alongside each other for a more integral system of cost allocation and ultimately its management.

Spathis and Constantinides (2013) identified in their study the benefits of transaction processing systems which include: increased flexibility in information generation, as well as improved quality of reports and financial statements. Also, in 2014, they examined the impact and the changes occurred by replacing the traditional information systems with ERP systems, in terms of accounting application. One relevant finding of the study was the fact that ERP implementation produced important benefits for accounting.

Further, researchers have investigated the impact of transaction processing systems on management accounting. Doran and Mahony (2012) studied the effects of TPS systems on management accounting. Although they did not observe significant differences between ERP adopters and non-adopters regarding the use of advanced management accounting techniques, they concluded that ERP systems function as a driver behind the adoption of modern management accounting techniques. According to the researchers, implementation of the new TPS system did not change the management accounting practices. Nonetheless, the study provides evidence that TPS systems reduce the time needed for execution of routine tasks and, thus, leaves accountants additional time to conduct more useful information analysis.

Expectations for transaction processing systems to change management accounting were introduced by Kaplan and Cooper (2008), especially through the fourth of their

four-stage model for cost and performance measurement systems. When speaking about first stage systems of a company, these systems are basically inadequate for all purposes, even for financial reporting. When improvements are made, the first stage companies tend to add financial systems to meet regulatory requirements. As a result, they evolve into second stage systems where financial reporting systems dominate; these companies being driven by financial reporting. The companies with third stage systems have customized, relevant cost management, financial reporting, and performance measurement systems; however, these systems are independent.

22 Management Information Systems and decision making

Barney (2011) finds that despite the challenges inherent in systems development, however, MIS also offer businesses a number of advantages. "Today, leading companies and organizations are using information technology as a competitive tool to develop new products and services, forge new relationships with suppliers, edge out competitors, and manage costs. For example, using MIS strategically can help a company to become a market innovator. By providing a cost effective product or service to meet the economic convenience of customers, a company can raise the cost of market entry for potential competitors and thus gain a competitive advantage Kruller (2013). Another strategic use of MIS involves forging electronic linkages to customers and suppliers which also reduces the cost burden to both the company and the customer. This can help companies to lock in business and reduce switching costs. Finally, it is possible to use MIS to change the overall basis of competition in an industry. For example, in an industry characterized by price wars, a business with a new means of processing customer data may be able to create unique product features that change the basis of competition to differentiation (Barney, 2011).

Kellerman (2010) argues that the impetus to develop a new information system can grow out of end-user demands, the availability of new technology, or management strategy. But the end result is usually to help in streamlining the costs that a business incurs in the course of its operations. According to Benson (2010), a variety of tools exist for analyzing a company's information needs and designing systems to support

them. The basic process of systems development involves defining the project, creating a model of the current system, deriving a model for the new system, measuring the costs and benefits of all alternatives, selecting the best option, designing the new system, completing the specific programming functions, installing and testing the new system, and completing a post-implementation audit. When this is done, the management of costs in a commercial entity becomes facilitated (Kellerman, 2010 and Benson, 2010).

Malz (2011) argues that information systems designers, whether internal to the company or part of an outside firm, are generally responsible for assuring the technical quality and cost effectiveness of the new system. They also oversee the process of system design and implementation, assess the impact of the new system on the organization, and develop ways to protect the system from abuse after it is installed. But it is the responsibility of small business owners and managers to plan what systems to implement and to ensure that the ultimate systems serve the purposes of minimizing costs of businesses.

Meredith and Mantel (2006) found that utilizing Information technology (IT) has major impact in solving all difficulties, which may appear during project lifecycle phases, by presenting a crucial computer application, project management software such as, which may help in decreasing the time and cost that are required to use precise clarifications for project planning, scheduling, monitoring, and controlling. Thus, retailers provided extra support for the key phases of the project lifecycle such as project risk management and created knowledge management to strength not only individual but the monitoring and controlling the whole organization. Essentially, the task of Project Management Information System have been described as "subservient to the attainment of project goals and the implementation of project strategies", it supply project managers by "essential information on the cost time performance parameters of a project and on the interrelationship of these parameters.

The proposed MIS model is mainly constructed based on the review of literatures that is related and a number of qualitative empirical materials, which were based on the model of DeLone and McLean as well as Sabherwal (2006), and Almutairi and Subramanian (2005). This model will be empirically tested to measure the PMIS factors that influencing the Management information system through a survey which was conducted and analyzed during the first quarter of year 2011, effective and efficient project management decision making process is influenced by set of independent variables: Information quality, analytical quality, system quality, technical quality, communication quality, decision maker's quality and problem characteristics. The independent variables are believed to be the variables that have association with the dependent variable (Effective and efficient Project Management Decision Making) in a positive manner.

2.3 Relationship between decision Support Systems and decision making

Ash-Edmunds (2015) relates that other methods of cost control do not consider at a macro level the influence of many important attributes such as waste, project management practices, change orders, and error/rework on the line items and thus on the total cost. That is, they make efforts identify and control the symptoms rather than making efforts to identify and control the cause. To help management in this aspect a prototype Decision Support Systems (DSS) have been developed. Such computerized Decision Support Systems assist management, before and after the project has started, in identifying attributes which might cause potential project cost escalation and in formulating a project cost control strategy. The attributes identified on the cost control strategy, if controlled, would minimize the expected loss (i.e., project cost escalation). To evaluate the probable cost escalation in the new project and to formulate a cost control strategy, the system allows the constructors to utilize their experience and past project performance data.

Hamilton (2010) writes that decision support systems (DSS) are commonly understood to be computerized management information systems designed to help business owners, executives, and managers resolve complicated business problems and/or

questions. Good decision support systems can help business people perform a wide variety of functions, including cash flow analysis, concept ranking, multistage forecasting, product performance improvement, and resource allocation analysis. All these functions are vital to the management of organizational costs. In fact, as Chen et al., (2013) explain, they are the core elements of contemporary cost problems in organizations today. Previously regarded as primarily a tool for big companies, DSS has in recent years come to be recognized as a potentially valuable tool for managing costs in small business enterprises as well.

In previous research it was shown Bragg (2010) that addition of Geographic Information Systems (GIS) technology to a business decision making environment improves the performance of the decision-maker. Therefore, we argue that the hotel price management system should at least provide support to input spatial data, to represent complex spatial relations, to analyze spatial data, and to output spatial data in the forms of maps.

Zeleny (2009) argued that the knowledge-based DSS include a knowledge management component which stores and manages a new class of emerging AI tools such as machine learning and case-based reasoning and learning. These tools can obtain knowledge from prior data, decisions and examples (cases), and contribute to the creation of DSS to support repetitive, complex real-time decision making. Machine learning refers to computational methods/tools of a computer system to learn from experience (past solutions), data and observations, and consequently alter its behaviour, triggered by a modification to the stored knowledge. Artificial neural networks and genetic algorithms are the most notable approaches to machine learning. The role of knowledge-based DSS should be to allow experts to broaden and expand their expertise, not to narrow it down. Zeleny suggests the important future direction of knowledge-based DSS development in this way.

2.4 Impact of accounting information system and decision making

Soudani (2012) examined the impact of AIS on the organizational performance with the application of regression and correlation. The correlation matrix highlighted the highest correlation (0.662) existed between AIS and financial performance and the lowest correlation (0.252) was existed between financial performance and performance management. AIS was found an important factor in building organizational performance through collection, storage and processing of financial and accounting data to be evaluated by its impacts on improvement of decision-making process, quality of accounting information, performance evaluation, internal controls and facilitating company's transactions.

Muhrtala & Ogundeji (2013) investigated the perception of Nigerian accountants and IT executives on the existence of security threats on CAIS's in Nigeria. The authors recommended that organizations should implement substantial security measures to protect IT infrastructure through the use of physical, logical, environmental and administrative (policies, guidelines, standards, and procedures) controls. Besides, management should monitor physical controls to safeguard CAIS's and to guide access to facilities, computers, and telecommunications equipment that supports information assets processing. The research further recommended that biometric devices such as retina, scanners, hand geometry, fingerprint scanners, electronic card readers should be used extensively.

Neogy (2014) evaluated the efficiency of AIS in selected mobile telecommunication companies in Bangladesh. It was found that the AIS of the selected mobile telecommunication companies computerized and all transactions are processed by the computer. The use of computerized AIS gives opportunities for the companies in recording various accounting transactions, processing these transactions and preparing the financial statements like income statement, balance sheet, owner's equity statement, cash flow statement. Besides, AIS also provide information which supports

all levels of management such as operational level, middle level and top level management.

Patel (2015) in the study titled, "Effects of Accounting Information System (AIS) on Organizational Profitability" investigated the impact of AIS on the profitability of an organization. It was found that there was a positive significant relationship between the accounting information systems used by the enterprises and its profitability. Besides, the study concluded that the effectiveness of accounting information systems helps in better decision making by managers, more effective internal control systems, improvement of the quality of financial reports, enhancement of performance measures, facilitating financial transaction processes and helps in expansion of profitability of the organization.

Nwinee et al. (2016) examined the impact of AIS on management efficiency and cost efficiency of SMEs in Nigeria. Data was collected through questionnaire set on five point Likert scale and analyzed with the application of Kruskal Wallis H test. Management efficiency and cost control was used as proxy variable to measure organizational effectiveness. It was found that AIS enhances management efficiency and cost control by supporting rational operational decision. Besides, the study explored that accounting information system has significant positive impact on the effectiveness of small and medium scale enterprises in Nigeria.

Beg (2018) in the research paper entitled, "Impact Of Accounting Information System On The Financial Performance Of Selected FMCG Companies" investigated the role of accounting information system on the financial performance of ten major Indian FMCG companies. Nestle, Amul, Hindustan Unilever Limited (HUL), Asian Paints, Godrej, Britannia, Dabour, Wipro, PepsiCo, and Coca Cola were the companies selected by the researcher for analysis. A self administered questionnaire designed on five point likert scale was used to collect data. Judgmental sampling was applied and the sample size was 283 employees. AIS was used as independent variable whereas financial

performance was used as dependent variable. The findings after application of simple linear regression highlighted that there is a significant impact of accounting information system on the financial performance in the companies under study. The maximum impact of AIS was revealed in HUL, PepsiCo, Coca Cola and Nestle because the value of R square was more than 90 percent. However, Dabour and Godrej were the companies wherein least impact of AIS was recorded.

Green Wood and Hinings (2012) opined that there is evidence that reveal the influence of accounting information in decision making process. It emphasizes the importance of a holistic context and which, led to the integration of other institutional influence and multiple logics. The essence of using AIS is to enable managers make wise decision. AIS is also used to setup system of internal control to increase efficiency and prevent fraud in companies. AIS aid in profit making, budgeting and cost control. In a company, it is the duty of the management accountant to see that his company keeps good records and prepare proper financial regulations. Management accountants also need to keep up with the latest development in the use of computers and in computer system design. Accountants provide many special reports for management's decision making. This function requires the gathering of both historical and projected data.

According to Wexiodisk, (2006), accounting tools are information provider that guides decision. They further said, accounting is a measurement and communication system to provide economic and social information about an identifiable entity to permit users to make informed judgments and decisions leading to an optimum allocation of resources and the accomplishment of the organizations objectives. Hafij, Jamil and syeda (2014) affirmed that there is a significant relationship between AIS and strategic decision making. Elvisa and Erkan (2015) concluded that AIS system play a very significant role in the process of decision making, especially today when technology is constantly changing. When the information provided by AIS serves widely the requirements of the system users then AIS system can be said to be effective. However, the question of its efficiency is a different topic entirely. Effective information system ought to

systematically provide information that has prospective effects on decision making process.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter aims to explicate the methods applied in the data collection. These methods included the following; research design, population of the study, sample size, sampling techniques, sources of data, data collection methods, pre-test of research tool, data analysis, limitations of the study and ethical considerations.

3.1 Research Design

Study design is a plan, structure and strategy of investigation conceived so as to obtain answers to the research questions (Amin, 2004, Mugenda 1999). Descriptive research design is a valid method for researching specific subjects and as a precursor to more quantitative studies (Kombo and Tromp, 2007). Whilst there are some valid concerns about the statistical validity, as long as the limitations are understood by the researcher, this type of study is an invaluable scientific tool (Attuja, 2001). The study is cross-sectional in that, the data was collected from many categories of respondents and at different times. The research is descriptive in nature where information was presented describing the situational on accounting information systems and decision making. The data was presented quantitative through means and standard deviation and qualitative data was presented in form of expressions given in means and standard deviations.

3.2 Study Population

Population is the complete collection of all the elements that are of interest in a particular investigation (Amin, 2004). The researcher target a population of 45 people, this perspective will include respondents selected from the technical staff (25) and

administrative staff (20) who were requested to gather information from the respondents. Therefore a population of 45 was the respondents who gave information. The information is courtesy of Human resource manual for Bidco Uganda the employee category mentioned above for 2018 November.

3.2.1 Sample Size

The sample in this study was restricted to the information required and for the purpose of this study; a sample size was determined using Slovene's Formula to come up with appropriate sample size to be used in the study.

Sloven (1961) formula states that, given a population, the minimum Sample size is given by: The sample size was calculated mathematically using the formula below;

$$n = \frac{N}{1 + Ne^2}$$

Where; n = the sample size

N = total population of respondents.

α = the level of significance, that is 0.05

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{45}{1 + 45 (0.05) (0.05)}$$

$$n = \frac{45}{1 + 45 * 0.0025}$$

$$n = \frac{45}{1.112}$$

$$n = 40.43$$

Therefore n= 40

A sample size of 40 respondents was selected to participate in the study.

3.2.2 Sampling Procedure

In selecting samples to be included in the study, both probability and non-probability sampling techniques were used. Particularly the purposive sampling technique which is a non-probability sampling technique was used to select the administrators. This is because it was believed that all the officials are not of procurement positions so those sought to have information sought for data collection. Simple random sampling was used in the choice of technical staff to provide chance to all the respondents without bias.

Table showing sample size and sampling techniques

No	Category	Population	Sample size	Sampling technique
2	Technical staff	25	22	Simple random
3	Administrators	20	18	Purposive Sampling
	Total	45	40	

Source: *Primary Data (2017) Sampling Using Slovene (1961) Sample Size determination Method*

3.3 Sources of Data

Both primary and secondary sources of data was obtained for the study.

3.3.1 Primary Data

This is first hand information chosen: a fresh from the field. The primary data obtained directly from respondents through the administration of questionnaires and structured interviews. The primary data provided a reliable and accurate first hand information

relevant to this study about logistics control systems and service efficiency. The questionnaires were used to collect the data from the appropriate respondents.

3.3.2 Secondary Data

According to Attuja (2001) secondary information is obtained from the library, internet, journal articles, news papers and research reports. The idea of secondary data was used to gather necessary information to guide the conduct of the research project in order to confirm or reject the primary data.

3.4 Data Collection Tool

3.4.1 Data Collection Instrument

Questionnaires were the main data collection instrument used for the study. The questionnaires were appropriate for the collection of data from all the respondents. Questionnaires facilitated the collection of data that ensured the best matching of concepts with reality. The closed ended questionnaires based on the Likert scale measure of 1:5 provided the same responses from a given set of respondents and helped reduce inconvenience caused by unfavorable interview times and busy schedules. According to Saunders, (2007), questionnaire is used for explanatory research which enabled the study to examine and explain relationships between variables, in particular cause-and-effect relationships.

3.5 Data Collection Procedure

The data collection procedures were undertake three phases that included pre data gathering, actual data gathering and post data gathering

Pre data gathering

- i. An introductory letter was secured from the University to conduct the study after which permission from the organizations were sought to distribute questionnaire to their respondents.
- ii. The researcher oriented and brief his research assistants on the sampling and data gathering procedures.
- iii. The questionnaires for actual distribution were prepared and code accordingly.

- iv. The non-standardized instrument was tested for validity and reliability.

Actual data gathering

- The respondents were requested to answer the questionnaires as objectively as possible and not to leave any option unanswered.

Post Data Gathering

- The data was collected, organized and entered into the Excel Microsoft package for data processing and analysis in order to prepare the final report for submission to the college of economics and management

3.6 Data Analysis Techniques

Quantitative data and information collected using interview guide and responses from numerous respondents were coded, (closed ended questionnaires were coded appropriately), and entered and analyzed statistically using specially designed computer based packages for data analysis known as Statistical Package for Social Scientists (SPSS). The data was presented in form of descriptive analysis for assessing the level of the accounting information system and decision making in organizations while regression analysis was used in analyzing the effect of accounting information system and decision making in organizations.

3.7 Ethical Considerations

In every research study, it is very important to take seriously the ethical considerations which will include the following;

The purpose of the research explained to the respondents. For purposes of proper and adequate data collection, there is need to explain the whole purpose of the research to the respondents so that they are well informed about the purpose of the study.

Confidentiality during and after data collection was maintained at all times, this ensured professionalism in the research and also treat the views of the respondents with confidentiality.

Report what is actually found and not manufacture and publish dream up data and also giving due recognition to any one whose work may have been used in this research and not try to pass it as the researchers original work

3.8 Limitations of the study

Long distance from the institution to the area of the study is one of the anticipated limitations the researcher faced. This would hinder free movement during data collection. However, the researcher tried as much as possible to move to the area to collect the data in phases to ease on transport charges.

Non-response to certain questions and providing of false information is another limitation to the study. This is due to the fear by some respondents that the researcher exposed confidentiality to public. However, the researcher used logical questions so that the respondents could be able to release such information needed by the researcher.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF FINDINGS

4.0 Introduction

This chapter present data and interpreted collected using the questionnaire designed to reflect the objectives were to determine the impact of accounting information system on decision making: a case study of Bidco manufacturing company in Jinja Uganda. The study focused on 40 respondents who were selected from the selected respondents. The Presentation and interpretation of data in this chapter has been done with the aid of quantitative and qualitative methods. Quantitative methods involved the use of tables for computations of sum and averages, percentages and personal analysis and interpretation presented in essay form.

4.1 Profile of Respondents

4.1.1 Gender of Respondents

Table 4.1: Gender Categorization of Respondents

Respondents	Frequency	Percentage
Male	28	70.0
Female	12	30.0
Total	40	100

Source: Field data, 2019

Results from table 4.1 provide the findings on the gender of the respondents. The findings indicate that the majority of respondents are male that is 28 respondents representing 70% of the total respondents and 12 respondents are female representing 30% of the respondents. This implies that the gender sensitivity was put in consideration so as to attain data from both male and female.

4.1.2 Age categorization of respondents

Table 4.2: Showing respondents categorization

Age category	Frequency	Percentage
20-29 years	9	22.5
30-39 Years	13	32.5
40-49 years	12	30
50+	6	15
Total	40	100

Source: Field data, 2019

Results in table 2 present findings on the age of respondents, 30-39years was the majority age group with 32.5% of respondents followed by 40 –49 with 30%, next were 22.5years with 22.5% and finally 50+ with 15% of the total respondents, From the above findings, it can be concluded that the majority of the respondents are mature people and therefore they have an active memory.

4.1.3 Academic Qualification of Respondents

Table 4.3: Academic qualifications of the respondents

Academic qualifications	Frequency	Percentage
Certificate	8	20
Diploma	9	22.5
Degree	14	35
Masters	9	22.5
Total	40	100

Source: Field data, 2019

Results in table 4.3 present that the majority of the respondents were degree holders representing 35% Diploma and masters respondents were represented by 22.5% respectively and finally followed by certificate with 20%. This implies that the respondents were well educated and could interpret the given question and thus the data attained can be relied upon for decision making.

4.1.4 Marital status

Table 4.4: Showing the marital status of Respondents

Respondents	Frequency	Percentage
Married	20	50
Single	15	37.5
Separated/divorced	5	12.5
Total	40	100

Source: Field data, 2019

Results from table 4.4 provide the findings on the marital status of the respondents. The findings revealed that the most of respondents were 40 representing 50% of the total respondents who were married, single respondents were 30 representing 37.5% of the total respondents and finally followed by respondents who had separated/divorced 10(12.5%) implying that most of the employees were married, a sign of responsibility amongst the employees in the organization.

4.1.5 Time service of respondents in the organization

Table 4.5: Respondents' time of service

Time service	Frequency	Percent
1-4 years	5	12.5
5-9 years	12	30.0
10-14 years	13	32.5
15 and above	10	25.0
Total	40	100.0

Source: Field data, 2019

The results in table 4.5, above show that 32.5% of the respondents had a working experience of 10-14 years. In addition, 30% had 5-9 years working experience, 15 and above years had 25% and finally followed by respondents with a working experience of

1 -4 years represented by 12.5%. This implies that the respondents had worked in the organization for a quite period of time and therefore had the necessary data needed by the researcher.

4.2 Accounting information system in Bidco Uganda Limited

The independent variable in this study was accounting information system and was broken into three parts namely; transaction processing system (with 5 questions), management information system 5); and decision support system (with 5 questions). Each of these questions was based on the five point Likert scale where by respondents were asked to rate the by indicating the extent to which they agree or disagree with each question and their responses were analyzed using SPSS and summarized using means as indicated in table 4.6;

Table 4.6: Accounting Information system in Bidco Uganda Limited

Descriptive Statistics on accounting information system	Mean	Interpretation
Transaction Processing system		
Transaction processing system involve both real time and batch transaction in putting	2.51	Poor
There is good integration between real time and batch TPSs	2.67	Fairly good
Information processed on TPSs serves as input to other information systems	2.43	Poor
All errors are detected, reported and corrected in an automatic manner	2.99	Fairly good
The TPSs allow multiple users to work on the systems concurrently	3.07	Fairly good
Average Mean of Transaction Processing system	2.734	Fairly good
Management Information system		
MISs are well integrated with other information systems in your organization	2.83	Fairly good

MISs give timely reports on the progress of business aspects of your organization	1.95	Poor
The information given by MISs is quite reliable in empowering management	3.30	Fairly good
Reports offered by your MISs are concise to facilitate proper understanding	3.13	Fairly good
The use of MISs is effective relative to other options available	3.01	Fairly good
Average Mean on Management Information System	2.84	Fairly good
Decision Support system		
DSSs are well integrated with other information systems used in your organization	3.07	Fairly good
Your DSSs tap into reliable databases both internal and external	3.54	Moderately high
Your DSSs are majorly task-oriented	3.19	Fairly good
Your DSSs only serve as ancillary to most of the management decision processes	2.86	Fairly good
DSSs are used to enhance management decision making	2.50	Poor
Average Mean	3.032	Fairly Good
Overall Average mean	2.868	Fairly Good

Source Field data, 2019

4.22- 5.00	Strongly agree	Very Good
3.42 - 4.22	Agree	Good
2.62 – 3.41	Not Sure	Fair
1.81 - 2.61	Disagree	Poor
1.00 - 1.80	Strongly disagree	Very Poor

The study results on the accounting information system, the findings reveal that overall accounting is fairly good at the mean of 2.868, interpreted as fairly good. The results

are based on overall Transaction processing system, management information system and decision support systems.

Transaction processing was on overall fairly good at 2.734 based on the responses of Transaction processing system involve both real time and batch transaction in putting at 2.51, Information processed on TPSs serves as input to other information systems at 2.4 mean all interpreted as poor while there is good integration between real time and batch TPS at 2.67, All errors are detected, reported and corrected in an automatic manner at 2.99 and The TPSs allow multiple users to work on the systems concurrently had 3.07 mean interpreted as fairly good.

Management information system was overall at the mean of 2.84, interpreted as fairly good. These is based on the issues of MISs are well integrated with other information systems in your organization had 2.83 mean. The information given by MISs is quite reliable in empowering management had 3.30, Reports offered by your MISs are concise to facilitate proper understanding had 3.13 and the use of MISs is effective relative to other options available had 3.01 mean interpreted as fairly good while concerning MISs give timely reports on the progress of business aspects of your organization had 1.95 interpreted as poor.

The decision support system was entirely fairly good at 3.032 interpreted as fairly good based on the DSSs are well integrated with other information systems used in your organization had 3.07, Your DSSs tap into reliable databases both internal and external had 3.54, Your DSSs are majorly task-oriented had 3.19, Your DSSs only serve as ancillary to most of the management decision processes had 2.86 and finally DSSs are used to enhance management decision making had 2.50 interpreted as Poor.

4.3 Decision Making in Bidco Uganda Limited

The dependent variable in this study was decision making in Bidco Uganda Limited for which respondents were required to ascertain the extent to which they agree or disagree with the items or statements by indicating the number which best describes their perceptions. This variable was measured using questions with response rate ranging between 5=strongly agree, 4=agree, 3=Not sure 2=Disagree and 1=strongly disagree. The responses were analyzed and described using means as summarized below in table 47;

Table 4.7: Shows Level of decision making in Bidco Uganda Limited

Descriptive Statistics		
	Mean	Interpretation
We have effective decision making	2.97	Fairly good
Our organization conduct through analysis for decision making	3.08	Fairly good
We have competent forecasting for decision and planning	3.14	Fairly good
Our decision making is influenced by politics and politicians	2.66	Fairly good
We have laws governing our decision making	2.97	Fairly good
Planning is done before decisions are made	2.45	Poor
Decisions made enable expenditure of little revenues	2.69	Fairly good
All employees contribute to the decision making	3.31	Fairly good
Average Mean	2.90	Fairly Good

Source Field data, 2019

The study results on the level of decision making in Bidco Uganda Limited the study reveal that overall decision making in Bidco Uganda Limited was fairly good. The results are based on the individual responses whose arguments provide a response on the same.

Concerning the responses on We have effective decision making had the mean of 2.97, fairly good while the organization conduct through analysis for decision making had 3.08, We have competent forecasting for decision and planning had 3.14 Our decision making is influenced by politics and politicians had 2.66 interpreted as fairly good.

Concerning having laws governing our decision making had the mean of 2.97 interpreted as fairly good. Planning is done before decisions are made had mean of 2.45 as poor. Decisions made enable expenditure of little revenues had 2.69 and finally all employees contribute to the decision making had 3.31 interpreted as fairly good.

4.4.1 Effect of transaction processing systems on decision making in Bidco manufacturing organizations.

In this objective, the main intention was to find out the causal effect that TPSs have on decision making. A regression test was performed and the results are presented in Table 4.8 below.

Table 4.8: Regression Test Results (TPS on decision)
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505 ^a	.255	.248	.16555

a. Predictors: (Constant), Transaction Processing Systems

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.938	1	.938	34.223	.000 ^b
	Residual	2.741	100	.027		
	Total	3.678	101			

a. Dependent Variable: decision making

b. Predictors: (Constant), Transaction Processing Systems

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.877	.066		13.210	.000
	Transaction Processing Systems	.287	.049	.505	5.850	.000

a. Dependent Variable: Decision Making

Source Field data, 2019

The R-Squared coefficient was computed to be at 0.255. This figure indicates that transaction processing systems alone have a 25.5% effect on decision making of Bidco Uganda Limited. This also means that the rest of the 74.5% is influenced by other factors other than TPS such as MIS and DSS. The R-Squared coefficient denotes a considerably low amount of influence that TPSs have on decision making.

Analysis of variance was also performed where findings suggested that there was some significance in the effect. The p value for the test was computed within an acceptable range since it was at 0.000. This is enough evidence to suggest that transaction processing systems does have a significant effect on decision making in organizations.

The t statistics for the variable (TPS) was also within the acceptable range to support their relevance in the model, TPS as the independent variable had a calculated t value of 5.850. This implies that that it has a high and significant predictive potential on decision making. The p value for the beta of this variable also suggests the same as it was found to be below 0.05. therefore the null hypothesis is rejected and the researcher argues that there was a significant effect of transaction processing on decision making in Bidco Uganda Limited.

4.4.2 Regression Test Results (MIS on decision making)

In this objective, the main intention was to find out the causal effect that MISs have on decision making. A regression test was performed and the results are presented in Table 4.9 below.

Table 4.9: Regression Test Results (MIS on decision making)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.485 ^a	.236	.228	.16769

a. Predictors: (Constant), Management Information Systems

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.866	1	.866	30.814	.000 ^b
	Residual	2.812	100	.028		
	Total	3.678	101			

a. Dependent Variable: Decision making

b. Predictors: (Constant), Management Information Systems

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.885	.068		12.966	.000
	Management Information Systems	.281	.051	.485	5.551	.000

a. Dependent Variable: Decision Making

Source: Field Data, 2019

Findings suggest that management information systems had a strong significant effect on decision making. The R-Squared coefficient was computed to be at 0.236 which translates to a 23.6% influence on decision. This means that MIS alone has a considerably low influence on the dependent variable.

ANOVA test was also performed where the p value was measured to be at 0.000 which is entirely within the acceptable confidence levels. The F-Value was measured at 30.814 which is high. The implication is that the effect that MIS has on decision making is significant. Regarding the beta coefficients, the variable of MIS seems to be significant in the model as it had a value of 5.551 which is less than the tabulated t value of 12.966.

The researcher rejects the null hypothesis and concludes that there was a significant relationship between management information system and decision making in Bidco Uganda Limited.

4.4.3 Regression Test Results (DSS on decision making)

Regarding the effect that decision support systems have on decision making, findings suggested a positive effect as tabulated in the table below. The summarized regression results are clearly indicative of the fact that decision support systems help in improving the odds of decision making

Table 4.10: Regression Test Results (DSS on decision making)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.541 ^a	.293	.286	.16125

a. Predictors: (Constant), Decision Support Systems

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.078	1	1.078	41.461	.000 ^b
	Residual	2.600	100	.026		
	Total	3.678	101			

a. Dependent Variable: Decision Making

b. Predictors: (Constant), Decision Support Systems

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.808	.071		11.408	.000

Decision Support Systems	.332	.052	.541	6.439	.000
--------------------------	------	------	------	-------	------

a. Dependent Variable: Decision Making

Source: Field Data, 2019

The study computed the R Squared Coefficient to stand at 0.293. This figure means that decision support systems had 29.3% effect on the success of decision making in Bidco Uganda Limited. Because this is the coefficient of determination, it implies that decision support systems have a low, positive, but significant effect on the decision making on the organizations.

Looking at the ANOVA test results, findings suggest that the significance level was below the threshold of 0.05. The calculated F-Statistic of 41.461 is high. This fact provides evidence to the fact that decision support systems have a significant effect on decision making in the organization.

Regarding the coefficients, the decision support systems was above the t Statistic was 6.439. Besides both the independent and dependent variables have a significance value of 0.00. This means the variable is very important to the model and cannot be removed. The p value also confirms this fact as it was below 0.05.

The researcher therefore rejects the null hypothesis and concludes that there was a significant relationship between decision support systems and decision making of Bidco Uganda Limited.

4.5 The Effect of accounting information system on decision making

The general objective of the study was to establish the effect that accounting information system has on decision making. After determining the effect of individual constructs within construct of accounting information system, it is important to also determining the collective effect that the variables had on effectiveness of the organization.

Table 4. 1: Regression Test Results (Accounting information system on decision making)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.852 ^a	.725	.717	.10152

a. Predictors: (Constant), Decision Support Systems, Transaction Processing Systems, Management Information Systems

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.668	3	.889	86.299	.000 ^b
	Residual	1.010	98	.010		
	Total	3.678	101			

a. Dependent Variable: Decision making

b. Predictors: (Constant), Decision Support Systems, Transaction Processing Systems, Management Information Systems.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.153	.069		2.216	.029
	Transaction Processing Systems	.276	.030	.487	9.181	.000
	Management Information Systems	.262	.031	.452	8.508	.000
	Decision Support Systems	.295	.033	.481	9.045	.000

a. Dependent Variable: Decision making

Source: Field Data, 2019

The effect for all the three independent variables on decision making was computed to be at an R Squared coefficient of 0.725. It meant that the variables accounted for 72.5% of the variation in decision making could be explained by the three variables belonging to accounting information system. This denotes a high rate of influence that the variables have on decision making.

The ANOVA section also offers collaborating evidence to support the fact that there is a significant amount of influence. The p value for the test was established at 0.000 which is below 0.05. The F value for the test was computed to be at 86.299 which is greater than the critical F Statistic of 2.697. The implication was that all the variables combined had a significant influence on decision making

Finally, the individual constructs of accounting information system had to be checked for their relevance in the model. Findings suggested that the p values for the betas of all the three were significant as they were all computed at 0.000. The t statistics for all of the three variables were computed and were below the threshold with respect to the degrees of freedom

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.0 Introduction

This final section of the report deals with the discussion of the findings presented in the preceding chapter. The discussion is made with reference to other similar works done in previous studies. The section then draws conclusions from these discussions after which it offers its recommendations. Finally, it suggests areas that are potential grounds for research that could not be completed in the body of this report.

5.1 Discussion of Findings

This section was further organized into three subsections with respect to the research objectives that guided the study.

5.1.1 The Effect of Transaction Processing System on Decision Making

The study investigated the effect that TPS on decision making. Its findings indicated that there was a significant effect impacted on how the transaction processing affect decision making. Even though the effect may have been rather weak, its significance was undisputable. These findings are backed by previous research studies that undertook to establish a similar purpose as elaborated below.

A study by Jerome (2011) found that the essence of a transaction program is that it manages data that must be left in a consistent state and thus control costs. If an electronic payment is made, the amount must be either both withdrawn from one account and added to the other, or none at all. In case of a failure preventing transaction completion, the partially executed transaction must be rolled back by the TPS. While this type of integrity must be provided also for batch transaction processing, it is particularly important for online processing for many industries such as an airline seat reservation system is accessed by multiple operators, after an empty seat inquiry, the seat reservation data must be locked until the reservation is made, otherwise another user may get the impression a seat is still free while it is actually being booked at the time. The costs that are saved for adopting this system are high. Organizations

seem not to have been using these systems and for this reason they happened to also have poor cost management.

Katini (2010) also argues that without proper transaction monitoring, there is likely to be mismanagement of organizational resources. The systems monitor functions including deadlock detection and resolution (deadlocks may be inevitable in certain cases of cross-dependence on data), and transaction logging (in journals) for forward recovery in case of massive failures. Transaction processing and database, the drudgery of the clerical work is transferred to the computerized system, relieving the human mind for better work. Even the workforce that is required because everything is automated. He observed that lot of manpower is engaged in this activity in the organization. Seventy (70) percent of the time is spent in recording, searching, processing and communicating. This TPS has a direct impact on this overhead. It creates information –based working culture in the organization.

5.1.2 The Effect of Management Information System on Decision Making

The study also examined the effect of MIS on the decision making. In this case, the study found out that MIS is a significant determinant of decision making. However, because the organisations did not utilize the potential of these systems, consequently the organisations experienced very poor episodes of managing costs in their institutions. Most previous studies that dealt in this context collaborate these findings as outlined hereunder.

Kellerman (2010) found that the impact of MIS on the functions is in its management with a good MIS supports the management of marketing, finance, production and personnel becomes more efficient. The tracking and monitoring of the functional targets becomes easy and less costly. The functional managers are informed about the progress, achievements and shortfalls in the activity and the targets.

In another study by Malz (2011), the author indicates that MIS makes the manager be on alert by providing certain information indicating and probable trends in the various cost aspects of business. This helps in forecasting and long-term perspective planning.

The manager's attention is bought to a situation which is expected in nature, inducing him to take an action or a decision in the matter. Disciplined information reporting system creates structure database and a knowledge base for all the people in the organization. The information is available in such a form that it can be used straight away by blending and analysis, saving the manager's valuable time. It seems that it would have been much better cost-wise for the organisations in Bosaso had they adopted these systems to acceptable levels.

Barney (2011) is also of the idea that a well-designed system with a focus on the manager makes an impact on the managerial and cost efficiency. The fund of information motivates an enlightened manager to use a variety of tools of the management. It helps him to resort to such exercises as experimentation and modeling. The use of computers enables him to use the tools and techniques which are impossible to use manually. The ready-made packages make this task simple. The impact is on the managerial ability to perform. It improves decision-making ability considerably high.

5.1.3 The Effect of DSS on decision making

The last objective regarded the effect that decision support systems have on decision making. A significant effect was also found in this case which underscored the importance of adopting such systems. Just as with the other objectives, other researchers have also looked into this and have presented similar results as those made in this study.

Hamilton (2010) documented DSS cost saving from labor savings in making decisions and from lower infrastructure or technology costs. For all categories of decision support systems, research has demonstrated and substantiated reduced decision cycle time, increased employee productivity and more timely information for decision making. The time savings that have been documented from using computerized decision support are often substantial. Researchers, however, have not always demonstrated that decision quality remained the same or actually improved.

Chen et al., (2013) suggests the advantage that has been widely discussed and examined which is improved decision making effectiveness and better decisions when it comes to cost allocation and control. Cost decision quality and decision making effectiveness are however hard to document and measure. Most researches have examined soft measures like perceived decision quality rather than objective measures. Advocates of building data warehouses identify the possibility of more and better analysis that can improve decision making.

5.2 Conclusion

In conclusion, the study was successfully carried out and all the objectives fulfilled.

- The first objective was accomplished where it was found that transaction processing systems have a significant impact on decision making in organizations. This means that if they are properly utilized, there is likelihood that there is going to be some improvement in the manner in which costs are managed in these financial institutions.
- The second objective was fulfilled where it was determined that management information systems have a significant effect on decision making. It was found that the organisation did not use these systems as much thereby resulting in them losing out on decision making.
- The final objective of the study was also examined as it undertook to investigate the role played by decision support systems in ensuring that organization remains good in decision making. Just like with the other objectives, decision support systems were found to be underutilized. They were also found to relevantly affect decision making.
- The purpose of the study sought to establish the overall effect that accounting information systems had on decision making. It was found that the general effect

was much higher than the individual effect that each of the variables had on decision making.

5.3 Recommendations

The following are the researcher's suggestions regarding what should be done to positively influence on decision making.

5.1.1 Effect of Transaction Processing System on decision making

Transaction processing systems have a significant impact on decision making, therefore to improve the state of affairs concerning decision making there is need to improve transaction processing systems operation.

There is need to improve the state and functioning of transaction processing tools by management through providing funding to the systems in order to improve its functionality for cost management effectiveness in the organisations.

To improve the functionality of the transaction processing system there is need for department of transaction processing to coordinate both an automated systems of transactions with the manual ones in order to realize the values for decision making.

5.1.2 The Effect of Management Information System on decision making

Management information systems have a significant effect on the cost management of commercial organizations studied. Though the level of management information systems were found very low, there is need to improve the state of information management, management of the organizations need to adopt more computerization to enable the attainment of a strong communication avenues.

It was found that the organizations did not use these systems as much thereby resulting in them losing out on cost management, Human resource department need to put more emphasis on sensitization and education of employees to attain more knowledge and use the systems.

The management of the organizations needs to provide an ease of communication of the employees through providing additional communication mechanisms through phones that can enhance mobile use of the information systems.

5.1.3 Effect of Decision Support System on decision making

Decision support systems ensure that the organizations remain cost effective. Just like with the other objectives, decision support systems were found to be underutilized. Decision support systems need to be enhanced through providing educating platforms by Human resource management and ICT to enhance the value for the organizations improvements.

The decision support systems were also found to relevantly affect cost management in the organizations in question. it is vital that decision making be done by the management through the decision support tools for the organizations

Regular updates on systems by the ICT department. Some systems were found to be obsolete and need urgent updating. The information technology department should take it upon themselves to ensure that their systems receive regular updates from the sources of the software to avoid malfunctioning.

5.4 Areas for Further Research

1. Automated systems and organizational performance
2. The role of decision support systems in organizational change management
3. Personnel training and the effectiveness of information systems in banking institutions.

REFERENCES

- Ashe-Edmunds, S., and Media, D. (2015). *Examples of Direct and Indirect Costs* . Retrieved July 8, 2015, from Small Business Chron:
- Barney, L. (2011). *The Future of Commercial Organisations - Electronification Era*. California: Quick Time Press.
- Barney, L. (2011). *The Future of Commercial Organisations - Electronification Era*. California: Quick Time Press.
- Beg, K. (2018). Impact of Accounting Information System on the Financial Performance of Selected FMCG Companies. *Asian Journal of Applied Science and Technology (AJAST)*, Vol. 2, Issue 3, 08-17.
- Bragg, M. (2010). *The ultimate accountance*. New York: Central Stream Publishers.
- Clinton, B. D., Matuszewski, L., Tidrick, D. (2011). Escaping Professional Dominance? company.
- Deconan Fredrick, D. (2013). *How to Manage Costs in Organisations*. New York: Friends and Friends.
- Doran, J. and O' Mahony, A (2012) *The Changing Role of Management Accountants; Evidence from the Implementation of ERP Systems in Large Organizations*, International Journal of Business and Management, August, 2008
- Elvisa and Erkan (2015) impact of accounting information system on decision making; European researcher 2015, volume (96,) Is. 7 page 460 – 469
- Green Wood and Hinnings (2012) Role of enterprise system in radical organisational change.
- Hafij, Jamil and syeda (2014); Role of accounting information in strategic decision making in manufacturing industries; Global journal of management and business research; online ISSN; 2249-4588.
- Hamilton, R. (2010). *Insurance Costs in Organisations*. Newcastle: University of Newcastle.

- D. (2015). Analysis of Factors Affecting the Success of the Application of Accounting Information System. *International Journal Of Scientific & Technology Research, Vol. 4, Issue 02*, 155-160.
- F. (2011). *Cost Management and Service Delivery*. Berlin: University of Berlin
- R.S. and Cooper, R (2008) *Cost & Effect Using Integrated Cost Systems to Drive Profitability and Performance*, Harvard Business School Press, Boston
- P. (2010). *Relevance of Electronic Systems in Organizations* . Nairobi: University of Nairobi.
- er, G. (2013). *Means of Electronic Payment in Contemporary World*. Colorado: Stem Works Publishing Institute.
- z, H. (2011). *financial risk management*. Hoboken: Wiley.
- edith, J. R., & Mantel, S. J. (2006). *Project management: A managerial approach* (6th ed.). New York: Wiley
- shindo. M, Maureen K M and Zhou J (2014) Impact of Accounting Information Systems on profitability of Small Scale Businesses: A case of Kampala City in Uganda, *International Journal of Academic Research in Management (IJARM)* Vol. 3, No. 2, 2014.
- Muhrtala, T.O. & Ogundeji, M. (2013). Computerized Accounting Information Systems and Perceived Security Threats in Developing Economies: The Nigerian Case. *Universal Journal of Accounting and Finance* Vol. 1(1), 9-18.
- Neogy, T. (2014). Evaluation of Efficiency of Accounting Information Systems on mobile Telecommunication Companies in Bangladesh. *Global Disclosure of Economics and Business, Vol.3, No 1*, 40-50.
- Nwinee, K., et.al. (2016) Impact of Accounting Information System on Organizational Effectiveness: A Study of Selected Small and Medium Scale Enterprises in Woji, Portharcourt. *International Journal for Research in Business, Management and Accounting, Vol. 2, Issue 1*, 974-981.

- Patel, S. (2015) Effects of Accounting Information System on Organizational Profitability. *International Journal of Research and Analytical Reviews*, Vol. 2, Issue 1, 72-77.
- Sabherwal, R., Jeyaraj, A. and Chowa, C. (2006). *Information System Success: Individual and Organizational Determinants*. *Management Science*, 52 (12), 1849-1864
- Santa, H. (2012). *Improving the Efficiency of Financial Institutions*. Colorado: Texan Lamb Publishing Houses
- Soudani, S.N. (2012). The Usefulness of an Accounting Information System for Effective Organizational Performance. *International Journal of Economics and Finance*, Vol. 4, No.
- Zeleny M. (2005) *Management support systems: towards integrated knowledge management*, *Human Systems Management* 7 (1): 59–70. (This article focuses on the future direction of MSS development towards re-integration of expert knowledge.)

Appendices Appendix i: Questionnaire

Respondent.

I am a student of Kampala International University pursuing a bachelor degree of Business Administration accounting and Finance. I am conducting a research on an impact of Accounting information system and decision making: a case study of Bidco manufacturing company in Jinja Uganda.

This questionnaire is mainly for data collection and has been designed for academic purposes and as a partial fulfillment. The researcher will hold confidential any information given and under no circumstance will any one's name appear as an individual. I kindly therefore request that you fill in the questions as instructed respectively.

Tick the appropriate box according to you where applicable. Fill in the information in the space provided.

Yours faithfully

Regina Regan

In this section, you are kindly requested to tick that alternative response that fits your opinion.

SECTION A - Characteristics of respondents

1. Gender

a) Male

b) Female

2. Age

a) 20 – 29

b) 30 – 39

c) 40 - 49

d) 50 +

3. **Qualification academically**

- a) Certificate
- b) Diploma
- c) Degree
- d) Masters

4. **Marital status**

- a) Single
- b) Married
- c) Separated/divorced

5. **Working experience**

- a) 1-4 years
- b) 5-9 years
- c) 10-14 years
- d) 15 and above

Section B: Accounting information systems

6. Instructions Use of likert scale of 1-5 to rank the following alternatives were 1= strongly disagree (SD), 2= Disagree (D), 3= Not sure (NS), 4= Agree (A), 5= Strongly Agree (SA).

Transaction processing system		SA5	A4	A3	D2	SD1
1	Transaction processing system involve both real time and batch transaction in putting					
2	There is good integration between real time and batch TPSs					
3	Information processed on TPSs serves as input to other information systems					
4	All errors are detected, reported and corrected in an					

	automatic manner					
5	The TPSs allow multiple users to work on the systems concurrently					
	Management information system					
1	MISs are well integrated with other information systems in your bank					
2	MISs give timely reports on the progress of business aspects of your bank					
3	The information given by MISs is quite reliable in empowering management					
4	Reports offered by your MISs are concise to facilitate proper understanding					
5	The use of MISs is effective relative to other options available					
	Decision support system					
1	DSSs are well integrated with other information systems used in your bank					
2	Your DSSs tap into reliable databases both internal and external					
3	Your DSSs are majorly task-oriented					
4	Your DSSs only serve as ancillary to most of the					

	management decision processes					
5	DSSs are used to enhance management decision making					

Section C: Decision Making

7. Instructions Use of likert scale of 1-5 to rank the following alternatives were 1= strongly disagree (SD), 2= Disagree (D), 3= Not sure (NS), 4= Agree (A), 5= Strongly Agree (SA).

	Decision Making	SA5	A4	A3	D2	SD1
1	We have effective decision making					
2	Our organization conduct through analysis for decision making					
3	We have competent forecasting for decision and planning					
4	Our decision making is influenced by politics and politicians					
5	We have laws governing our decision making					
6	Planning is done before decisions are made					
7	Decisions made enable expenditure of little revenues					
8	All employees contribute to the decision making					

APPENDIX ii - PROPOSED BUDGET

No	Activities	Costs
1	Transportation of the data collection	150
2	Printing and binding	050
3	Internet use and refreshment	100
4	Hiring clerical assistance	200
5	Miscellaneous	050
	Total	550

APPENDIX iii- TIME FRAME

NO	Time Frame in months	ACTIVITIES/EVENTS
1	Jan- March	Proposal writing
2	April	Preparation, piloting of methods.
3	May	Checking validity and reliability of questioner
4	Late May	Sending questionnaire
5	June	Gaining access of the study
6	July	Data inputs, data analysis writing a reports for oral presentation