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**ACCOUNTING INFORMATION SYSTEM (AIS) AND THE
PERFORMANCE OF MANUFACTURING INDUSTRY IN RWANDA.**

CASE STUDY: BRALIRWA PLC

Period: 2020-2022

A Dissertation Submitted in Partial Fulfillment of the
requirements for the award of Bachelor's Degree in
Accounting

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September, 2023

DECLARATION

We hereby declare to the best of our knowledge that, this dissertation titled “**Accounting information system (AIS) and performance of manufacturing industry in Rwanda. A case of Bralirwa PLC (2020-2022)**” is our original work and the other works which have been used, as references were indicated in bibliography.

Signature.....

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Date/...../2023

APPROVAL

This is to certify that this work titled “**Accounting information system (AIS) and performance of manufacturing industry in Rwanda. A case of Bralirwa PLC (2020-2022)**” is a study carried out by MUZIGA Christine and BAGWANEZA Peninnah under my guidance and supervision.

Signature

Date...../...../2023

William NSABIMANA

DEDICATION

To our families

To our friends

To our classmates

ACKNOWLEDGEMENTS

We acknowledge this project to the glory of Almighty God, the Lord of Universe for giving us the grace and for making it possible for us to successfully complete this project.

Thanks to **Prof. Dr RWIGAMBA BALINDA** the founder and president of Kigali independent university ULK for the facilitation and support in our effort to pursue our university studies.

We owe much to people who directly and indirectly contributed to successful completion of this research work. It is from this note we extend our thanks to all staff of Kigali independent university (ULK). Our special thanks go to our supervisor William NSABIMANA who largely contributed to the success of this work.

We are deeply indebted to the management of BRALIRWA PLC whose kind hospitality provided us an opportunity to carry out our research in their company, and employees who gave us the needed data.

We are grateful to our classmates for their profound assistance, advises and cooperation particularly in academic life.

Our sincere gratitude goes to every person who had contributed for smooth running of our academic needs especially to our Families for prayers, financial contribution, encouragement and advices.

May God bless each and every body mentioned and unmentioned for their support in the realization of this work.

MUZIGA Christine

BAGWANEZA Peninnah

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	x
LIST OF ABBREVIATIONS, ACRONYMS AND SYMBOLS	xii
LIST OF FIGURES	xiv
ABSTRACT	xv
CHAPTER 1: GENERAL INTRODUCTION	1
1.1 Background of the study	1
1.2. Problem statement	3
1.3. Research objectives	5
1.3.1. General research Objective	5
1.3.2. Specific Objectives.....	5
1.4. Research questions	5
1.5. Hypotheses	5
1.6. Significance of the study	6
1.6.1. Personal interest	6
1.6.2. Academic and scientific interest	6
1.6.3. Social interest	6
1.7. Scope of the study	6
1.7.1. Scope in domain	7
1.7.2. Geographical scope	7
1.7.3. Time Scope.....	7

1.8. Structure of the study	7
CHAPTER2. LITERATURE REVIEW.....	8
2.1. Conceptual review	8
2.1.1. Accounting	8
2.1.2. Accounting system	8
2.1.3. Information system.....	9
2.1.4. Accounting information system	9
2.1.5. Performance	9
2.1.6. Financial performance	10
2.1.7. Manufacturing company	10
2.2 Theoretical literature review	10
2.2.1. Contingency Theory	11
2.3. Review on accounting information system	12
2.3.1 Accounting Information System Implementation	12
2.3.2 Technology Utilization.....	12
2.3.3. User Training.....	13
2.3.4 User Expertise	14
2.3.5. Function of accounting.....	14
2.3.5. 1. Recording	14
2.3.5. 2. Classifying.....	14
2.3.5. 3. Summarizing	15
2.3.5. 4. Deals with financial transactions.....	15
2.3.5. 5. Interpretation	15
2.3.6. Objectives of accounting system.....	15
2.3.7. The steps necessary to implement a successful accounting information system	16

2.3.7.1. Detailed requirements analysis.....	16
2.3.7. 2.Systems Design (synthesis).....	16
2.3.7. 3. Documentation	17
2.3.7. 4.Testing.....	17
2.3.7.5. Training	18
2.3.7. 6. Data Conversion.....	18
2.3.7. 7.Launch.....	18
2.3.7. 8.Tools.....	19
2.3.8. General Accepted Accounting Principles	19
2.3.8.1. Main principles of the GAAP framework	19
2.3.9. Effective financial analysis	20
2.3.9.1. Objectives of effective financial analysis.....	20
2.3.10. Review on information quality.....	21
2.3.10.1. Relevance	22
2.3.10.2. Reliability.....	22
2.3.10.3. Comparability.....	22
2.3.10.4. Timeliness	22
2.3.10.5. Faithful Representation	23
2.4. Review on organizational financial performance.....	23
2.4.1 Performance Management.....	23
2.4. 2 Performance measures.....	24
2.4.2.1. Profitability ratios.....	24
Return On Asset	26
2.4.2.2. Liquidity ratios	27
2.4.2.3. Leverage ratio.....	28

2.5. Review of empirical study.....	28
Conceptual framework	30
CHAPTER THREE: RESEARCH METHODOLOGY	31
3.1 Research design.....	31
3.2. Population of the study.....	31
3.3. Sampling techniques and sample size	31
3.3.1. Sample size.....	32
3.3.2. Sampling technique.....	32
3.4. Data Collection Techniques and tools.....	33
3.4.1. Questionnaire technique.....	33
3.4.2. Interview technique.....	33
3.4.3. Documentary technique.....	33
3.5. Validity and reliability tests	34
3.5.1. Reliability	34
3.5.2. Validity.....	34
3.6. Methods of data processing.....	35
3.7. Methods of data analysis	35
3.7.1. Analytical method	35
3.7.2. Historical method	35
3.7.3. Statistical method	35
3.8. Limitations	36
3.9 Ethical considerations	36
CHAPTER 4: PRESENTATION OF THE FINDINGS	37
4.1 Respondents profile.....	37
4.2. Effectiveness of Accounting Information System in Bralirwa PLC	39
4.2.1. Compliance with the GAAP.....	39

4.2.2. The information provided by Bralirwa Accounting reports.....	47
4.2.3. The quality of information provided by the Bralirwa PLC’s accounting report.....	50
4.3 The performance of BRALIRWA PLC within the period of 2020-2022	51
4.3.1 Evolution of turnover of BRALIRWA PLC	51
4.3.2. Evolution of Bralirwa PLC’s net result.....	52
4.3.3. Evolution in earnings per share.....	53
4.3.4 Evolution of equity.....	54
4.3.5 Ratios analysis.....	54
4.3.5.1 Gross Profit Margin.....	55
4.3.5.2 Return on Assets “ROA”	55
4.3.5.3 Ratio of Return on Equity (in thousands Rwf).....	56
4.5. Relationship between AIS and financial performance of Bralirwa PLC	60
CONCLUSION AND RECOMMENDATIONS.....	61
REFERENCES.....	64
APPENDICES.....	68

LIST OF TABLES

Table4.1. Gender of respondents	37
Table4. 2. Age of respondents	38
Table4. 3. Education level attained.....	38
Table4. 4. Length of job experience of respondents.....	39
Table4. 5. Perception of respondent on whether accountant of Bralirwa PLC always respects Principle of regularity.....	40
Table4. 6. Respondents on whether accountant of Bralirwa PLC always applies Principle of consistency	40
Table4.7. Respondents on whether Bralirwa PLC always applies and respects the Principle of sincerity in its accounting.....	41
Table4.8. Respondents on whether Bralirwa PLC always applies and respects the Principle of permanence of methods in its accounting	42
Table4.9. Respondents on whether Bralirwa PLC applies and respects Principle of non-compensation in its accounting	42
Table4.10. Respondents on whether Bralirwa PLC always applies and respects Principle of prudence in its accounting.....	43
Table4.11. Respondents on whether Bralirwa PLC always applies and respects Principle of continuity in its accounting	44
Table4.12. Respondents on whether Bralirwa PLC always applies and respects Principle of periodicity in its accounting	45
Table4.13. Respondents on whether Bralirwa PLC always applies and respects Principle of materiality in its accounting	45
Table4.14. Respondents on whether Bralirwa PLC always applies and respects Principle of utmost good faith in its accounting	46
Table4.15. Respondents on whether Bralirwa PLC's accounting provides enough information company's liquidity.....	47
Table4.16. Respondents on whether Bralirwa PLC's accounting provides enough information on company's profitability	48
Table4.17. Respondents on whether Bralirwa PLC's accounting provides enough information on company's leverage situation	48

Table4.18. Bralirwa PLC’s accounting provides enough information on company’s market value situation	49
Table4.19 Respondents on whether accounting report of Bralirwa PLC provides accurate information to the users	50
Table4.20. Respondents on whether accounting report of Bralirwa PLC provides reliable information to the users	51
Table4. 21. Evolution of turnover of BRALIRWA PLC 2020-2022(000, Rwf).....	52
Table4. 22. Evolution in net income of Bralirwa PLC in 2020-2022.....	52
Table4. 23. Evolution in earnings per share	53
Table4. 24. Evolution of Equities of BRALIRWA PLC (000, Rwf).....	54
Table4. 25. Gross Profit Margin	55
Table4. 26. Return on Assets “ROA”	56
Table4. 27. Ratio of Return on Equity (in thousands Rwf)	56
Table4. 28. Liquidity ratios analysis.....	57
Table4. 29. Leverage Ratios analysis	59
Table4. 30. Correlations between AIS and Performance of Bralirwa PLC	60

LIST OF ABBREVIATIONS, ACRONYMS AND SYMBOLS

AIS	: Accounting Information Systems
BRALIRWA	: Brasseries et Limonaderies du Rwanda
FASB	: Financial Accounting Standards Board
GAAP	: Generally Accepted Accounting Principles
GASB	: Governmental Accounting Standards Board
H1₀	: First Null Hypothesis
H1₁	: First alternative Hypothesis
H2₀	: Second Null Hypothesis
H2_a	: Second alternative Hypothesis
ICT	: Information Communication Technology
IT	: Information and Technology systems
KPSBU	: Koperasi Peternak Sapi Bandung Utara
PLC	: Public Limited Company
PLS	: Partial Least Squares
RFP	: Request For Proposal
ROA	: Return On Assets
ROE	: Return On Equity
Rwfs	: Rwandan francs
SKPD	: Salem Khattak Product Design
SMEs	: Small and Medium Enterprises
SPSS	: Statistical Package for the Social Sciences

TAM	: Technology Acceptance Model
ULK	: Université Libre de Kigali
US	: United State
%	: Percentage

LIST OF FIGURES

Figure2. 1. The Performance Management process..... 24

ABSTRACT

The study is about the contribution of accounting information system (AIS) to the performance of manufacturing industry in Rwanda. A case of Bralirwa PLC (2020-2022). Specifically this study examined the effectiveness of accounting information systems applied by Bralirwa PLC and analyzed the contribution of accounting information system on financial performance of Bralirwa PLC. In virtue to the main purpose of this study, researchers designed an appropriate research methodology and used the interview, documentary and questionnaire techniques to collect and analyse relevant data which allowed the researchers to obtain the following findings:

Regarding to the effectiveness of accounting information systems applied by Bralirwa PLC, results showed that the majority of respondents with 55.6% strongly agreed with this statement It is also observed that 53.1% agreed that Bralirwa PLC always respects the principle of consistency and 46.9% strongly agreed with this statement. Also, the majority of respondents with 69.1% strongly agreed that Bralirwa PLC always respects the principle of sincerity. On the other side researchers realized that 86.4% strongly agreed that Bralirwa PLC comply with the principle of permanence of methods. Regarding the information provided by financial analysis in Bralirwa PLC results show that the majority of respondents with 60.5% strongly agreed that Bralirwa PLC's accounting provides enough information company's liquidity. Therefore, it is from that we reject $H1_0$ in favor of $H1_1$ which means that accounting information system applied by Bralirwa PLC is effective. The performance of this company also was analysed and results shows that from 2020 up to 2022. The ratio of Return on Assets is 7.08 %; 15.05% and 14.45% respectively. From 2020 up to 2022 the ratio of Return on Equity are as following: 21.14%; 30.37% and 40.16% respectively. Correlation Matrix also shows that there is a significant relationship between the variables under study because the value of Pearson coefficient of correlation (.821) which is positive and strong. The value of P-value (.012) which is less than the level of significance 5%, this is evidence that the correlation is statistically significant. This implies that increase in effective AIS leads to a positive increase in performance of Bralirwa PLC. Therefore, we conclude by saying that $H2_0$ is to be rejected in favor of $H2_1$ which means that accounting information system applied by Bralirwa PLC significantly contributes to its performance.

Key concepts: *Accounting information system, manufacturing company and performance.*

CHAPTER 1: GENERAL INTRODUCTION

This part presents the background to the study, significance of the study, scope of the study, problem statement and the research questions. The part further presents the research hypothesis, the study objectives, the research methodology and organization of the study.

1.1 Background of the study

All manufacturing companies are seeking to increase their profitability and revenues through the utilization of available resources and make quick decisions based on correct and accurate information in a timely manner, which in this matter has increased the importance of management information systems. Accounting information systems-as part of the management information systems-represent one of the most important systems in the economic unity and these organizations vary among each other in terms of the application of accounting information systems and the consciousness of their importance (Themistocleous, 2019).

In the past 5 decades, the world has undergone major transformations at all levels (economic, political, social, cultural and technological). so, the economy has moved from a market economy based on capital to a knowledge economy based on the principle of information is the essential and important resource, which can make the enterprise a leader in its field of work, especially in light of the intensification of competition. Accordingly, there is a need for integrated accounting and administrative information systems that deal with all financial and administrative functions of the organization (Hunton. J, 2020).

In the Middle East, a study was done on the impact of accounting information systems on organizational performance of Saudi business (Trabulsi, 2018). It was found that more concern should be directed towards AIS as an enhancement tool for better organizational performance. In a highly competitive and attractive organizational setting like manufacturing company, this seems critical to achieve a competitive advantage.

In Africa Ramli (2019) conducted the research about external factors of training, experience and internal expertise of Accounting Information Systems (AIS) in three, four, and five star rated hotels. The data from the survey were collected through a postal questionnaire to senior accounting managers in three, four, and five star rated hotels. The data were analyzed using Partial Least Squares (PLS), which is the PLS Graph Beta version 3.0. It was found that

experience and internal expertise influenced the usage of the AIS; however, training was not significant to AIS users in the hotel industry in South Africa. Using an extension of Technology Acceptance Model (TAM), this study revealed the wide use of computerized accounting systems.

In East Africa In Uganda, a study was carried out find out the impact of accounting information systems on profitability of Small-Scale Businesses (Muhindo, Mzuza, & Zhou, 2014). They concluded that accounting information system is of great importance in business especially in its management. Accounting information systems should be accredited for the countless values it adds to businesses; this is due to the fact that it helps in enabling management decision making process with the documents that it produces. They also recommended that in order to progress successfully, small businesses should adopt accounting information systems in their business management.

In Rwanda Mukantwali, (2018) conducted a study on the contribution of accounting information system and financial performance of banking institutions case study: Bk Group Plc main branch: 2015-2018) and in his study he realized that AIS contribute a lot to the overall financial performance of financial institution understudy where by providing information that stimulate the success of decision in banking sector.

In earlier time, business organizations were only working towards profit making and survival but in recent time the objectives of business organization have moved beyond profit making into gaining competitive advantage, sustainability, surviving turbulence environment, customer satisfaction and effective decision making are parts of the objective of digital organization. In other to achieve organization objectives, managers require implementing a sophisticated information system and software that will supplies them with adequate and essential business information. Accounting Information System (AIS) contains a series of devices used to undertake a set of common business functions such as accounting, human resources management and stock management. The fundamental nature of a comprehensive AIS is to computerize business process and most importantly, to produce real-time data (Woo. H, 2017).

Accounting Information Systems (AIS) are a tool which, when incorporated into the field of Information and Technology systems (IT), were designed to help in the management and control of topics related to firms' economic-financial area. Since this is important for all firms, it is more

important even for manufacturing companies, which need this information to deal with a higher degree of uncertainty in the competitive market (El Louadi, 2013).

Beke, (2018) refers AIS as a system that combines the methodologies, controls and accounting techniques with ICT to track transactions, provides internal reporting data, external reporting data, financial statements and trend analysis capabilities to improve organization's performance. However, the main benefits of an optimal use of AIS in an organization are: better adaptation to a changing environment, better management of arm's length transactions and a high degree of competitiveness.

Chenhall, (2018) sees AIS as one of the most effective decision making tools of management as it provides an orderly method of gathering and organizing information about the various business transactions so that it may be used as an aid to management in operating the business. In recent time, the adoption of AIS in any business; be it manufacturing or service rendering cannot be over emphasized. AIS is the combination of similar components that are put together to collect raw financial data and transform them into useful financial information for the purpose of reporting them to decision makers. There are several digital and online financial information and these was as a result of emergence of AIS as one of the most critical system in any organization and has also changed its way of capturing, processing, storing and distributing accounting information to the users of financial statement. Therefore, it is from this background researchers intend carry out this study and investigate the impact of accounting information system to the performance of manufacturing companies in Rwanda.

1.2. Problem statement

Organizations suffer from a lack of data integration and speed in information processing, due to their use of traditional systems and simple traditional software that lack better auditing features and systems that enhance interaction between the organization, clients and customers on a larger scale of the database and provide better information for decision makers where organizations can provide their products or services at a higher level Quality grades at the lowest cost (Pincus. K, 2021).

According to El Louadi, (2013) the fact is that generally accepted accounting practices that generate statutory disclosures are seen mainly in isolation and that contextual accounting

practices that generate contextual disclosures are deemed to be of less importance. In order to obtain a complete picture of an entity, the generally accepted accounting practices that generate statutory disclosures should not be seen in isolation, but should be studied together with the contextual accounting practices that generate contextual disclosures.

Manufacturing is the backbone of any industrialized nation. Recent worldwide advances in manufacturing technologies have brought about a metamorphosis in industry. Fast-changing technologies on the product front have created a need for an equally fast response from manufacturing industries. To meet these challenges, manufacturing industries have to select appropriate decisions, product designs, manufacturing processes, work piece and tool materials, and machinery and equipment. The selection of decisions is complex, as decision making is more challenging today and need real accounting information (Judijanto, 2013).

Manufacturing sector has been struggling to thrive and some key firms in the sector have closed operations due to unfavorable working conditions (Kungu, 2015). For example Sameer East Africa closed its Yana Tyres manufacturing factory in Nairobi, citing increased competition from cheaper imports. Statistics from World Bank show that manufacturers operate in Africa registered stagnation and declining profits for the last five years due to a turbulent operating environment (World Bank, 2017).

This problem was supported by a number of various authors such as Anton Arisman, (2017), Alphonse (2014), Firas A.(2018) who talked about the existence of this problem in manufacturing companies. Manufacturing companies continue to fail to perform their business effectively. This is mainly because most of them do not keep accounting records of transactions in the business which make them lose track of their business daily transactions. In return they cannot account for their expenses and their profits at the end of the month. This makes the business fail to make decisions concerning performance. This study tried to bridge this information and therefore its purpose is to investigate the role of accounting information system on manufacturing companies' performance in Rwanda with a case of Bralirwa PLC.

1.3. Research objectives

Researchers conducted this study with the following objectives which are classified into general and specific objectives;

1.3.1. General research Objective

The general objective of the study is to investigate the impact of accounting information system on the performance of manufacturing industry in Rwanda.

1.3.2. Specific Objectives

The study focused on the following two specific objectives:

1. To examine the effectiveness of accounting information systems applied by Bralirwa PLC
2. To analyze contribution of accounting information system on financial performance of Bralirwa PLC

1.4. Research questions

1. Does Bralirwa PLC apply accounting information system effectively?
2. How does Accounting Information System contribute to the performance of Bralirwa PLC?

1.5. Hypotheses

Hypothesis is a proposal response to the question established in the problem statement. This provisional answer is conformed or rejected through observations or experimentations.

Therefore, this study is based on the following hypothesis:

H1₀: Accounting Information System (AIS) applied by Bralirwa PLC is not effective.

H1₁: Accounting Information System (AIS) Applied by Bralirwa PLC is effective.

H2₀: Accounting information system applied by Bralirwa PLC does not contribute significantly to its performance.

H2₁: Accounting information system applied by Bralirwa PLC contributes significantly to its performance.

1.6. Significance of the study

This research helped researchers to have a good opportunity to apply the knowledge acquired from university in practical way as analyzes the contribution of accounting information system to the performance of manufacturing companies in Rwanda.

1.6.1. Personal interest

This research improved our analytical skills as well as practical skills on how the research is conducted. It also lead researchers to the greater understanding of the significance of accounting information system in improving organization's financial performance.

1.6.2. Academic and scientific interest

This research interest in giving the researchers academic requirement for the award of bachelor's degree. Scientifically therefore, it provides an exhaustive documentation to the future researchers and students in their research by just using it as reference.

1.6.3. Social interest

This research will help Rwandan manufacturing industry specifically Bralirwa PLC to understand and get benefits and interest from adaptation and implementation of accounting information system in their business activities particularly this will help to find out their strength and weakness, and allow them to know what to reinforce and maintain in order to perform better.

1.7. Scope of the study

This refers to the boundaries of a study also referred to as delimitation. This research as any other scientific study is limited in terms of time, domain and space (geographical scope) due to both time and financial constraints.

1.7.1. Scope in domain

This research focused on accounting domain.

1.7.2. Geographical scope

The research took place at Bralirwa PLC headquarters located in Kigali city precisely in Kicukiro district.

1.7.3. Time Scope

This research took a time frame of three years from 2020-2022

1.8. Structure of the study

Researchers organized this study into four chapters. The first chapter is the general introduction, where researchers identified the background of the study, clarified the problem statement, it also highlight the hypothesis, significance and the scope of the study. The second chapter dealt with the literature review, some definition of key concepts and theories relating to the subject empirical study, research gap, and conceptual framework. The third chapter dealt with research methodology that researchers used in this study, population and sample size, reliability and validity test as well as ethical consideration. The fourth chapter covered presentation of findings on the effectiveness of Accounting Information System in Bralirwa PLC as well as it effects to the financial performance of this company.

CHAPTER2. LITERATURE REVIEW

This chapter provides an overview of different authors in respect to the topic. Firstly, it clarifies the key concepts of the topic, so that future readers may have the clear idea of terms with which the topic is made up. And to reconcile theory with practice researchers opted to highlight notions of manufacturing companies, accounting information system and performance.

2.1. Conceptual review

This section presents the key concepts of this study such as accounting information system, performance and manufacturing company.

2.1.1. Accounting

Accounting is the process whereby the effects of the economic activities of an enterprise are accumulated, analyzed, quantified in money terms, classified in related groups, recorded in the books of accounts, summarized in financial statements, and reported as information which can be used in making better decisions for the enterprise or organization (Kimuda, 2019).

Accounting is the process by which financial information about a business is recorded classified, summarized, interpreted, and communicated to owners, managers, and other interested parties. The effects of economic changes or activities or events are known as transactions. These are in form of exchange of goods or services using money as the medium of exchange (William, 2021).

American Accounting Association defines accounting as “the process of identifying, measuring and communicating economic information to permit informed judgments and decision by users of the information (Gupta, 2019).

2.1.2. Accounting system

Accounting system as a system that uses computers to input, process, store and output accounting information inform of financial reports. He adds that accounting system records all transactions that routinely deal with events that affect the financial position and performance of an entity (Indira, 2018).

Accounting system as a method or scheme by which financial information on business transactions are recorded, organized, summarized, analyzed, interpreted and communicated to stakeholders through the use of computers and computer based systems such as accounting packages. He emphasized that it's a mechanized process of facilitating financial information inflows as well as the automation of accounting tasks such as database recording and report generation (Marivic, 2019).

2.1.3. Information system

Information system has been defined in terms of two perspectives: one relating to its function; the other relating to its structure. From a functional perspective; an information system is a technologically implemented medium for the purpose of recording, storing, and disseminating linguistic expressions as well as for the supporting of inference making. From a structural perspective; an information system consists of a collection of people, processes, data, models, technology and partly formalized language, forming a cohesive structure which serves some organizational purpose or function (Kenneth, 2018).

2.1.4. Accounting information system

Accounting information system is the set of formal procedures by which data are collected, stored, processed into information and distributed to users. Accounting information system focuses attention on the information accounting provides the users of the information, and the support for financial decisions that is provided by the information. External users of accounting information are individuals and other enterprises that have a financial interest in the reporting enterprise (James, 2017).

The accounting as information system means; a group of systems, methods, and process, governed and controlled by following the fair principles and rules, in order to operate the data about the financial process occurred in the entity to produce financial information (Ismail, 2020).

2.1.5. Performance

Performance is organizational ability to attain its goals by using resources in an efficient and effective manner. He further stresses that the manager's responsibility is to coordinate

resources in the most effective and efficient manner to accomplish the organization's goals. Performance is the end result of motivation: that performance is a function of ability and motivation (Alnajjar, 2019).

2.1.6. Financial performance

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms (Meiryani, 2017).

It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Harash, 2019).

2.1.7. Manufacturing company

According to Ballard (2020) Manufacturing is the use of machines, tools and labor to make things for use or sale; it is most commonly applied to industrial production, in which raw materials are transformed into finished goods on a large scale. Such finished goods may be used for manufacturing other, more complex product, such as household appliances or automobiles, or sold to wholesalers, who in turn sell to them to retailers, who then sell them to end users the 'consumer'.

According to Eckert,(2017), manufacturing is the production of merchandise for use or sale using labour and machines, tools, chemical and biological processing, or formulation. The term may refer to a range of human activity, from handicraft to high tech but is most commonly applied to industrial production, in which raw materials are transformed into finished goods on a large scale.

2.2 Theoretical literature review

The theories, pertinent to accounting information system and financial performance of manufacturing companies reviewed in this study is the Contingency Theory

2.2.1. Contingency Theory

The Contingency theory brought forward by Lawrence & Danny 1976, postulates that an accounting information system should be designed in a flexible manner so as to consider the situation and firm structure within 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. Other early contingency research summarized by (Alqtauna, 2020) found no universally appropriate management accounting system applicable to all organizations in all circumstances. The techniques or system is inherently dependent on specific circumstances of each firm.

Empirical studies have examined growth of business using the contingency theory (Alqatnani, 2022) They used the contingency theory and studied accounting information systems and firm performance and established that accounting information systems improves firm performance and particularly so when the system is designed in a manner that suits the firm and its users.

Fagbemi & Olaoye (2019) used the contingency theory to evaluate accounting information systems and performance of Small scale enterprise in Nigeria. The findings of this study found that accounting information systems hold prospects of enhancing the performance of Small and Medium Scale Enterprises with additional frontiers for such businesses to expand their operation. The study also proves that though contingency factors; computerized accounting information systems and effective inventory control systems; the performance of small business entities are improved upon thereby overcoming the odds associated with obtaining funds needed.

Emad (2017) used the contingency theory to describe the effects of accounting information systems on accounting performance of SMEs in Iraq and concluded that in order to improve performance; managers should devote particular attention to their use of accounting information systems, taking care to adopt systems best tailored to suit their special circumstances. Therefore accounting information systems is viewed as a competence that a business owner may need to make appropriate financial and business decisions in order to achieve competitive advantage and growth in a competitive environment (Emad, 2017).

2.3. Review on accounting information system

Under this sub-section researcher reviewed literature related to the accounting information system and results on it according different authors are presented below.

2.3.1 Accounting Information System Implementation

Information system is a set of interrelated subsystems that work together to collect, process, store, transform, and distribute information for planning, decisions making and the use of computer in information systems can improve the efficiency of information collection, process, store, transform and distribute. In addition, accounting information system (AIS) is a tool which was incorporated in the field of Information and Technology systems (Adenike, 2019).

Accounting information system is very important for business entities. This is the one responsible in generating reliable financial information needed for decision making. Various designs of system must consider the factors that influence information that is gathered and reported. It will still depend on the anticipated users of the information and the types of decisions they are expected to make. The design of the system may also depend on the size of the firm, volume of transaction data, nature of operations, organizational structure and business form (Afunadula, 2018).

2.3.2 Technology Utilization

Information technology is the study or use of electronic equipment, overcoming the computer, for storing, analyzing, and any information, including key words and images. Information technology includes hardware and software to perform one or more data processing tasks such as capturing, transmitting, storing, and retrieving, manipulate, or displaying data. Dimensions of information technology is the intensity of utilization, the frequency of utilization and the number of applications or software used (Algrari, 2021).

The usage of computers and other advanced technology have increasingly been adopted in most practices including accounting. Accountants were vigorously involved in all accounting activities as the traditional methods were in place. Daily records had to be kept by humans, preparation of financial statements such as the statement of financial position and statement of comprehensive

income were done manually by the accountant (Younes, 2022). The implication of technology has indeed caused obvious changes in organizations relating to their accounting systems and organizational performance, which has been of great concern and interest (Bodnar, 2016). Accounting decisions and plans have to be made in order for companies to stay relevant and competitive. It is necessary to acknowledge that computerized systems, have improved the functionality of accounting departments in organizations (Buljubasic, 2017).

2.3.3. User Training

Training is the process whereby people acquire the capability to assist in the achievement of organizational goals. Training is organized activities to enhance the knowledge and skills of the people to achieve certain goals (DeLone, 2019). Training means giving employees new skills or ongoing required for the performance of their work. The user training is to get the most of the accounting information system. Training is not only related to activities such as data entry, but also involves all aspects of the use of new information systems. So that the users should be educated how new technologies affect the company's operations and business management (Emad H. , 2017).

Users of accounting information systems are mostly people who are simply going to use information systems that have been developed, such as operators and managers. Training needs arising due to gap between the knowledge, skills and experience of the individual with the necessary to carry out their work. If company management understands how to use the system properly, that is implemented through a good process; the application system owned by the company will provide more benefits to the company (Esmeray, 2021).

The training has a significant influence toward the successful implementation of information systems. Revealed that the availability of training, management support and involvement of users contribute to improving the use of information system, if the system is considered useful and easy to use. The primary objective of financial accounting information system is to provide relevant financial information to the individual or group outside of an organization such as investors, government, state agencies and creditors (Fagbemi, 2017).

2.3.4 User Expertise

User skills are actions and actions performed through a predetermined target or capability. User expertise is associated with the knowledge and skills possessed by the user in operating the computer by using the accounting information system (Fontinelle, 2019). The measure of user expertise can be seen from the average education, training and level of experience (Gavrea, 2017).

2.3.5. Function of accounting

Under this section researchers explained accounting function such as recording, classifying, summarizing, dealing with financial transactions and interpretations.

2.3.5. 1. Recording

This is the basic function of accounting; it is essentially concerned with not only ensuring that all business transactions of financial nature are in fact recorded in an orderly manner. Recording is done in the book known as 'journal', this book may be further sub-divided into various subsidiary books such as cash journal (recording cash transactions), purchase journal (recording credit purchases of goods or services), sales journal (for recording credit sales of goods and or services). The number of subsidiary books to be maintained will be according to the nature and size of the business, (Maheshwari, 2019).

2.3.5. 2. Classifying

Classification is concerned with the systematic analysis of the recorded data, with a view to group transactions or entries of one nature at one account.

The work of classifying is done in the book termed as 'ledger', this book contains on different pages individual account heads under which all financial transactions of similar nature are collected, (Adrian Buckley, 2018).

2.3.5. 3. Summarizing

This involves presentation of accounts which classifies data in a manner which is understood and useful to the internal as well as external end users of accounting information. This process leads to the preparation of the following statements: Trial balance, cash flow statement, income statement, balance sheet statement and notes statement, (Adrian Buckley, 2018).

2.3.5. 4. Deals with financial transactions

Accounting records only those transactions and events in terms of money, which are of the financial character, transactions that are not of financial character are not recorded in the book of account for example if the company has got a team of dedicated and trusted employees, it is of the great use to the business but since it is not of financial character and capable of being expressed in financial or monetary terms, it will not be recorded in the books of account of the business (Adrian, 2018).

2.3.5. 5. Interpretation

This is the final function of accounting. The recorded financial data is interpreted in the manner that the end users can make a meaningful judgment about the financial conditions and profitability of the business operations. The data is also used for preparing future plans and framing of the policies for executing such plans, (Adrian Buckley, 2018).

2.3.6. Objectives of accounting system

To provide means by which interested parties may be given information on the financial position and results of operations of an enterprise, (Richard, B. 2020)

To facilitate management in accounting information system, control and decision making; to comply with various laws and government requirements; to protect the business and safeguard its assets and to accomplish different routine administrative activities like billing, paying receiving, purchasing, etc.

2.3.7. The steps necessary to implement a successful accounting information system

Boockhold, (2020) identified the main steps necessary to implement a successful accounting information system. Those steps are detail below:

2.3.7.1. Detailed requirements analysis

The current system is thoroughly understood, including problems and complete documentation of the current system transactions, reports, and questions that need to be answered are gathered. What the users' need that is not in the current system is outlined and documented. Users include everyone, from top management to data entry. The requirements analysis not only provides the developer with the specific needs, it also helps users accept the change. Users who have the opportunity to ask questions and provide input are much more confident and receptive of the change, than those who sit back and don't express their concerns (Mingers, 2019).

2.3.7. 2.Systems Design (synthesis)

The analysis is thoroughly reviewed and a new system is created. The system that surrounds the system is often the most important. What data needs to go into the system and how is this going to be handled? What information needs to come out of the system, and how is it going to be formatted? If we know what needs to come out, we know what we need to put into the system, and the program we select will need to appropriately handle the process (Boockhold, 2020).

The system is built with control files, sample master records, and the ability to perform processes on a test basis. The system is designed to include appropriate internal controls and to provide management with the information needed to make decisions. It is a goal of an accounting information system to provide information that is relevant, meaningful, reliable, useful, and current. To achieve this, the system is designed so that transactions are entered as they occur (either manually or AIS) and information is immediately available on-line for management to use (Murphy, 2019)

Once the system is designed, an RFP is created detailing the requirements and fundamental design. Vendors are asked to respond to the proposal and to provide demonstrations of the product and to specifically respond to the needs of the organization. Ideally, the vendor will

input control files, sample master records, and be able to show how various transactions are processed that result in the information that management needs to make decisions(Mingers, 2019)..

An RFP for the information technology infrastructure follows the selection of the software product because the software product generally has specific requirements for infrastructure. Sometimes, the software and the infrastructure is selected from the same vendor. If not, the organization must ensure that both vendors will work together without "pointing fingers" when there is an issue with either the software or the infrastructure (Nelson, A. 2019)

2.3.7. 3. Documentation

As the system is being designed, it is documented. The documentation includes vendor documentation of the system and, more importantly, the procedures, or detailed instructions that help users handle each process specific to the organization. Most documentation and procedures are on-line and it is helpful if organizations can add to the help instructions provided by the software vendor. Documentation and procedures tend to be an afterthought, but is the insurance policy and the tool that is used during testing and training prior to launch. The documentation is tested during the training so that when the system is launched, there is no question that it works and that the users are confident with the change (Ross and James, 2018)

2.3.7. 4. Testing

Prior to launch, all processes are tested from input through output, using the documentation as a tool to ensure that all processes are thoroughly documented and that users can easily follow the procedures so that you know it works and that the procedures will be followed consistently by all users (Adrian, 2018).

The reports are reviewed and verified, so that there's not a garbage in-garbage out. This is all done in a test system not yet fully populated with live data. Unfortunately, most organizations launch systems prior to thorough testing, adding to the end-user frustration when processes don't work. The documentation and procedures may be modified during this process. All identified transactions must be tested during this step in the process. All reports and on-line information must be verified and traced through the "audit trail" so that management is ensured that

transactions will be handled consistently and that the information can be relied upon to make decisions (Robert, E. 2017)

2.3.7.5. Training

Prior to launch, all users need to be trained, with procedures. This means, a trainer using the procedures to show each end user how to handle a procedures. The procedures often need to be updated during training as users describe their unique circumstances and the "design" is modified with this additional information. The end user then performs the procedure with the trainer and the documentation. The end user then performs the procedure with the documentation alone. The end-user is then on his or her own with the support, either in person or by phone, of the trainer or other support person (James, 2018)

2.3.7. 6. Data Conversion

Tools are developed to convert the data from the current system (which was documented in the requirements analysis) to the new system. The data is mapped from one system to the other and data files are created that will work with the tools that are developed. The conversion is thoroughly tested and verified prior to final conversion. Of course, there's a backup so that it can be restarted, if necessary (Gupta, (2021)

2.3.7. 7.Launch

The system is implemented only after all of the above is completed. The entire organization is aware of the launch date. Ideally, the current system is retained and oftentimes run in "parallel" until the new system is in full operation and deemed to be working properly. With the current "mass-market" software used by thousands of companies and fundamentally proven to work, the "parallel" run that is mandatory with software tailor-made to a company is generally not done. This is only true, however, when the above process is followed and the system is thoroughly documented and tested and users are trained prior to launch (Eddie, 2022).

2.3.7. 8.Tools

Online resources are available to assist with strategic accounting information system of accounting information systems. Information Systems and Financial Forms aid in determining the specific needs of each organization, as well as assign responsibility to principles involved (Ashish, K.2019).

2.3.8. General Accepted Accounting Principles

GAAP consists of a common set of accounting rules, requirements, and practices issued by the Financial Accounting Standards Board (FASB) and the Governmental Accounting Standards Board (GASB). GAAP sets out to standardize the classifications, assumptions and procedures used in accounting in industries across the US. The purpose is to provide clear, consistent and comparable information on organizations financials (Curtis, 2019).

2.3.8.1. Main principles of the GAAP framework

Principle of regularity	The organization's accounting adhered to the standards of GAAP.
Principle of consistency	The organization's accounting practices are consistent and comparable every reporting period.
Principle of sincerity	The organization's accounting is accurate and correct depiction of the financials.
Principle of permanence of methods	The organization's accounting practices are constant across financial periods.
Principle of non-compensation	All aspects of an organization's performance are fully reported with no prospect of debt compensation.
Principle of prudence	The accounting entries are timely and realistic.

Principle of continuity	Short-term and long-term classifications of financial information are based on the idea the entity will remain in business.
Principle of periodicity	The accounting periods are regular, routine, and consistent.
Principle of materiality	Assets are valued at cost and all financial reports are based on truthful information.
Principle of utmost good faith	Every person involved in the accounting process is acting honestly.

Source: (Choe, 2020)

2.3.9. Effective financial analysis

Financial statement analysis consists of tools and techniques applied analytically to commonly-used financial statements such as balance sheets, income statements, etc. and other connected data to identify useful information in making business decisions. For investment purposes, it is used as a screening tool to determine which companies are worth investing in and as a forecasting tool to estimate how well a business will perform in the future. This analysis also has a diagnostic function which is to look at financing, investing, operating activities and their efficiency, as well as, evaluating the effect of managerial and other business decisions (Berstein, 2019).

2.3.9.1. Objectives of effective financial analysis

A comprehensive analysis of a company's financial statements, first of all, shows its strengths and weaknesses. From assessing past and current financial statements, analysts can gather the firm's present financial condition and structure. This includes how it finances its activities, whether it has enough liquid assets to meet its short-term obligations, if it has an efficient and effective asset management policy, its competitiveness in the industry while remaining profitable

and its long-term debt financing. This helps to determine the farm's long-term viability and whether suitable returns are being made with regard to the risk involved (Besanko, 2017).

Rustagi, (2020) mentioned that analysts of financial statements may also discover pertinent information for managers of a company with regards to recent trends and occurrences that can influence further planning or implementation of management policy. Such information can overhaul already-made decisions in order to ensure responsible maximization of shareholder wealth.

Berstein, (2018) summarization the main reasons for financial statement analysis as follows:

a) For creditors:

To find out reasons for a company's need of additional financing; to find out how a debtor plans to pay back principal and interest; to assess how previous debts were handled and to know whether there would be additional requests for financing in the future.

b) For current and potential shareholders:

To view the company's present and long-term operations; to estimate future revenue potential; to find out the current financial situation of the company and the factors that led to it; the vulnerability of its revenue to significant variability; to determine the firm's capital structure and whether it benefits the company and its position with regards to competitors.

2.3.10. Review on information quality

According to IASB, the essential principle of assessing the financial information quality is related to the faithfulness of the objectives and quality of disclosed information in a company's financial reports. These qualitative characteristics enhance the facilitation of assessing the usefulness of financial reports, which will also lead to a high level of quality. To achieve this level, financial reports must be faithfully represented, comparable, verifiable, timely, and understandable. Thus, the emphasis is on having transparent financial reports, and not having misleading financial reports to users; not to mention the importance of preciseness and predictability as indicators of a high financial reporting quality (Gajevszky, 2018).

2.3.10.1. Relevance

Relevance is closely associated with the terms usefulness and materiality. Relevance illustrates the capability of making decisions by users. When information in financial reports influences users in their economic decisions, it is said that this information has the quality of relevance. Also, when this information assists users to evaluate, correct, and confirm current and past events, it is useful. The usefulness of making a decision an important part of relevance is consistent with the conceptual framework (Cheung, 2020).

2.3.10.2. Reliability

Reliability is another critical factor of financial reporting quality. In financial reporting, information must have the quality of reliability in order to be useful. This quality is achieved when information, which users depend upon, is free from bias and material mistakes. Reliability is analyzed based on the qualities of faithful, verifiable, and neutral information (Downen, 2019) (Cheung, 2019).

2.3.10.3. Comparability

Comparability is the concept of allowing users to compare financial statements to determine the financial position, cash flow, and performance of an entity. This comparison allows users to compare across time and among other companies in the same period (Evans 2020)

To indicate this point, the notes in financial reports should disclose and explain all the changes in accounting policies and the implications of these changes, not to mention the importance of consistency in applying accounting policies and principles. Also, the current accounting period results can be compared with the ones from previous periods. Lastly, presenting financial index numbers and ratios contributes to the comparison with other organizations (Beest, 2018).

2.3.10.4. Timeliness

Timeliness is another enhancing qualitative characteristic. Timeliness illustrates that information must be available to decision makers before losing its powerful and good influences. When assessing the quality of reporting in an annual report, timeliness is evaluated using the period

between the year-end and the issuing date of the auditor's report the period of days it took for the auditor to sign the report after the financial year-end (Boelens, 2019).

2.3.10.5. Faithful Representation

Faithful representation is the concept of reflecting and representing the real economic position of the financial information that has been reported. This concept has the value of explaining how well the obligations and economic resources, including transactions and events, are fully represented in the financial reporting. Moreover, this quality has neutrality as a sub notion which is about objectivity and balance. According to Willekens, (2018) researchers concluded that the auditors 'report adds value to financial reporting information by providing reasonable assurance about the degree to which the annual report represents economic phenomena faithfully. Additionally, how business organizations are controlled and directed affects the faithful presentation quality; this, in fact, is represented as a corporate governance factor when there is extensively disclosed information on corporate governance issues in the annual report (Braam, 2019).

2.4. Review on organizational financial performance

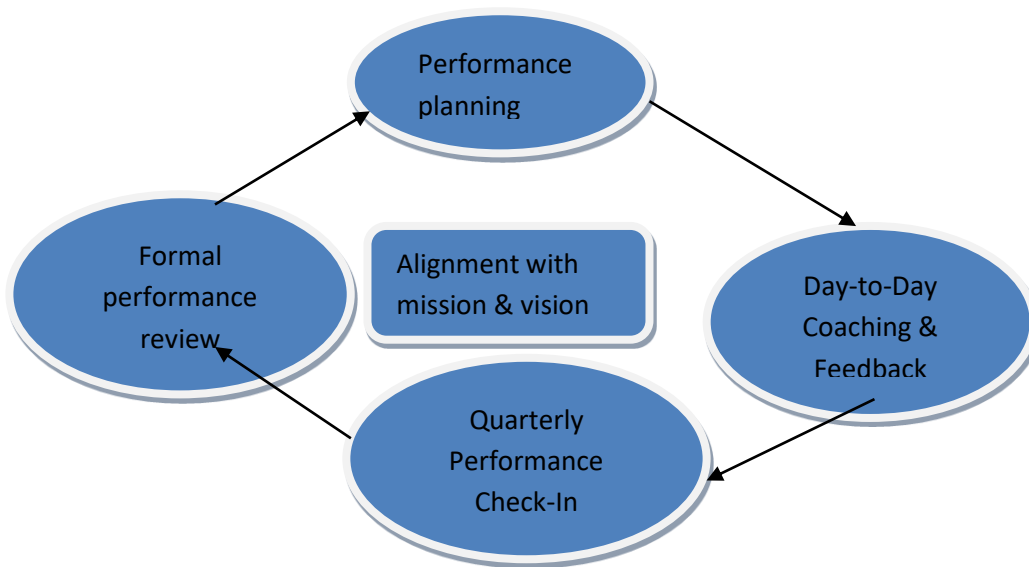
Various theories has been written on financial performance and since one of the objectives of this research is to assess financial performance of the manufacturing company under study bellow theories clarify more on financial performance.

2.4.1 Performance Management

David, (2019) Performance management (PM) is a goal-oriented process directed toward ensuring that organizational processes are in place to maximize the productivity of employees, teams, and ultimately, the organization. It is a major player in accomplishing organizational strategy in that it involves measuring and improving the value of the workforce. PM includes incentive goals and the corresponding incentive values so that the relationship can be clearly understood and communicated. There is a close relationship between incentives and performance.

Performance management is the single largest contributor to organizational effectiveness. If you ignore performance management, you fail. Organizations must take a more strategic approach to performance appraisal. Instead of using the familiar “check the box, write a comment” ritual, organizations need to integrate the company’s mission, vision, and values into their performance management systems (Kathryn Tyler 2015).

Figure2. 1. The Performance Management process



Source: Neely, A.D. (2019)

2.4. 2 Performance measures

Under these section researchers reviewed literature related to the two main performance measures which are profitability and liquidity ratios.

2.4.2.1. Profitability ratios

James Clausen (2019), He state that the Profitability Ratio Analysis of Income Statement and Balance Sheet Ratio analysis of the income statement and balance sheet are used to measure company profit performance. He said the learn ratio analyses of the income statement and balance sheet. The income statement and balance sheet are two important reports that show the profit and net worth of the company. It analyses shows how the well the company is doing in

terms of profits compared to sales. He also shows how well the assets are performing in terms of generating revenue. He defines the income statement shows the net profit of the company by subtracting expenses from gross profit (sales – cost of goods sold). Furthermore, the balance sheet lists the value of the assets, as well as liabilities. In simple terms, the main function of the balance sheet is to show the company's net worth by subtracting liabilities from assets. He said that the balance sheet does not report profits, there's an important relationship between assets and profit. The business owner normally has a lot of investment in the company's assets.

Cohen (2021) In order to evaluate and indicate the performance of a company, the economic analysts refer to some indicators, such as growth of sales / sales volume, the effectiveness of competition, the result or income of the company; the effectiveness of the system as a whole etc.

Therefore, for assessing well the performance of any institution the following measures are commonly used:

Net profit margin or rate of return on sales

According to Cohen (2001) commercial viability relates to the pricing policy applied by the company and the margin it takes on goods and services. It is expressed by the ratio of the net profit on sales

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Sales}} \times 100$$

This is a ratio that expresses the company's net margin or simply the index of profitability of the company. Gross profit mark up, margin and net profit margin show how well a business is doing in terms of profit earned from trading and the whole business activity.

This ratio is an economic indicator which has great importance because it measures the profit earned by the company for each monetary unit of sale. It also shows the market share customer loyalty new customer attraction, customer satisfaction, profitability by market segment, customer, product, market etc.

Total Asset Turnover or Profitability

It is obtained by comparing the total assets of the company and the result expressing all company's activities. According to BERNARD and COLL, (2012), asset turnover is calculated as follow:

$$\text{Asset turnover} = \frac{\text{Turnover}}{\text{Total Asset}} \times 100$$

Return On Equity (ROE)

This involves the relationship between the net results for the period on the equity the shareholders have invested in the company. It express the ratio between net income and shareholders' equity this ratio is referred to as return on equity is a tool of financial analysis that interests most shareholders. It measures what their investment gives back to them.

$$\text{Return on equity(ROE)} = \frac{\text{Net income}}{\text{Tota Equity}} \times 100$$

Return On Asset

Return On Assets (ROA) are thought to be the most effective instrument of measuring monitoring the financial status of companies. In most literature, revenues from sales, total operating cost and asset structure of a company plays an important role in shaping an acceptable ROA indicator. The long-term trajectory of ROA is the best financial scorecard of a company's health and an indicator of how its decisions play out. Understanding the trajectory provides a foundation for taking a longer-term perspective that can help companies shape winning strategies (Hagel, 2013).

ROA is a helpful metric for gauging a single company's performance. When a firm's ROA rises over time, it indicates that the company is squeezing more profits out of each dollar it owns in assets. Conversely, a declining ROA suggests a company has made bad investments, is spending too much money and may be headed for trouble. And An ROA of 1% or more is typically considered good. In general, the higher the ROA, the more efficient the company is at generating profits. However, any one company's ROA must be considered in the context of its competitors in the same industry and sector (Jilly, 2016).

$$\text{Return On Asset (ROE)} = \frac{\text{Net income}}{\text{Total Asset}} \times 100$$

2.4.2.2. Liquidity ratios

1. Current ratio

Current assets include cash and those assets which can be converted into cash within a year such as marketable securities debtors and inventories. All obligations within a year are included in current liability (breaver, 2020). The current ratio formula is

$$\text{Current ratio} = \frac{\text{current asset}}{\text{current liabilities}}$$

According to Lassala, (2017) if Current Assets > Current Liabilities, then Ratio is greater than 1.0 -> a desirable situation to be in. If Current Assets = Current Liabilities, then Ratio is equal to 1.0 -> Current Assets are just enough to pay down the short term obligations. If Current Assets < Current Liabilities, then Ratio is less than 1.0 -> a problem situation at hand as the company does not have enough to pay for its short term obligations (Lassala, 2017).

2. Quick ratios or liquid ratio

A quick ratio of 1 or above indicates that the company has sufficient liquid assets to satisfy its short-term obligations. An extremely high quick ratio, on the other hand, isn't always a good sign. This is because a very high ratio could indicate that the company is resting on a significant amount of cash (Wardiyah, 2017). Quick Ratio helps stakeholders measure an entity's capacity to pay off its short term obligations by using its liquid assets like cash, accounts receivable and marketable securities (Faisol, 2007).

Quick ratio establish relationship between quick (or liquid) asset and liabilities

$$\text{Quick ratio} = \frac{\text{current Asset} - \text{Inventory}}{\text{current liabilities}}$$

2.4.2.3. Leverage ratio

Leverage simply leads to explore the extent to which the firms depend on financial institutions to respond to its funding needs, i.e. the degree of dependence of the firms in financing its investment using sources of financial interest fees, whether these resources are bank loans, debt securities or any other debt financial instruments. All these resources have direct impact on the shareholders profit and on increasing the risk exposure of the firm to the default risk. It depends on the use of third part resources to maximize the profit of the firm shareholders (Zutter, 2021).

To measure financial leverage that we calculate the ratio of long and short-term debts to the total assets. It is directed related to the capital and funding structure of the firm. The Financial leverage is considered effective if the firm can invest the borrowed funds at a rate higher than the cost of the borrowed funds. In case that the firm could not be able to reach this objective, then it is exposed to a high level of risk and potential losses, which forces it to decrease the financial leverage due to the negative impact on firm performance (Vijayalakshmi, 2015).

Therefore, below are the leverage ratios formulas:

$$\text{Debt to Asset Ratio} = \frac{\text{Total liabilities}}{\text{Total Assets}}$$

$$\text{Debt to equity ratio} = \frac{\text{Total liabilities}}{\text{Total Equity}}$$

$$\text{Equity Multiplier Ratio} = \frac{\text{Total Assets}}{\text{Total Equity}}$$

2.5. Review of empirical study

Ramli (2019) conducted the research about external factors of training, experience and internal expertise of Accounting Information Systems (AIS) in three, four, and five star rated hotels. The data from the survey were collected through a postal questionnaire to senior accounting managers in three, four, and five star rated hotels. The data were analyzed using Partial Least Squares (PLS), which is the PLS Graph Beta version 3.0. It was found that experience and internal expertise influenced the usage of the AIS; however, training was not significant to AIS

users in the hotel industry in South Africa. Using an extension of Technology Acceptance Model (TAM), this study revealed the wide use of computerized accounting systems.

Ramadhan, (2020) conducted the research about accounting information system implementation using variable the use of information technology, user competence and implementation of internal control. The Object of their research is 30 employees Koperasi Peternak Sapi Bandung Utara (KPSBU) Lembang. The research was done by using the descriptive and verification approaches using Partial Least Square analysis and quantitative methods. Source data used is primary data and data was also collected through questionnaires to be tested for validity and reliability. The utilization of technology information has significant positive effect toward the accounting information systems implementation at KPSBU Lembang to 19,48%. User competence has significant positive effect on the accounting information systems implementation at the koperasi peternak sapi bandung utara lembang to 21,7%. The implementation of internal controls has a significant positive effect on the accounting information systems implementation at KPSBU Lembang.

Nova, (2021) conducted the research about the effect of information technology use, user expertise, and intensity of usage affecting the accounting information system implementation. Populations in this study is a subsection of finance, treasurer, manager of the accounting department, and finance staff who is work in the unit of work in the SKPD Kab. Indragiri Hulu. The sampling technique is using purpose sampling. Total respondents in this research are 60 respondents. The data of this research is using primary data directly through a questionnaire and it is analyzed using SPSS 17. The data were analyzed to test the hypothesis using multiple linear regression analysis approach. This study indicated that information technology and user expertise has a significant to accounting information system implementation Whereas the intensity of usage does not affect the accounting information system implementation.

Fitrios, (2018) conducted research aims to determine the effect of top management commitment and user training on the implementation of accounting information systems. This study was conducted at hospitals type A, B and C in the region of Riau Province, Indonesia. The number of hospitals that fulfill the criteria to have the accounting information system are 42 hospitals. Totally 34 questionnaires are returned by respondents and can be processed. Data obtained are processed using SPSS version 21. The result showed that the top management commitment and

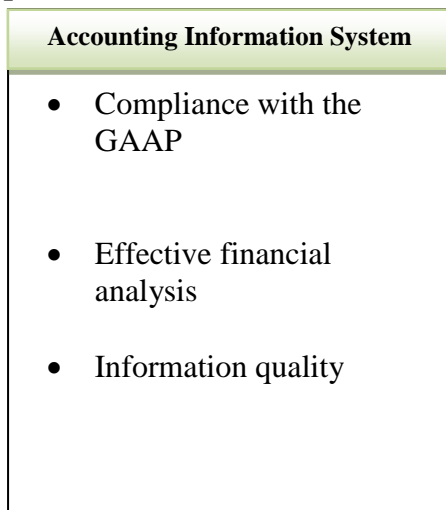
user training affect the accounting information system implementation at hospitals type A, B, and C in the province of Riau. The results also showed that the implementation of accounting information system affect the accounting information quality.

Conceptual framework

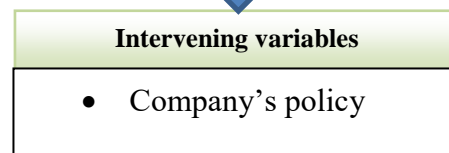
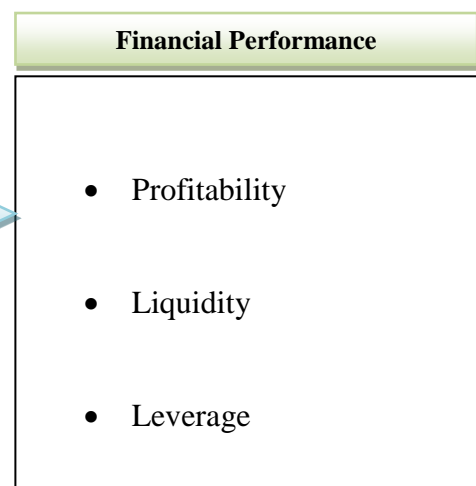
The graph hereafter, represents the independent and dependent variables. Since there are many variables, the researcher shall concentrate on three most important variables such as Independent variable, Dependent variable and Intervening variable. This conceptual framework interlinks those three variables following their interdependence. The below given Conceptual framework, it is clear accounting information system as Independent variables and performance of manufacturing companies as dependent variable and thirdly the company's policy as an intervening variable.

Figure1. 1 Conceptual Framework

Independent Variable



Dependent Variable



Source: Researchers, 2023

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter illustrates the procedures that researchers used for this research, in regard of the research method and data collections. Saunders, (2017) stated that research methodology is a theory of how research should be undertaken, including the theoretical and philosophical assumptions upon which the research is based and implications of these for the methods or methods adopted. Thus, this chapter presents the sample that researchers selected and set out the method that used for data collection along with the process of data analysis, ethical issues and limitations associated with the study.

3.1 Research design

Kothari, (2017) defines Research design as the arrangement of conditions for collections and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedures. The study used a descriptive survey study research design, which aimed at examining the effect of accounting information systems on financial performance manufacturing companies in Rwanda. A descriptive survey is usually concerned with describing a population with respect to important variables with the major emphasis being establishing the relationship between the variables. This design attempts to collect data from members of the population and describes existing phenomenon with reference to Accounting Information Systems (AIS).

3.2. Population of the study

Population of study is a group of individuals who have one or common characteristics that are of interest to the researchers, (Kothari P. , 2017). In addition, population is referred as a full set of cases from which a sample is taken (Kuada, 2016). Therefore, for this case researchers consulted the annual financial statement of BRALIRWA PLC for the period of three years from 2020-2022 while assessing the performance of this company. On the other side researchers target all employees of BRALIRWA PLC 418 (Bralirwa PLC, 2023).

3.3. Sampling techniques and sample size

Under this section researchers presented the sampling technique and sampling size used

3.3.1. Sample size

A sample is a set of entities drawn from a population with the aim of estimating characteristic of the population (Mugenda, 2003). The basic idea of sampling is selecting some of the elements in a population, so that the same conclusions can be drawn about the entire population (Cooper, 2019). This results in reduced cost and greater accuracy of results. During the present research, researchers need to have a small number of respondents who should provide data in need for the success of the work. For choosing the sample size, the researchers followed Yamane (1996) formula presented as follow:

$$n = \frac{N}{1+N(e)^2}$$

Where n= sample size

N= size of the population

e= margin error or confidence level ordinary equals to 10%

$$N = \frac{418}{1+418(0.1)^2} = 80.69 = 81 \text{ staffs.}$$

Table3. 1. Repartition of sample on departmental basis

Department	Population	Sample
Accounting department	34	34*81/86= 32
Finance Department	30	30*81/86=28
IT department	20	20*81/86=19
Director of finance	1	1*81/86=1
Head of IT Department	1	1*81/86=1
Total	86	81

3.3.2. Sampling technique

As defined by Kuada, (2016) purposive sampling refers to a group of non-probability sampling techniques in which units are selected because they have characteristics that you need in your sample. In other words, units are selected “on purpose” in purposive sampling. Therefore, for this case researchers used Purposive sampling and only consider staff from Accounting; Finance

and ICT department as well as directors of finance and IT departments because they are the one that have enough information on the matter of the concern.

3.4. Data Collection Techniques and tools

Researchers used both primary sources and secondary sources of data in this study. Empirical data were collected from different sources to ensure their reliability and validity. Researchers collected primary data through structured interviews and questionnaires while they obtained secondary data through documentary review such as financial statements as well as published books and journals.

3.4.1. Questionnaire technique

Questionnaires were a suitable instrument because they gave the researcher a larger scope under which to conduct the research. They are also preferable to use because they allow the respondents to express their perception on the matter of the concern.

The structure of the questionnaire consists of both structured and unstructured questions. Structured questions were useful since they reduce variability in meanings possessed by questions. They also offer ways of ensuring comparability of the responses given by respondents. Unstructured questions on the other hand were useful because they helped respondents provide insightful information that was relevant while answering the research questions (Romney, 2019). Therefore, questionnaire was given to 81 sampled staff of Bralirwa PLC.

3.4.2. Interview technique

Neuman, (2017) defined interview as a techniques that aims at organizing a report of oral communication between two people: the interviewer and the interviewee in order to allow the investigation to collect same information about the subject. For this study to be reliable and accurate, researchers collected data using interviews conducted to some staff of Bralirwa PLC particularly to Director of Finance and Head of I T department.

3.4.3. Documentary technique

According to Grinner, (2016), documentation is a data collection method based on reading books and other documents like reports and brochures in order to get the back ground and find out

information of studies on similar topics. While collecting data, different books, brochures, reports, websites, daily information through internet consulted.

This technique helped a researcher to get and give the frame work of this research. They also collect through documents consulted like reports, brochures, documents, other dissertation books and different books.

3.5. Validity and reliability tests

In this section researchers tested the reliability and validity of the instrument employed in the present study

3.5.1. Reliability

According to Gibson, (2020).reliability refers to random error in measurement. Reliability indicates the accuracy or precision of the measuring instrument. The researchers used the test-retest reliability technique where pilot tests questionnaires were distributed to 10% of the selected respondents so as to examine the appropriateness of responses from respondents before applying the questionnaire to the entire sample. This enabled the researchers to address errors or irregularities that would appear during the research exercise.

3.5.2. Validity

Siklos, (2018) defines validity of results as a degree to which results obtained from the analysis actually represent the variables of study. Thus, validity refers to whether the findings accurately reflect the situation and are supported by evidence. Validity is established by correlating the scores with a similar instrument. Therefore, for the present study researchers used pre-test technique to confirm the validity of the instrument by developing a pilot set of questions and asking them to a number of people, to verify whether the questions are clearly worded and easily understood and whether the respondents know the answers or not. The results of pilot questionnaire may identify a number of deficiencies such as wording and some missing elements crucial to provide an answer to the specific aspect of the research including the effects of accounting information system to the overall performance of BRALIRWA PLC. Researchers then revised and corrected questionnaire accordingly before launching it to the field.

3.6. Methods of data processing

Researchers analyzed data after editing, coding and tabulation. This analysis will base on percentages, correlations and other ratios which are not interpreted in % that researchers will obtain to show the relationship between the variables under study. Researchers summarized the information according to the objectives of the study. For this research to be successful; the researchers used the analytical method. This helped to separate different parts that make a whole data in order to realize a crucial study of each one aside.

3.7. Methods of data analysis

A method is a set of intellectual operations that a discipline uses to reach to the reality that pursues demonstrates and verifies it» (Pinto, 2018). For this study, researchers used the following methods:

3.7.1. Analytical method

This method consists in analyzing systematically the collected data. According to Macmillan English dictionary (2013), the word analytical is using a method of separating things into their order to examine and understand them. This method helped researchers to analyze systematically data and information that researchers collected from different books, report and other different sources that were consulted during our research.

3.7.2. Historical method

The historical method refers to a study of event, process, and institutions of past civilizations for the purpose of finding the origins or antecedents of contemporary social life and thus understanding its natural and working (Shankar M, 2016). This method helped researchers to know the important passed events of BRALIRWA PLC. In order to outline the evaluation of the facts on the topic over the period of the research.

3.7.3. Statistical method

Moser and Kalton (2018) assert that, after data were edited and coded, it was combined together in some form tables, bar graphs and pie charts for statistical analysis. With this method, researchers have to number, quantify and present the results of the research in tables

for better interpretation. On the other side correlation coefficient and regression was used in order to estimate the level of relationship between independent and dependent variable.

3.8. Limitations

The following limitations may encounter during the process of data collection:

Availability of respondents was a constraint because some time some of them may be busy and refuse to respond. The process of distributing questionnaire was very tiresome and expensive to the researchers. Biased respondents were another limitation to the researchers. This is because some respondents in the interview may give wrong information or even refuse to give any information.

3.9 Ethical considerations

Researchers conducted a research in BRALIRWA PLC ethically where firstly apply for authorization of conducting research in this company, secondly respect the confidentiality in research respondents, and not harm the participants in the research concern. Also the participants of this research participated voluntary. On the other side researchers gave each respondents a letter explaining the nature of the research project, the letter also assured respondents the confidentiality of the information as well as guaranteeing their anonymity.

CHAPTER 4: PRESENTATION OF THE FINDINGS

This chapter involves the data gathered from the field, analysis and its interpretation. The data gathered was mainly in line with the research objectives and the overall purpose of research which was to investigate the impact of pricing strategies on the performance of manufacturing sector in Rwanda.

Under such tables, a short conclusion related to the effectiveness of pricing strategies applied by BRALIRWA PLC, the performance of BRALIRWA PLC within the period of 2020-2022 as well as the impact of pricing strategies to the financial performance of BRALIRWA PLC is formulated.

4.1 Respondents profile

The tables bellow presents the profile of respondents in terms of age, education level and gender. Therefore, this is to ensure that respondents have a wider knowledge on the information that we were looking for.

Table4.1. Gender of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	43	53.1	53.1	53.1
Valid Female	38	46.9	46.9	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented in the table 4.1 shows that the majority of respondents representing 53.1% are male and 46.9% are female. This means that respondents are dominated by male however there is no much different between their number. Therefore, our findings are accurate since they did not involve one type of gender.

Table4. 2. Age of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than 35	24	29.6	29.6	29.6
Between 35-50	42	51.9	51.9	81.5
Above 50	15	18.5	18.5	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

Looking at the table 4.2 above it is clear that a high rate of respondents representing 51.9% are on the range of 35-50 years old. This is followed by less than 35 years old with 29.6%. Then above 50 years old with 18.5%. Therefore, our results are accurate as the research involves all ranges of age.

Table4. 3. Education level attained

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Bachelor's level	43	53.1	53.1	53.1
Master's	38	46.9	46.9	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

From the table 4.3 above, it was revealed that 53.1% of the total respondents have Bachelor's level, however 46.9% has Masters. None either has PHD or other. This reveals that majority of respondents who responded to the questionnaires were found to have a wider knowledge on the effectiveness of accounting information system in Bralirwa PLC.

Table4. 4. Length of job experience of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than one year	11	13.6	13.6	13.6
1to 3years	27	33.3	33.3	46.9
Above 3years	43	53.1	53.1	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

As shown in table 4.4, responses on the length of job experience by respondents, it can be revealed that the highest number of the respondents have above 3 years of working experience accounting for 53.1% followed by between 1 to 3years and less than one year presenting 33.3%, 13.6 % of the total respondents respectively. As conclusion, the majority of the respondents from the selected department served Bralirwa PLC at least above one year which proves the credibility of information they provide because they really know this company as they served it from the long time ago.

4.2. Effectiveness of Accounting Information System in Bralirwa PLC

The first specific objective of this study was to examine the effectiveness of accounting information systems applied by Bralirwa PLC, and the results are presented under this section.

4.2.1. Compliance with the GAAP

Under this sub-section researchers examined whether the Accounting report of Bralirwa PLC complies with General Accepted Accounting Principles and results are presented under this sub-section.

Table4. 5. Perception of respondent on whether accountant of Bralirwa PLC always respects Principle of regularity

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	45	55.6	55.6	55.6
Valid Agree	36	44.4	44.4	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented above show that the majority of respondents with 55.6% strongly agreed, with 44.4% agreed with this statement. Normally, this is very important because accounting itself is a set of accepted principles, therefore the way an accountant does his/her reporting should follow a widely accepted system. If it did not, no other accountant would be able to understand it. And of course as well all know the information provided by accounting report is useful for various people from the internal to the external. It is through this the regularity principle is necessary so that the information become understandable to all users

Table4. 6. Respondents on whether accountant of Bralirwa PLC always applies Principle of consistency

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	38	46.9	46.9	46.9
Valid Agree	43	53.1	53.1	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The resulted above shows that the majority of respondents with 53.1% agreed that Bralirwa PLC always respects the principle of consistency and 46.9% strongly agreed with this statement. Normally, this principle ensures consistency in the accounting procedures used by the business entity from one accounting period to the next. It allows fair comparison of financial information between two accounting periods. From the researcher's observation, Bralirwa PLC respects the consistent principle in its accounting system because it does not use different accounting

principles for different periods. The consistence is there to allow comparison across different periods and this avoids variances.

Table4.7. Respondents on whether Bralirwa PLC always applies and respects the Principle of sincerity in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	56	69.1	69.1	69.1
Valid Agree	25	30.9	30.9	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

Looking at the results presented in the table above it is clear that the majority of respondents with 69.1% strongly agreed that Bralirwa PLC always respects the principle of sincerity and 30.9% agree with the statement. Normally, the principle of sincerity requires that accountants must be honest (and avoid bias) in the reporting of financial information. In further discussion with interviewers they mentioned that this company's accountant always prepare the accounting report with the main purpose of helping the institutions' manager to make the right decision. Therefore, for them the quality of this information is essential as it leads to the right decision that always boosts the overall performance of this institution. They further more pointed that every year the accounting reports are reviewed and certified by external independent auditor to ensure that they meet all required standard including sincerity.

Table4.8. Respondents on whether Bralirwa PLC always applies and respects the Principle of permanence of methods in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	70	86.4	86.4	86.4
Valid Agree	11	13.6	13.6	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented in the table4.8 demonstrate that 86.4% strongly agreed that Bralirwa PLC comply with the principle of permanence of methods and 13.6% agreed with this. Through the observation of researchers also it is clear that consistent procedures are used in the preparation of all financial reports of this company and this in turn help both internal and external users of the information provided by these reports to easily understand and compare the information of different period.

Table4.9. Respondents on whether Bralirwa PLC applies and respects Principle of non-compensation in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	64	79.0	79.0	79.0
Valid Agree	17	21.0	21.0	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented in the table above show that the majority of respondents with 79.0% of the total respondents strongly agreed that Bralirwa PLC complies with the principle of non-compensation and 21.0% agreed with the statement. In further discussion with interviewers researchers realized that the company apply this principle with the main purpose of providing a thorough and comprehensive accounting of all debts and assets. This prevents businesses from using assets to offset debts (or vice versa) in their financial statements. And through researchers analysis on the financial reports of this company, researchers realized that all aspects of an

organization's performance, whether positive or negative, are fully reported with no prospect of debt compensation. In further discussion with respondents they also mentioned that the financial report of this company always clarify both negative and positive financial situation of this company. And for them these are useful information to the internal users as well as external users of financial information through to how it guides them in their decision. Internally this helps the management to understand the strength of the company and weakness in term of financial situation and guide them in decision regarding to what to reinforce and what to maintain to ensure the proper functioning of this company. On the other side these help external users like investors and banks to understand the situation of the company so that they can work with it in transparency. Therefore, this is good for the company like Bralirwa PLC that is registered at Rwanda stock exchange where the door is open for every investor. Also the company may need fund from bank or any other fund and of cause this principle helps the fund to trust the request of Bralirwa PLC.

Table4.10. Respondents on whether Bralirwa PLC always applies and respects Principle of prudence in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	44	54.3	54.3	54.3
Valid Agree	37	45.7	45.7	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results above show that the majority of respondents with 54.3 % strongly agreed that Bralirwa PLC always comply with the principle of prudence and 45.7% agreed with the statement. In further discussion with interviewers, researchers revealed that the company respects this principle with the main purpose of ensuring that income and assets are not overstated in financial statements. Alternatively known as the conservatism principle, it also makes sure that liabilities are not understated and provisions are made for income and losses. Normally, the prudence principle is a key accounting principle that makes sure that assets and income are not overstated, and provision is made for all known expenses and losses whether the

amount is known for certain or just an estimation. By applying this concept there is less change of companies to overstate their own financial health. It helps the stakeholders take an informed financial decision and predict the future prospects of the business. However, businesses should not use it to hide any kind of information or distort it in the process.

Table4.11. Respondents on whether Bralirwa PLC always applies and respects Principle of continuity in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	74	91.4	91.4	91.4
Valid Agree	7	8.6	8.6	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

Looking at the results presented in the table above, it is clear that almost all respondents with 91.8% and 8.2% of the total respondents agreed with this. Normally, through this principle the company always conducts a valuation of its assets to determine the value of a specific property, including stocks, options, bonds, buildings, machinery. This is done to ensure that the company will be able to replace a depreciated one with the main purpose of ensuring the continuity of business operation. Through the researchers observation what we cannot is that the reports of this company always provide the information on the value of its assets as well as the depreciation of the fixed assets. In further discussion with respondents, researchers realized that these information helped the management of this company to decide on when exactly to acquire the new assets to ensure the effective functioning of Bralirwa PLC and this of course contribute to the overall performance of this company.

Table4.12. Respondents on whether Bralirwa PLC always applies and respects Principle of periodicity in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	46	56.8	56.8	56.8
Valid Agree	35	43.2	43.2	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The majority of respondents with 56.8 % strongly agreed that Bralirwa PLC comply with the principle of periodicity and 43.2% agreed with this. Normally the periodicity assumption, or time period assumption, is an important concept in accounting that allows businesses to categorize their transactions into distinct periods of time. This assumption is necessary in order for businesses to generate accurate financial statements. In further discussion with the interviewers as well as through the observation on the financial report of this company what researchers realized is that Bralirwa PLC's financial report are produced and published quarterly and each quarter compare the present situation with the situation in the same period of the previous year. This is very important for the management decision because it enable them to clearly understand whether there were any positive trend or if is negative and decide what they can do to improve the situation is wrong or what to do with the main purpose of keep up the situation is good. Therefore, this proves that the company under study applied accounting information system effectively and understands the usefulness of the principle of periodicity.

Table4.13. Respondents on whether Bralirwa PLC always applies and respects Principle of materiality in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	36	44.4	44.4	44.4
Valid Agree	45	55.6	55.6	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented in the table above shows that the majority of respondents with 55.6% agreed that Bralirwa PLC always comply with the principle of materiality and 44.4% strongly agreed with the statement. Normally the materiality concept of accounting is an accounting practice. It directs an informed decision-maker to consider an item's relevance or significance. The concept of materiality in accounting governs how one recognizes a transaction. This concept states that we shouldn't record transactions with minimal significance. Therefore, this is very important in the management of Bralirwa PLC as it guide the management to make the right decision to ensure the overall performance of this company.

Table4.14. Respondents on whether Bralirwa PLC always applies and respects Principle of utmost good faith in its accounting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	66	81.5	81.5	81.5
Valid Agree	15	18.5	18.5	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented in the table above clearly prove that almost all respondents with 81.5% of the total respondents strongly agreed that the Bralirwa PLC always comply with the principle of utmost good faith and 18.5% agreed with this statement. In further discussion with interviewers the pointed that the company clearly know that the right information lead to the right decision. Therefore, whenever the company prepares accounting report the accountant take into consideration truthiness issues. This on the other side is ensured by both internal and external auditors. Through the researchers' observations also it was revealed that the auditors' report doesn't find fraud in the financial report of this institution. Therefore, this prove ho Bralirwa respect the principle of utmost good faith whenever providing the financial information in reports. Normally, the doctrine of utmost good faith provides general assurance that the parties involved in a transaction are truthful and acting ethically. Ethical transactions include assuring all relevant information is available to both parties during negotiations or when amounts are determined.

4.2.2. The information provided by Bralirwa Accounting reports

Under these sub-section researchers presents the findings on the information provided by Bralirwa PLC accounting reports to the users.

Table4.15. Respondents on whether Bralirwa PLC’s accounting provides enough information company’s liquidity

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	49	60.5	60.5	60.5
Valid Agree	32	39.5	39.5	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented in the table above shows that the majority of respondents with 60.5% strongly agreed that Bralirwa PLC’s accounting provides enough information company’s liquidity and 39.5% agreed with this statement. Normally, the information on institution’s liquidity is very important because it help the management of the company to clear know whether its currently assets are effectively managed. In further discussion with interviewers researchers realized that finance team of this company always analysis liquidity situation of the company through the information provided by financial position of the company and provide the information to the management team of Bralirwa PLC. In the interview with one management members he pointed that these information are very important in their decision as it guide them in deciding how they can reinforce their working capital management. Therefore, this show how effective the AIS is in Bralirwa PLC as well as how it boost the overall performance of the company.

Table4.16. Respondents on whether Bralirwa PLC's accounting provides enough information on company's profitability

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	44	54.3	54.3	54.3
Valid Agree	37	45.7	45.7	100
Total	81	100.0	100.0	

Source: Primary data, August 2023

Looking at the table above it is clear that 54.3% of the total respondents strongly agreed that Bralirwa PLC's accounting provides enough information on company's profitability and 45.7% agreed with the statement. Referring to the information presented in the income statement of this company as well as its financial position. It is clear that both internal and external users have the access on the information that can guide them to understand the profitability of this company through the analysis of the profitability ratios. Back to the relationship between accounting information system and performance of this bank, the profitability information help the decision maker to understand whether its business is enough profitable or not, so that they can think on what cause the existing situation so that the company can decide on what to reinforce to keep up the profitability of the company. Either if the maximization of companies expanses management is needed, or any other things that can stimulate the profitability of Bralirwa PLC.

Table4.17. Respondents on whether Bralirwa PLC's accounting provides enough information on company's leverage situation

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	66	81.5	81.5	81.5
Valid Agree	15	18.5	18.5	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The table above shows that 81.5% of the total respondents strongly agreed that Bralirwa PLC's accounting provides enough information company's leverage situation and 18.5% agreed with the statement. In further discussion with respondents researchers realized that the information on

leverage situation of this company help the management to identifying the Financial Risks of the Company. This mostly helps the management of Bralirwa PLC to understand company's debt situation and whether they can manage their outstanding debt as well as the debt servicing costs, such as interest. One of the management team member pointed that the information provided on the leverage situation of the company enable them detect whether they have a high debt-to-equity ratio which indicates that a company has vigorously funded its growth with debt or whether it has low debt. Therefore, this help the management to keep enough liquidity to handle the periodical loans repayment to avoid any unnecessary interests resulted by late payment.

Table4.18. Bralirwa PLC's accounting provides enough information on company's market value situation

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	38	46.9	46.9	46.9
Valid Agree	43	53.1	53.1	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The results presented in the table above clearly shows that the majority of respondents with 53.1% agreed that Bralirwa PLC's accounting provides enough information on company's market value situation and 46.9% agreed with this. In further discussion with interviewers, what researchers realized is that this information enables the company to predict the customer's preference and helps in improving customer experience. The process of collecting market information begins with a complete and clear understanding of the marketplace. This understanding includes the customer's wants and needs.

4.2.3. The quality of information provided by the Bralirwa PLC's accounting report

The quality of information provided by accounting reports of Bralirwa PLC indicates its accounting information system. Therefore, under this section researchers analyzed the quality of these information and results are presented below.

Table4.19 Respondents on whether accounting report of Bralirwa PLC provides accurate information to the users

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	56	69.1	69.1	69.1
Valid Agree	25	30.9	30.9	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The majority of respondents with 69.1% of the total respondents strongly agreed that accounting report of Bralirwa PLC provides accurate information to the users and 30.9% agreed with this statement. Normally, the transparency, accurate and timely financial reporting provides to the management of the company is beneficial in many ways. Financial statements can be used to verify the accuracy of any accounting discrepancies, mitigate errors by providing a better understanding of how expenditures should have been spent on certain areas as opposed to what has actually been spent on those areas, evaluate tax liability obligations, and establish trust with stakeholders. Accuracy of the information can go a long way towards alleviating skepticism from investing in organizations and helps to increase profitability by providing an understanding of how the company operates, which in turn helps shareholders make more informed decisions about their investments.

Table4.20. Respondents on whether accounting report of Bralirwa PLC provides reliable information to the users

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly agree	70	86.4	86.4	86.4
Valid Agree	11	13.6	13.6	100.0
Total	81	100.0	100.0	

Source: Primary data, August 2023

The information presented in the table above shows that the majority of respondents with 86.4% strongly agreed that accounting report of Bralirwa PLC provides reliable information to the users and 13.6% agreed with this. In further discussion with interviewers what researchers realized is that the accounting report of this company always provides up-to-date and reliable records which in turn help users to compare current financial information to historical data. With full, consistent, and accurate records, it enables users to assess the performance of a company over a period of time. Normally, the importance of using reliable sources truly boils down to effective communication. If your knowledge is based on unreliable information you will not be a trustworthy asset to your company. Credible communication is key in business success and that is why you should not just grab any information off the internet.

4.3 The performance of BRALIRWA PLC within the period of 2020-2022

The second specific objective of this study was to assess the performance of Bralirwa PLC. And results are presented below.

4.3.1 Evolution of turnover of BRALIRWA PLC

The turnover is the stock of goods sold and restocked during a given period of time, turnover is sometimes a synonym of sales, is also services sold by a company during a particular period of time. Turnover is sometimes the name for a measure of how quickly inventory is sold. A high turnover means that goods are sold quickly, while a low turnover means that goods are sold more slowly. Therefore, the table below presents how it is in BRALIRWA PLC and assess if it has a link with applied pricing strategies.

Table4. 21. Evolution of turnover of BRALIRWA PLC 2020-2022(000, Rwf)

Years	Turnover (000Rwf)	Trend rate (%)
2020	100,521,000	-
2021	123,596,000	22.96
2022	157,656,000	27.56

Source: Financial statements of BRALIRWA PLC, 2020-2022

The researchers were interested in knowing the rate of increase of BRALIRWA's turnover. This could help the researchers to draw conclusion and give recommendations on performance improvement in this company as a result of effective pricing strategies. And it is clear that BRALIRWA's turnover increased by 22.96% in 2021 and by 27.56% in 2022. Normally this is a very considerable increase and AIS is one of the main factors behind this considerable positive trend. Normally the reliability and accuracy of the information provided by accounting report in Bralirwa PLC enable the management team of this company to make the right decision in every corner on the institution including the investment decision and these related to the liquidity management. Therefore, there is no doubt this in turn contribute to the overall performance of Bralirwa PLC.

4.3.2. Evolution of Bralirwa PLC's net result

The final results after all the assets and liabilities have been balanced. The net result is the main indicator of performance. The following table shows the evolution of net result of BRALIRWA PLC during the covered period.

Table4. 22. Evolution in net income of Bralirwa PLC in 2020-2022

Years	Net results (000Rwf)	Rate of evolution (%)
2020	9,005,000	-
2021	17,525,000	94.61
2022	22,545,000	28.64

Source: Financial statements of BRALIRWA PLC, 2020-2022

Looking at the table above it is clear that net result have been increased by 94.61% in 2021as and by 28.64% in 2022. Normally, the net results show how Bralirwa. PLC minimizes the charges. Because the net result of company necessitate the level of cost engaged. But all them mainly

influenced by the right decision made by the management of this company basing on the information provided by accounting reports. It was also observed that accounting information system in this company inform the management of this company the issues of expenses which in turn help them to improve the effectiveness on how are managed to ensure that the company at the end retain a considerable net profit. Therefore, this shows how well the Accounting information system supports the financial performance of Bralirwa PLC.

4.3.3. Evolution in earnings per share

The companies present basic and diluted earnings per share data for its ordinary shares. Basic earnings per share is calculated by dividing the net profit or loss attributable to ordinary shareholders of the company by the weighted average number of ordinary shares outstanding during the year. The weighted average number of ordinary shares outstanding during the period and for all periods presented is adjusted for events that have changed the number of ordinary shares outstanding without a corresponding change in resources. Therefore, here researchers want to examine evolution in earning per shares in the bellow table with the main purpose of knowing whether Earning Per Share (EPS) vary positively or not as well as finding out it relationship with Accounting information system.

Table4. 23. Evolution in earnings per share

Year	EPS	Trend of EPS	Rate of Trend in EPS (%)
2020	8.75	-	-
2021	17.03	8.28	94.63
2022	21.91	4.88	28.66

Source: BRALIRWA PLC's annual report 2020-2022

Looking at the results presented in the table above, BRALIRWA PLC had been able to earn in the period of our study where it earning per share increased by 94.63% in 2021 and by 28.66% in 2022. This means that shareholder of this company were in happiness within this period because its earnings increased every year. Back to the contribution between this evolution in EPS and applied Accounting Information System, it is clear that earning per share depend on what the company earned as profit in the period. However this also would be boosted by the how the

expenses are effectively managed through the information provided by the accounting report and the right decisions made basing on these information.

4.3.4 Evolution of equity

The table below shows the evolution of equities at BRALIRWA PLC during the period of study.

Table4. 24. Evolution of Equities of BRALIRWA PLC (000, Rwf)

Years	Equities (000Rwf)	Rate of evolution (%)
2020	42,587,000	-
2021	51,113,000	20.02
2022	56,141,000	9.84

Source: BRALIRWA PLC's annual report 2020-2022

Through the data collected to the BRALIRWA PLC, the equities increased by 20.02% in 2021 and 9.84 in 2022. The equities of Bralirwa. PLC comes from the social capital, the reserves and net income. The equities of Bralirwa PLC come from the social capital, the reserves and net income. The equities show the financial means of company without considering the external resources like loans and others. Therefore we can not ignore that this continuous evolution of equity in BRALIRWA PLC has a strong relation with the effective accounting information system because one of the source of found that boost the company's equity is the retained earnings. And of course the retained earnings are there because of how the company was able to effectively manage its sales, the way by which it spends through the effective accounting information.

4.3.5 Ratios analysis

Analysis and interpretation of accounting ratios provide a skilled experienced analyst, a better understanding of the financial conditions and performance of the firm than what he could have obtained only through a perusal of financial statements. Therefore, in this section researcher has analyzed the performance of Bralirwa PLC.

4.3.5.1 Gross Profit Margin

The gross profit margin looks at cost of goods sold as a percentage of sales. This ratio looks at how well a company controls the cost of its inventory and the manufacturing of its products and subsequently passes on the costs to its customers. The following table shows the Gross Profit Margin of Bralirwa PLC during our period of study

Table4. 25. Gross Profit Margin

Year	2020	2021	2022
Net income (1)	9,005,000	17,525,000	22,545,000
Turnover (2)	100,521,000	123,596,000	157,656,000
Gross Profit Margin in %(1/2)	8.96	14.18	14.30

Source: Financial statements of BRALIRWA PLC, 2020-2022

From 2020 up to 2022 the ratios of gross profit margin were 8.96%; 14.18% and 14.30% respectively. This means that in 2020 for RWF 100 of sales, it has got RWF 8.96 and in 2021 for 100 RWF, the company got RWF 14.18 and in 2022 for 100 RWF, the company got RWF14.30. Normally these prove that Bralirwa has been able to manage well its investment during the covered period. And this does not happen accidentally; it depends on the right information made by management team of the company basing on the accurate and reliable information provided in the accounting report of this company.

4.3.5.2 Return on Assets “ROA”

The return on assets ratio is a profitability ratio which is a returns ratio. The return on assets ratio is also called the return on investment ratio. Return on assets allows the business owner to calculate how efficiently the company is using their total asset based to generate sales. Total assets include all current assets such as cash, inventory, and accounts receivable in addition to fixed assets such as plant and equipment.

Table4. 26. Return on Assets “ROA”

Year	2020	2021	2022
Net income (1)	9,005,000	17,525,000	22,545,000
total assets (2)	127,271,000	116,409,000	155,989,000
Return on Assets(1/2)	7.08	15.05	14.45

Source: Financial statements of BRALIRWA PLC, 2020-2022

The table above shows the Return on Assets ratio during the covered period. From 2020 up to 2022. The ratio of Return on Assets are 7.08 %; 15.05% and 14.45% respectively. This means that, in 2020 for 100 RWF invested the BRALIRWA got RWF 7.08; in 2021 for 100 RWF invested it has got RWF 15.05 and the and in 2022 for 100 RWF invested it has got RWF 14.45. The above result, show that BRALIRWA PLC, is profitable during the covered period. Because the standard ratio of Return on Assets is 1%. And the above results show that all ratios within the period under study are greater than 1% which indicates that the company is in good position of profitability according to Jilly, (2016). Many factors can be the causes of that profitability but here the effective Accounting Information System have has been found as the most important factor to increase of it profitability because you can have enough asset and produce very wonderful product but if you do not make the right information in the management of all these you automatically fail, and of course these right decision in this company are based on the clear and accurate information provided in the accounting reports of Bralirwa PLC.

4.3.5.3 Ratio of Return on Equity (in thousands Rwf)

Return on equity (**ROE**) measures the rate of return on the ownership interest of the common stock owners. It measures a firm's efficiency at generating profits from every unit of shareholders' equity. ROE shows how well a company uses investment funds to generate earnings growth.

Table4. 27. Ratio of Return on Equity (in thousands Rwf)

Year	2020	2021	2022
Net income	9,005,000	15,525,000	22,545,000
Stockholder's Equity	42,587,000	51,113,000	56,141,000
Return on Equity	21.14	30.37	40.16

Source: Financial statements of BRALIRWA PLC, 2020-2022

The table above demonstrates the image of return on equity ratio in BRALIRWA PLC from 2020 up to 2022. It is very important for any shareholder because it measures the return on the money they have put into the company. Even new investors are interested on this, it is the ratio potential investors look at when deciding whether or not to invest in the company.

From 2020 up to 2022 the ratio of Return on Equity are as following: 21.14%; 30.37% and 40.16% respectively. This means that, in 2020 the 100 RWF invested in BRALIRWA PLC, generated 21.14RWF and in 2022 the 100 RWF invested in BRALIRWA PLC, generated 40.16 RWF. Normally the above ratios demonstrate that within this period BRALIRWA's stockholders were in period of happiness during the period of our study since the average of income generated by their equity shows that for each 100 Rwf they invest they gain at least 30.56 Rwf. Therefore it is observed that Accounting information system is the most important boosting factor to this performance because the return on the invested equity depend on the effective management of the overall business' operation and of caused this was supported by the information and update provided by the accounting report to the management which in turn guide the right decisions of the management team on the investment management.

Table4. 28. Liquidity ratios analysis

Liquidity ratios		2020	2021	2022
		(Frw, 000)	(Frw, 000)	(Frw, 000)
Current Ratio	Current assets(1)	38,011,000	29,290,000	51,780,000
	Current liabilities(2)	68,878,000	51,739,000	22,421,000
	1/2	0.55	0.57	2.31
Quick Ratio	Current assets – inventory(1)	18,048,000	9,815,000	19,254,000
	Current liabilities(2)	68,878,000	51,739,000	22,421,000
	1/2	0.26	0.19	0.86
Cash Ratio	Cash + cash equivalents + marketable securities(1)	4,957,000	5,618,000	16,245,000
	Current liabilities(2)	68,878,000	51,739,000	22,421,000
	1/2	0.07	0.11	0.72

Source: Financial statements of BRALIRWA PLC, 2020-2022

The table above demonstrate that current ratio were 0.55; 0.57 and 2.31 respectively from 2020-2022. Normally, this shows that current ratio of the observed periods is generally very low because there almost all them are less than the minimum required level of 1.0 to employ an aggressive strategy of working capital control except in 2022. This means that the situation is worse because current assets are not able to cover current liabilities. The company might incur delay charges from its inability to meet its short-term obligations. Therefore, these information are essential to the management of Bralirwa PLC because it remind them to reinforce its liquidity management.

Results above also demonstrate that quick ratios were 0.26; 0.19 and 0.86 respectively from 2020-2022. All observed periods have a quick ratio which are less than the minimum required ratio of (1). This indicates a difficulty for the company covering its liabilities for that period without liquidating inventories.

It is also clear that Cash Ratio were 0.07; 0.11 and 0, 72 respectively from 2020-2022. In the case of cash ratio, the company's results for the examined periods are not encouraging. The closest cash ratio came to the optimum recommended value (0.2) was in 2022. The situation was especially bad in the remained years as are far from the minimum required ratio. It takes longer to convert inventories into money to pay bills and the company should be aware of that fact. The value here is negative because the company overdrew on its bank accounts.

Table4. 29. Leverage Ratios analysis

Leverage Ratios		2020(Frw, 000)	2021(Frw, 000)	2022(Frw, 000)
	Total debt (liabilities)(1)	84,684,000	65,296,000	99,847,000
Debt to Asset Ratio	Total assets(2)	127,271,000	116,409,000	155,989,000
	1/2	0.67	0.56	0.64
	Total debt (liabilities)(1)	84,684,000	65,296,000	99,847,000
	Equity(2)	42,587,000	51,113,000	56,141,000
Debt to equity ratio	1/2	1.99	1.28	1.78
	Total assets (1)	127,271,000	116,409,000	155,989,000
Equity Multiplier Ratio	Equity(2)	42,587,000	51,113,000	56,141,000
	1/2	2.99	2.28	2.78

Source: Financial statements of BRALIRWA PLC, 2020-2022

The table above demonstrate that Debt to Asset Ratio were 0.67; 0.56 and 0.64 respectively from 2018-2022. Therefore, for the examined periods the debt to asset ratio fluctuates but is always above the 50%. This means that a higher percentage of Bralirwa assets can be claimed by its creditors. And this translates into higher operational risk as financing new projects will get difficult.

Debts to equity ratio were 1.99; 1.28 and 1.78 respectively from 2020-2022. This indicates that more debt is used to fund this company than equity. On the other side this ratio has an increasing trend in the beginning and decreasing trend at the end. This is due to the debts incurred as a result of the borrowing of money for the expansion project and as the loans get paid off equity grows and the ratio becomes smaller.

Also the Equity Multiplier Ratio were 2.99; 2.28 and 2.78 respectively from 2020-2022. The equity multiplier for all examined periods was averaging about 2.68 assets to every 1.00 equity. Which means that Bralirwa PLC use more debt rather than equity for its financing. And this would bring higher costs because of interest incurred.

4.5. Relationship between AIS and financial performance of Bralirwa PLC

The main purpose of the study was to find out the contribution of accounting information system on the performance of Bralirwa PLC and the results are presented in the following section.

Table4. 30. Correlations between AIS and Performance of Bralirwa PLC

		AIS	Performance of Bralirwa PLC
AIS	Pearson Correlation	1	.821*
	Sig. (2-tailed)		.012
	N	81	81
Performance of Bralirwa PLC	Pearson Correlation	.821*	1
	Sig. (2-tailed)	.012	
	N	81	81

*. Correlation is significant at the 0.05 level (2-tailed).

The findings from table above indicated that there is a positive correlation between Accounting Information System and performance of Bralirwa PLC during the period of the study. This is indicated by the value of Pearson coefficient of correlation (.821) which is positive and strong. The value of P-value (.012) which is less than the level of significance 5%, this is evidence that the correlation is statistically significant. This implies that increase in effective AIS leads to a positive increase in performance of Bralirwa PLC.

CONCLUSION AND RECOMMENDATIONS

Conclusion

After observing all findings what researchers can note here is that accounting information systems applied by Bralirwa PLC is effective. This is proved by how accounting complies with the GAAP where the majority of respondents with 55.6% strongly agreed with this statement and 44.4% agreed with this. It is also observed that 53.1% agreed that Bralirwa PLC always respects the principle of consistency and 46.9% strongly agreed with this statement. Also, the majority of respondents with 69.1% strongly agreed that Bralirwa PLC always respects the principle of sincerity and 30.9% agree with the statement. On the other side researchers realized that 86.4% strongly agreed that Bralirwa PLC comply with the principle of permanence of methods. It is also observed that the majority of respondents with 79% of the total respondents strongly agreed that Bralirwa PLC comply with the principle of non-compensation and 21% agreed with the statement. Also almost all respondents with 91.4% and 8.6% of the total respondents agreed with this. Researchers also revealed that 56.8% strongly agreed that Bralirwa PLC comply with the principle of periodicity and 43.2% agreed with this. On the other side 55.6% agreed that Bralirwa PLC always comply with the principle of materiality and 44.4% strongly agreed with the statement.

Regarding the information provided by financial analysis in Bralirwa PLC results show that the majority of respondents with 60.5% strongly agreed that Bralirwa PLC's accounting provides enough information company's liquidity. Also, 54.3% of the total respondents strongly agreed that Bralirwa PLC's accounting provides enough information on company's profitability and 45.7% agreed with the statement. On the other side researchers revealed that 82% of the total respondents strongly agreed that Bralirwa PLC's accounting provides enough information company's leverage situation. It was also observed that 53.1% agreed that Bralirwa PLC's accounting provides enough information on company's market value situation. On the issues of the quality of information provided by the Bralirwa PLC's accounting report, researchers realized that the majority of respondents with 69.1% of the total respondents strongly agreed that accounting report of Bralirwa PLC provides accurate information to the users. It was also observed that the majority of respondents with 86.4% strongly agreed that accounting report of Bralirwa PLC provides reliable information to the users and 13.6% agreed with this.

The financial performance of Bralirwa PLC within the period of 2020-2022 also was analyzed and results demonstrated that from 2020 up to 2022 the ratios of gross profit margin were 8.96%; 14.18% and 14.30% respectively. This means that in 2020 for RWF 100 of sales, it has got RWF 8.96 and in 2021 for 100 RWF, the company got RWF 14.18 and in 2022 for 100 RWF, the company got RWF14.30. The ratio of Return on Assets is 7.08 %; 15.05% and 14.45% respectively. From 2020 up to 2022 the ratio of Return on Equity are as following: 21.14%; 30.37% and 40.16% respectively. Therefore, referring to the findings we reject $H1_0$ in favor of $H1_1$ which means that accounting information system applied by Bralirwa PLC is effective.

The relationship between two variables also were assessed and results on correlation matrix shows that the value of Pearson coefficient of correlation (.821) which is positive and strong. The value of P-value (.012) which is less than the level of significance 5%, this is evidence that the correlation is statistically significant. This implies that increase in effective AIS leads to a positive increase in performance of Bralirwa PLC. Therefore, we conclude by saying that $H2_0$ is to be rejected in favor of $H2_1$ which means that accounting information system applied by Bralirwa PLC contributes to its performance.

Recommendations

Based on the both theoretical and analytical study, we have found some problems related to the use of AIS and Decision-Making. Here, we have provided some recommendations and suggestions on the use of AIS and Decision Making that are given below:

- The study strongly recommends that there is a significant positive relationship between AIS and performance of Bralirwa PLC. Therefore, Manufacturing and service companies in Rwanda should use AIS to improve the accuracy of their all sort of organizational decision such as strategy decision, HRM decisions (HR policies, promotion, transfer and retrenchment), Marketing decision (selling, marketing strategy, promotional policies etc.), investment decision (capital raising, borrowing, liquidation and dividend payment).
- Another recommendation should be imposed based on this study which is, all the department of an organization should enjoy the benefits of computer-based AIS especially accounting department to ensure that all the financial information that are provided to managers or decision makers are comprehensible, reliable, free from error and unbiased.

Suggestions for further research

The scope in terms of content of this study was focused on the Accounting Information System and Performance of Manufacturing companies in Rwanda, the cases of Bralirwa PLC. However the following topics are recommended to further researchers:

1. The contribution of Accounting information system on decision making in manufacturing companies
2. The effect of accounting information system (AIS) on the productivity of financial institutions in Rwanda.

References

- Adenike. (2019). *Accounting Information Systems and Decision Making*. European Journal of Accounting, Auditing and Finance Research, 66-74.
- Afunadula. (2018). *Current Mortality Rate of SME's will Kill Private Sector*. . Retrieved from PML Daily.
- Algrari. (2021). *The impact of Accounting Information Systems'*. Quality on Accounting Information Quality. , 10-20.
- Alnajjar, M. (2019). *Impact of accounting information system on organizational performance: A study of small and mid-sized enterprises in UAE*. International journal of accounting research, 4, 29-30.
- Alqatnani, K. M. (2022). *"Impact of the use of accounting information on performance Managing industrial corporations operating in Jordan,*. Unpublished Master Thesis, Al Al-Bayt University.
- Alqtauna. (2020). *Impact for use of information technology on the effectiveness of the system Accounting information*. Jordan. : unpublished thesis, Arab Academy for Banking and Financial Sciences.
- Bodnar, G. (2016). *Accounting Information Systems (11th ed.)*. New Jersey:: Pearson.
- Bulijubasic, E. (2017). *Impact of Accounting Information Systems on Decision Making*. *European Researcher*,, 460-469.
- Curtis, G. (2019). *Financial Accounting Standard Board. (unk.) FASB Accounting Standards Codification*. Wokingham:. Addison-Wesley Publishing Company. .
- Cheung, E. (2020). An historical review of quality in financial reporting in Australia. *Pacific Accounting Review*, , (0114-0582).
- Choe, J. (2020). The Relationships among performance of accounting information systems, influence factors, and evolution level of information systems . *Journal of Management Information Systems*, 12(4),, 215-239.

- Coll and Bernard (2012). *relationship between profitability ratios and stock prices: an empirical analysis on BIST*. Istanbul Finance Congress.
- DeLone, W. H. (2019). Model for Information Systems Success. . *Journal for Information Management Systems*, , 9-30.
- Downen, T. (2019). Defining and Measuring Financial Reporting Precision. *Journal of Theoretical Accounting Research*, Vol. 9, No. 2,, pp 21 - 57.
- Emad. (2017). *Accounting Information Systems for Decisions-making: Concepts and Applications "*, Translated by Kamal A-Din and Said Ahmed Hajjaj,. Riyadh, Saudi Arabia.: Dar Almarekh for Publishing.
- Emad, H. (2017). Accounting Performance of SMEs and Effect of Accounting. . *Global Journal of Management and Business Research*,, 20-26.
- Esmeray, A. (2021). The Impact of Accounting Information Systems on Firm Performance . *International Review of Managemntent and Marketing*, , 233-236.
- Fagbemi, T. O. (2017). An Evaluation of Accounting Information Systems and Performance of Small Scale Enterprses. . *Africa Management Review*, , 1-16.
- Fontinelle, A. (2019). *Introduction to Accounting Information Systems*. Retrieved April 3, 2019, from Investopia:.
- Gajevszky, A. (2018). Assessing financial Reporting Quality: Evidence from Romania. . *Audit Financiar*, 1583-1584.
- Gavrea, C. (2017). Determinants of Organizational Performance. . *Managemnt and Marketing Challenges for the Knowledge society*, , 285-300.
- Gibson, P. (2020). *Research methodology* . F.E Peacock Publishers, Inc, Itasca, Illinois.
- Grinner, G. (2016). *Research Methods: Quantitative and Qualitative Approaches*. . Nairobi: Acts Press.
- Gupta. (2019). Accounting Information Systems (AIS) and Knowledge Management: A Case Study. *American Journal of Scientific Research*, 4, , 36-44.

- Harash. (2019). The influence of Accounting Information Systems (AIS) on performance of Small and Medium Enterprises (SMEs) in Iraq. *Journal of business management*, 3, 48-57.
- Hunton. J. (2020). Soliciting user-input during the development of an accounting information system: Investigating the efficacy of group discussion. *Account. Organ. Soc.*, 597–618.
- Indira. (2018). *Accounting information system satisfaction and job satisfaction among Malaysian accountants. Proceedings of the Pacific Asia Conference on Information Systems, Volume 54, December 2003*, . AIS Electronic Library.
- Ismail, A. (2020). *The Impact of Information Technology on Performance: The Mediating Role of Management Accounting Systems*.
- James. (2017). *Implementation of an Electronic Hospital Information System in a Developing country: A case study of Pakistan, masters Dissertation* . Amnaan University.
- Judijanto. (2013). *Financial statements Analysis: A Practitioner's Guide*. New York: John Wiley.
- Kenneth. (2018). Adopting and refining e-services-The role of organization size. *Public Organization Review*, 18, , 111-123.
- Kimuda. (2019). Interrelated Factors Influencing the Adoption Decision of AIS Applications by SMEs in Jordan. *International Business Research*, 9 (10), , 46- 62.
- Kothari, C. (2017). *Research Methodology: Methods and Techniques, 2nd ed.*, . New Delhi.: New Age. Publications, .
- Kuada, K. (2016). *Quantitative Research Methods In Educational Planning, Sample Design For Educational Survey Research*. London: International Institute For Educational Planning.
- Kungu. (2015). Performance measurement of Taiwan Commercial Banks. *International Journal of Productivity and Performance Management*, , 41-50.

- Lassala(2017). "An empirical investigation of the impact of financial ratios and business combination on stock price among the service firms in the Philippines." *Academy of Accounting and Financial Studies Journal*, 20(2), 104–116.
- Marivic. (2019). Ismail, A., &Zin, R. (2009). Usage of accounting information among Malaysian Bumiputra small and medium nonmanufacturing firms. *J. Enterprise Resour. Plan. Stud.*, 24-26.
- Meiryani. (2017). Influence of Top Management Support on the Quality of Accounting Information System and Its Impact on the Quality of Accounting Information. . *Research Journal of Finance and Accounting*, 5 (11), , 124-132.
- Neuman, D. (2017). *Ethical Considerations In Research*. . New York: Belmont.
- Pincus. K. (2021). *Core Concepts of Accounting Information” University of southern California, 2nd editionModule 2, p.19*. California: McGraw- Hill, Inc.
- Romney, M. (2019). *Business Research Methods.Third Edition*. . New York: McGraw- Hill.
- Saunders. (2017). *Research Methodology: Methods and techniques. 2nd Revises Ed*. .New Age International.
- Siklos, K. (2018). *Social Research Methods, 3rd Ed*. . Oxford: Oxford University Press.
- Themistocleous. (2019). “Benchmarking the benefits and barriers of application integration”, benchmarking: . *An International Journal*, Vol. 8 No. 4, , 317-31.
- William. (2021). Factors influencing the alignment of accounting information systems in small and medium sized Malaysian manufacturing firms. *Journal of Information System and Small Business*, 1,, 1-20.
- Woo. H. (2017). “Critical success factors for implementing ERP: the case of a Chinese electronic manufacturer. *Journal of Manufacturing Technology*, Vol. 18 No. 4, pp., 431-432.
- Younes, B. (2022). The impact of ERP system on user performance: An exploratory study. . *Journal of Theoretical and Applied Information Technology*,, 325-342.

Appendices

Questionnaire

We, MUZIGA Christine and BAGWANEZA Peninnah, students at KIGALI INDEPENDENT UNIVERSITY (ULK) Kigali campus, School of Economics and Business studies (EBS), Accounting department; we are conducting research on your organization (Bralirwa PLC) with a project entitled “Accounting information system (AIS) to the performance of manufacturing industry in Rwanda. A case of Bralirwa plc (2020-2022)”

The information gathered from you will permit us to come to the end of our research so that we accomplish our bachelor’s studies in school Economic and Business studies and this information will be used for the academic purposes.

Answering this questionnaire well is your great contribution to our research and data will be kept according to national and International considerations of confidentiality.

Instructions

1. This questionnaire has two parts.
2. You are requested to provide the correct answer to the question.
3. Where applicable, tick the sign to the relevant option.

Section A: General question

1. Gender of respondents

• Male

• Female

2. What is the range of your ages(in Years)?

• Less than 30

• 35-50

• Above 50

3. What is your level of education?

- Secondary level
- Bachelor's level
- Master's
- PHD
- Other (Specify).....

4. What is the length of your job experience?

- Less than one year
- 1 to 3 year
- above 3 years

Section B: the effectiveness of accounting information systems applied by Bralirwa PLC

5. To what extent do you agree with the following statements regarding to **compliance with the GAAP?** Using a scale of 5 – 1 tick the appropriate answer from the alternatives provided for each of the questions. **5. Strongly Agree 4. Agree 3. Neutral 2. Disagree 1. Strongly Disagree**

Statement	Rating				
	Strongly agree (5)	Agree (4)	Neutra l(3)	Disagree (2)	Strongly Disagree (1)
Accountant of Bralirwa PLC always respects Principle of regularity					
Accountant of Bralirwa PLC always applies Principle of consistency					
Bralirwa PLC always applies and respect the Principle of sincerity in its accounting					
Bralirwa PLC always applies and respect					

the Principle of permanence of methods in its accounting					
Bralirwa PLC applies and respect Principle of non-compensation in its accounting					
Bralirwa PLC always applies and respect Principle of prudence in its accounting					
Bralirwa PLC always applies and respect Principle of continuity in its accounting					
Bralirwa PLC always applies and respect Principle of periodicity in its accounting					
Bralirwa PLC always applies and respect Principle of materiality in its accounting					
Bralirwa PLC always applies and respect Principle of utmost good faith in its accounting					

6. To what extent do you agree with the following statements regarding **to the information provided by Bralirwa Accounting reports**? Using a scale of 5 – 1 tick the appropriate answer from the alternatives provided for each of the questions. **5. Strongly Agree 4. Agree 3. Neutral 2. Disagree 1. Strongly Disagree**

Statement e	Rating				
	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Bralirwa PLC's accounting provides enough information company's liquidity					
Bralirwa PLC's accounting provides enough information company's					

profitability					
Bralirwa PLC's accounting provides enough information company's leverage situation					
Bralirwa PLC's accounting provides enough information company's market value situation					

7. To what extent do you agree with the following statements regarding **to the quality of information provided by the Bralirwa PLC's accounting report?** Using a scale of 5 – 1 tick the appropriate answer from the alternatives provided for each of the questions. **5. Strongly Agree 4. Agree 3. Neutral 2. Disagree 1. Strongly Disagree**

Statement e	Rating				
	Strongly agree (5)	Agree (4)	Neutral(3)	Disagree (2)	Strongly Disagree (1)
Accounting report of Bralirwa PLC provides accurate information to the users					
Accounting report of Bralirwa PLC provides reliable information to the users					
The information presented in Bralirwa PLC accounting report has transparency					
The information presented in Bralirwa PLC accounting report has a consistency					

To what extent do you agree with the following statements regarding **to the contribution of accounting information system to the performance of Bralirwa PLC?** Using a scale of 5 – 1 tick the appropriate answer from the alternatives provided for each of the questions. **5. Strongly Agree 4. Agree 3. Neutral 2. Disagree 1. Strongly Disagree**

Statement e	Rating				
	Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Bralirwa PLC's Accounting information system helps the company to record a greater ROA					
Bralirwa PLC's Accounting information system helps the company to record a greater ROE					
Bralirwa PLC's Accounting information system helps the company to apply the optimum liquidity management					
Bralirwa PLC's Accounting information system contributes to the overall performance of this company					

Thanks for your participation!

Interview Guide

TOPIC: “the contribution of accounting information system (AIS) to the performance of manufacturing industry in Rwanda. A case of Bralirwa PLC (2020-2022)”.

Respondents’ experience

Respondent’s occupation

- 1) How do you view your company’s efforts to ensure the effective Accounting Information System?
- 2) Is there any strategic plan concerning the effectiveness of the Accounting Information System of your company? If yes how do you think that this contribute to the overall performance of the company?
- 3) Does your company recognise a financial performance within last three years? If yes, Can you please express the relationship between accounting information system and financial performance of Bralirwa PLC?

Thanks for your participation!