Evaluation of the Usage of Management Accounting Practices in KwaZulu-Natal Retail Stores

By

PENUEL BOSWORTH MUNGUSA

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Supervisor: Dr Odunayo Magret Olarewaju

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DECLARATION

I, Penuel Bosworth Mungusa, declare that this dissertation entitled: "Evaluation of the Usage of Management Accounting Practices in KwaZulu-Natal Retail Stores" is my own work and has not been previously submitted for examination to Durban University of Technology or any other higher learning institutions. All sources that I have quoted or used in this dissertation have been indicated and acknowledged by means of complete references.

The research conducted in this dissertation was supervised by Dr Odunayo Magret Olarewaju [PhD, CA(NIG), ACMA, CGMA].

Faculty of Accounting and Informatics, Department of Management Accounting, Durban University of Technology (Durban Campus), South Africa.

Signature _____   Date: **10 November 2021**

Penuel Bosworth Mungusa   Student number: **21555939**

Approved for final submission

Dr Odunayo Magret Olarewaju   Date: 31/03/2022 _____

DEDICATION

I dedicate this research work to The Creator of heaven and earth and Author of all truth, "The Almighty God".

ACKNOWLEDGEMENTS

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MOST EMPLOYED ACRONYMS

MAPs -------> Management Accounting Practices

MA ----------> Management Accounting

KZN ---------> KwaZulu-Natal

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ABSTRACT

The purpose of this study is to evaluate the extent at which the usage of management accounting practices (MAPs) facilitate the flow of information for internal reporting in KwaZulu-Natal (KZN) retail stores. An Organization where management accounting is applied has undergone severe changes in the management and running of its operations. Earlier, many organisations that did not adapt to the changes had undergone liquidation, down-sizing and many others suffered huge irrecoverable losses. In developed countries, researchers confirmed that large number of companies have adapted to these changes brought up with new MAPs; while in contrast, developing countries such as South Africa, Malaysia, India, etc., are still vulnerable to the changes due to the excessive usage of Traditional MAPs and factors hindering the usage of MAPs. In South Africa, there is a lack of considerable studies on the usage of MAPs in the retail industry comparatively to other industries such as small and medium enterprises, manufacturing, etc. And considering the strong aspect of competition within the retail industry, the lack of studies and knowledge provision on the usefulness of MAPs to respond to competitive conditions make this study more essential, unique and a strong contribution to the MA body of knowledge literature. And also many large retail stores dominated by a massive conflict of interests tend not to be progressive strategically and not willing to adapt to the change in the MA and apply its new practices; consequently, instead of really addressing the needs of customers rather they just provide what they think customers needs at higher costs while the usage of MAPs is very essential in this regard. Therefore, this study has covered these issues and filled the gap in the MA body of knowledge by achieving the following objectives, which are: evaluate factors hindering the usage of management accounting practices in KwaZulu-Natal retail stores, evaluate and reveal the management accounting practices used in KwaZulu-Natal retail stores, determine the change effect on the practice of Management accounting in KwaZulu-Natal retail stores and reveal the benefits towards the change in MAPs thereof, and demonstrate the effect of change in the practice of management accounting in improving competitive conditions, financial performance, costs and revenues allocation and sustainable information flow in KwaZulu-Natal retail stores. The researcher administered a total of 105 questionnaires in all 21 sampled retail stores, but only

101 questionnaires were answered (i.e., calculated as 96.2% response rate). This study findings revealed that KwaZulu-Natal retail stores: are being affected by many barriers hindering the usage of MAPs, are not using contemporary management accounting practices as taught in tertiary institutions or universities, but still relying on the usage of many traditional MAPs. It was further found that KZN retail stores are not benefiting enough from the advantages played by contemporary MAPs and the MA change implications in retail stores. In addition, the path coefficient was used to determine the significant relationships existing between the latent variables developed as hypothesis in this study. The study also found that many KZN retail stores do not use proper MAPs to allocate costs or revenues to products or activities; in that same manner, this study suggested and recommended retail stores to use the Activity-based Costing (ABC) system. This study uses four theories, which are: contingency, agency, Porters' Five competitive and stakeholder; in which the mostly applied in this study is the "the contingency theory".

Keywords: barriers to management accounting practices, management accounting practices, Cost-management practices, management accounting change, cost and management accounting

CHAPTER ONE

INTRODUCTION

1.1.   Background to the study

Stead, Eadie, Purves, Moodie and Haw (2018) indicated that the retail industry is among the most competitive and profitable industries for business investors in the world. In a bid to manage a retail store efficiently and effectively, Ishfaq, Gibson and Defer (2016) suggest that retail stores should invest more in technology and business process development. Investing in technology is ensuring quality information flow through technology innovations and solutions in the organization. In that same manner, Baker and Sovacool (2017) are of the view that South African companies as well as all other companies in the world are highly affected by "competition" in their business environments, which has been destabilising their ongoing and sustainable growth. This uncertainty on organizations' sustainable growth and survival had pushed many companies to find ways and solutions capable to respond to competitive conditions, which resulted in the need for usage of strategic cost and management accounting practices (Das Nair, 2018). Despite this need, South African retail stores keep struggling over competition rivalry, and have not succeeded in responding to it because of the exceeding usage of traditional MAPs as observed by Waweru and Uliana (2016).

Traditional MAPs are *cost-management practices* such as: budgeting, planning, forecasting, costing practices, etc. which tend to assist managers in managing organizations in a cost-based control approach rather than impacting the overall organizations' decision-making processes (Baker and Quéré, 2019). Like for instance, Mehta and Bhojwani (2020) evaluated the shift in Management Accounting Practices usage by Indian companies and observed that most of Indian companies could not shift to the usage of contemporary (advanced) MAPs due to a large usage of traditional MAPs such as budgeting, planning and old costing systems. Consequently, these companies had no control over their operations, poor accounting information flow, weak financial performance and uncertainty in organizational sustainable future existence (Mehta and

Bhojwani, 2020). Whereas few of surveyed Indian companies that shifted to contemporary MAPs such as balance scorecard, Activity based costing, total quality management, strategic management accounting system, value analysis, brand valuation and benchmarking have maximized their value creation; and improved technical activities through cost control, financial control and management control over all their operations (Mehta and Bhojwani, 2020). However, the higher rate in the usage of comfort-zone traditional MAPs (cost-management practices) justifies the competition challenges faced by many South African companies in the retail industry (Waweru and Uliana, 2016). The excessive use of these traditional MAPs further justifies the considerate gap existing between the theory and practice of MAPs in companies as thought by the South African tertiary institutions (Johnson and Iyami, 2019), and the lack of studies providing key factors requisite knowledge and understanding on the usage of MAPs most particularly in South African retail stores.

In addition, Waweru and Uliana (2016) were of the view that South Africa as a developing country has undergone many changes in the development of its economy. Such changes have also affected many fields worldwide such as the MA field, medicine field, etc. However, this ***change in the management accounting*** environment and environmental adaptations turning to be more complex for organizations was the main pushing factor that had accelerated the needs for sophisticated MA systems packages and new business strategies in the mind of owners and managers. In that same manner, the study conducted by Makrygiannakis and Jack (2016) on understanding Management Accounting Change using strong structuration framework, it was demonstrated that not adapting to new changes is the reason for many organizations fail and experiencing problem to keep their records and information up to date. In this regard, this study is providing an accurate understanding on the reasons why many organizations whether small, medium or large resist to the change and the usage of the advanced MAPs.

However, in the view of many other authors, lack of knowledge was the main reason for many organizations to fail (Karadag, 2015; Boadi and Osarfo, 2019). However, Boadi and Osarfo (2019) indicated in their study that users need to be trained and have requisite knowledge in order to cope in with new MAPs. In addition, Hasan (2017) found in his study that lack of knowledge was earlier the reason for non-usage of costing systems (Activity-Based Costing and Cost Volume

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Profit) in Jordanian organizations. This study will contribute to the body of knowledge by providing enough literature in regards to the knowledge of *factors hindering MAPs* usage in South African organizations, more specifically in KZN retail stores.

Furthermore, many advantages and utilities have been observed in many companies that have used contemporary MAPs worldwide, such as: cost reduction, profit maximization, information integration, etc., which many retail stores are unaware of and think they achieve while not using the appropriate MAPs. In that same regard, Novas, Alves and Sousa (2017) conducted a survey in Portuguese companies examining the roles played by MAPs. The results collected from questionnaires surveyed to senior managers and analysed using the structural equation modelling with AMOS revealed that companies that upgraded to MA changes and shifted to advanced MA systems usage strongly agreed that they gained more competitive advantages in running their companies and improved profitability linked to the usage of new MAPs than companies that had no MAPs used. Therefore, many *cost and MA practices* responding to different organizational needs are available to adapt with within the MA environment, such as: Activity-Based Costing, Total Quality Management, Target costing, Just-in-Time, budgeting, Benchmarking, Balance Scorecard, Capital budgeting system, Customer Relationship Management, Inventory Management system, Competitor performance appraisal, Competitor Cost Assessment and Cost Volume Profit (Hussein, 2018; Nkundabanyanga, Muhwezi and Tauringana, 2017; Sameh, 2017; Waweru and Uliana; 2016; Jeon, 2016; etc.). It is noteworthy that these cost and MA practices are all useful in organizations. However, organizations need to use a system that meets their needs and suit their business operations and environment (Stead *et al*., 2018; Waweru and Uliana, 2016; Miller, 2017). Many of the above-mentioned MAPs are taught and known in South African tertiary institutions, but there is a huge gap on the practices of these MAPs and the knowledge and usage of these practices in organizations (Johnson and Iyami, 2019). This study is motivated to fill these gaps.

Nevertheless, some studies investigated the usage of MAPs and others highlighted the importance of the practices in different industries other than retail industries. Waweru and Uliana (2016) particularly contributed to the MA body of knowledge by investigating the evidence of management accounting change in five South African retail stores, where only few MAPs were

evaluated. However, the limited number of research study available within the context of KwaZulu-Natal specifically in retail stores limits our understanding. Therefore, this study will focus on evaluating the usage of MAPs in the context of KwaZulu-Natal Retail Stores.

1.2.   Research Problem and Gap

The research background had provided an understanding of factors to consider when using MAPs in retail stores. The factors include barrier factors hindering the usage of MAPs, adaptation to changes in the practice of MA and the shift to advanced MA systems. The retail industry is among the most competitive industries in the World (Stead et al., 2018), and the competition driving this industry has been a reason for many organizations to liquidate (Islam, Ebenezer, Sobhani and Shahriar, 2020). However, to face this competition challenge currently in this industry, the MA environment encouraged all organizations to adapt to changes brought up with technology evolvement (Kochtcheeva, 2020). Many South African organizations including retail organizations are resisting to adapt with the new changes. Therefore, failure to adapt to the MA changes by not using the contemporary MAPs drive many retail stores in KwaZulu-Natal to face severe problems towards managing their operations and maintaining pressures from the external environment (Waweru and Uliana, 2016; Tuan Mat, Smith and Djajadikerta, 2016),

One of the major problems hindering the usage of MAPs is high usage rate of traditional management accounting practices (Johnson and Iyami, 2019) caused by the lack of knowledge of MAPs. The fact that there is no much literature or studies known providing knowledge of such factors hindering the proper usage of MAPS in KwaZulu-Natal retail stores, this study will be motivated to provide knowledge contributing to the body of knowledge in the context of KwaZulu-Natal retail stores. In addition, KwaZulu-Natal retail stores experience challenges in managing costs and maintaining stocks at hand (case of stock shortages, obsolescence stocks, etc.) due to the lack of proper inventory systems and poor customer information management strategies used (Makrygiannakis and Jack, 2016; Amarantou, Kazakopoulou, Chatzoudes and Chatzoglou, 2018; Tarver, 2019; Rojas, 2019). Therefore, a part of this study will address the consequences encountered by organizations that did not shift to the usage of new MAPs and will

further provide knowledge awareness of the advantages benefited by companies that shifted to the usage of new MAPs worldwide.

Nevertheless, in spite of the efforts demonstrated by South African tertiary institutions and universities to inform learners on the new management accounting practices available for use in the MA environment, South African retail stores do not apply these practices but are still using traditional MA practices (Johnson and Iyami, 2019). The usage of these traditional MAPs in KZN retail stores is not as much as sufficient to guarantee future profit maximization as it is believed that retail stores are not progressing strategically; and consequently, instead of really addressing the needs of customers rather they just provide what they think customers needs at higher costs (Olalekan and Jumoke, 2017; AlManei, Salonitis and Xu, 2017), of which the usage of contemporary MAPs is very essential in this regard. South African tertiary institutions have transferred the requisite knowledge of all MAPs in education, but there is an extreme failure of the usage of that knowledge in practice; and linking to this study, there is a lack of knowledge of the usage of MAPs in South African retail stores. This study will fill these gaps in the context of KwaZulu-Natal retail stores.

Meanwhile, some studies investigated the usage of MAPs and others highlighted the importance and advantages of MAPs in different industries other than retail industries. However, the limited number of research study available on management accounting practices' usage within the context of KwaZulu-Natal specifically in retail stores limits our understanding. Therefore, this study is dedicated to address the above-mentioned problems experienced by retail stores, bridge the gap between the theory and practice of MAPs and evaluate the extent at which the usage of MAPs facilitate the flow of information for internal reporting within the context of KwaZulu-Natal (KZN) retail stores.

1.3. Research Aim and Objectives

1.3.1. Aim

The aim of this study is to evaluate the extent at which the usage of MAPs facilitate the flow of information for internal reporting in KZN retail stores.

1.3.2. Objectives

The objectives of the research work are stated below. These objectives are to;

i. Evaluate factors hindering the usage of management accounting practices in KwaZulu-Natal retail stores

ii. Evaluate and reveal the management accounting practices used in KwaZulu-Natal retail stores

iii. Determine the change effect on the practice of Management accounting in KwaZulu-Natal retail stores and reveal the benefits towards the change in MAPs thereof.

iv. And demonstrate the effect of change in the practice of management accounting in improving competitive conditions, financial performance, costs and revenues allocation and sustainable information flow in KwaZulu-Natal retail stores?

1.4. Research Questions and study hypothesis

1.4.1. Research Questions

The act of constructing a well-designed and academically levelled research question is one of the critical aspect in any research work. According to Wildemuth (2016), the research question may be derived from the researcher's observation, own experience and interviews. These assist the research's study to construct robust and logical argument. Below are the formulated research questions for this study:

i. What factors hinder the usage of management accounting practices in KwaZulu-Natal retail stores?

ii. What are the management accounting practices used in KwaZulu-Natal retail stores?

iii. What changed in the practice of management accounting in KwaZulu-Natal retail stores and what are the benefits towards the change in MAPs thereof?

iv. And how does the change in the practices of management accounting impacts on KwaZulu-Natal retail stores' competition, financial performance, costs and revenues allocation and sustainable information flow?

1.4.2. Study Hypothesis

Using the path coefficient, 7 hypothesis which are linked to this study objectives and questions were formulated to determine the significant relationships existing between the four (4) latent variables developed in this study, which are: **barriers towards usage of MAPs, MAPs (contemporary or advanced), Cost-management practices (traditional MAPs) and MA change.**

Below are the 7 formulated hypothesis:

I.   Determine the significant relationship existing between the barriers to MAPs and management accounting practices in KwaZulu-Natal retail stores

II. Determine the significant relationship existing between the barriers to MAPs and Cost-management practices in KwaZulu-Natal retail stores

III. Determine the significant relationship existing between the barriers to MAPs and management accounting change in KwaZulu-Natal retail stores

IV. Evaluate the level of relationship existing between management accounting change and cost-management practices in KwaZulu-Natal retail stores

V.   Evaluate the level of relationship existing between management accounting practices and cost-management practices in KwaZulu-Natal retail stores

VI. Determine the mediating role of management accounting practices on the relationship between barriers to MAP and Cost-management practices in KwaZulu-Natal retail stores

VII. Determine the mediating influence of management accounting change on the relationship between barriers to MAP and cost-management practices.

1.5.   Justification for the Study

This study has double implications looking at its usefulness which are theoretical and practical.

In a bid to consider the potential benefits from the theoretical point of view, this study will contribute to the existing MA body of knowledge by filling the gap between the theoretical knowledge of MAPs and their application (Bui, Le and Nguyen, 2020) in the context of KwaZulu-Natal retail stores, and taking in consideration all factors contributing to a successful usage of MAPs, which ensure not only the operational information flow in retail stores, but also ease the

internal and external communication between retail stores and their users. In that same manner, this study will also provide or create an awareness to retail stores' owners and managers on how vital using management accounting practices is in their businesses as means of ameliorating organizational performance and maintaining the level of competitiveness in their business environments.

Also, considering the practical point of view, this study would be important because many fields including the MA field are currently affected by technology and technology has a great impact in every organization's day-to-day activity (Baert, 2016). However, this study will be beneficial to retail stores (small, medium and large) and owners of any other organizations in terms of how to manage their operations (i.e., deals with products, costs or revenues or stocks), communicate with their users and add value to their businesses. This will assist in demonstrating the evidence of the utilities and roles played by management accounting practices in organizations for decision-making purposes and corporate practices.

1.6.   Scope (Delimitation) of the Study

This study will be conducted in South Africa (SA) within the province of KwaZulu-Natal, which is the only area of physical focus. The study is conducted in South Africa because Redl (2018) highlighted in his macroeconomic study that there is more uncertainty in South Africa caused by political and economic instability. In addition, Johann and Astrid (2017) indicated that information systems are mostly valuable in South Africa. The lack of studies on the usage of management accounting practices especially in South African retail stores is the major coverage area of focus that the researcher will provide more information that will create a framework on the benefits or roles generated from the usage of MAPs.

Considering the fact that KwaZulu-Natal retail stores growth and profit maximization is collapsing due to competitive conditions, excessive usage of traditional MAPs (Cost-management practices) and non adaption to new management accounting tools, practices and techniques in order to have control over their operations, this study will look at the management skills level of awareness on the evidence of the usage of these MAPs in KZN retail stores. However, the estimated targeted population for this study is approximately 30 retail stores registered in the

Johannesburg Stock Exchange (JSE) available and **easily accessible** in the province of KwaZulu-Natal with a minimum number of employees averaging from minimum 10 and maximum 250. Therefore, the researcher selected 21 retail stores in KZN whereby 5 managers in each of the 21 sampled KZN retail stores (food/beverages stores, hyper/super markets, clothing stores and home furnishing stores) will respond to 1-questionnaire each. In each of the 21 sampled retail store, one account manager will participate to the interview process with the researcher.

This research work will reveal the usefulness of MAPs and encourage retail stores, organizations' owners and managers to use new management accounting tools, practices and techniques in order to have control over their operations.

1.7. Structure of the Study

This study is made up of five chapters as stated below:

Chapter one:

Introduction: This is an introductory chapter revealing the background of the research, the research problem, aim and objectives, questions, justification and the scope of the study.

Chapter two:

Literature review: This is the chapter which discusses factors relating to the conceptual and empirical review of MAPs effect in retail stores. These factors are competition, barriers towards MAPs and utilities or roles played by MAPs. The theoretical review, theoretical framework, Summary and identification of gap are highlighted and explained.

Chapter three:

Research Methodology: This section discusses the research design, target population, sample size and sampling techniques, data collection techniques, data collection plan, data analysis techniques, reliability and validity, anonymity, ethical consideration ethical clearance letter and a research methodology summary are mentioned and explained.

Chapter four:

Data Presentation, Analysis and discussion of findings: This section outlines the findings collected from retail stores, analysed and discussed to meet the research objectives

Chapter five:

 Summary, Conclusion and Recommendations: This section explains the summary and conclusion of the study. It also provides recommendations to retail stores, limitations of the study and the suggestion for further research.

1.8. Chapter Summary

This chapter was an introductory chapter which revealed the background of the research, the research problem, aim and objectives, research questions and hypothesis, justification, the scope and the structure of the study.

To ease the navigation, the next chapter provides literature reviews linked to this study.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This section consists of definitions of some conceptual terms and revealing theories, framework and empirical findings from previous studies tied up with management accounting practices (MAPs) usage in organizations, more specifically in retail stores.

2.1. Conceptual Review

This section provides a brief overview of the South African retail industry which is subdivided into: brief overview of the South African retail industry, competition, barriers towards the usage of MAPs, management accounting (MA) change and conceptual evidence of MAPs in the retail industry.

2.1.1. Brief overview of the retail industry in South Africa

After Nigeria, the South African economy is the largest economy in Africa (Mafini and Dhurup, 2015), because of its most established retail market and the highest consumer spending in Africa (Mafini and Dhurup, 2015). As highlighted previously, the retail industry is one of the most competitive and profitable industries in the World for business investors (Stead *et al.,* 2018). According to Dubihlela and Ezeonwuka (2018), the growth identified in the retail industry is enumerated from the strong performance of the South African economy after the year 1994. Despite the changing environmental and economic conditions, retail sales continue to grow driven by low inflation and low interest rates (Dubihlela and Ezeonwuka, 2018). The retail industry of the local economy contributes to about 14,4% of the South African Gross Domestic Product (GDP) and approximately 2 825 000, which represents 22% of the national labour force

of persons employed in the retail stores throughout the country (Dubihlela and Ezeonwuka, 2018). This strong contribution to the growth of the South African economy uplifted the necessity of having South African retail stores operated in the remote townships which were served before by informal traders only (Selvam and Kannaiah, 2015).

The changing overview of the retail industry in South Africa is subject to technological advances implications in running businesses and the presence of large competition driving this industry. For the purpose of serving the needs of consumers, many retailers are available in the South African market place characterised with different potential customers in terms of income, age, race and culture (Khathutshelo and Nonkululeko, 2019). Dubihlela and Ezeonwuka (2018) are of the view that the South African retail industry is undertaken by licenced retailers (i.e., those in the organised sectors) and unlicensed or informal retailers (i.e., those in the unorganised sectors). The major role played by the retail industry is that retailers are the link between the primary manufacturers and producers to facilitate the quick and immediate supply of products and services satisfying the consumers' needs at reasonable and competitive prices that will still generate profits (Malgas and Zondi, 2020; Khathutshelo and Nonkululeko, 2019). And these retailers are categorised into two groups, which are food retailers (i.e., mostly available: convenience stores, supermarkets and hypermarkets) and general merchandise retailers (i.e., clothing stores, Home Furnishings stores, speciality stores and drug stores).

However, as for food retailers, seven major retail chain stores serve South Africans in the retail food industry. These are Shoprite, Spar, Massmart, Pick N Pay, Woolworths, Metro cash and carry and Checkers. In this same regard, these South African major retail chain stores (i.e. supermarkets) have further expanded their market share even into the foreign countries through openings of new subsidiaries, franchising, purchasing of other supermarkets, making partnerships with other chains (Das Nair, 2018). And as for general merchandise retailers, these are retailers who provide products or offer services to the general public but exempt items such as food or groceries (Das Nair, 2018).

For the purpose of this study, survey questionnaires will be addressed to both food retailers category and general merchandise retailers category.

2.1.2. Competition

Competition is among one of the challenging factors to overcome in the business world and tends to refrain many organizations from maintaining a sustainable growth (Islam *et al.*, 2020; Lee and Vachon, 2016). The day-to-day running of business operations is becoming more complex since the earlier introduction of competition in retail stores (Szász, Rácz, Borza and Benedek, 2019). Helm, Kim and Van Riper (2018) found that numerous physical large, medium and small retail stores were permanently closed in the last few years because of competition, in an expression called: retail apocalypse. However, in the study conducted by Byun, Han, Kim, and Centrallo, (2020) in US retail businesses, it was revealed that retail apocalypse is a direct phenomenon indicating the effects of retail stores' dissolutions caused by the negative impact of competition, rapid digitization, e-commerce retailers and the growing dominance of more consumers' preferences placed in advanced MA systems currently available.

Due to this increased complex and competitive conditions retail stores operate in, retail stores nowadays need awareness of all internal and external MA practices, which may directly improve the running of their businesses (Naidoo and Gasparatos, 2018). However, this awareness awakens mind of retail stores' owners and managers to comprehend how useful MAPs used improve business activities and competitive conditions (Stead *et al.,* 2018). In the view of Das Nair (2018), it was highlighted that in the MA working environment more strategic cost and management accounting practices such as planning and budgeting have been helpful and able to respond to competitive conditions.

However, please note that originally, the field and practices of MA were only concerned with costing; but nowadays, they both covering most of organizational areas including stronger support for decision-making effecting from actual advancements of technology and global changes and competitive conditions (Byun *et al.,* 2020).

To ease the navigation, this study considers the two major factors that influence the running of every retail store facing competition according to Byun *et al.,* (2020): the costing and quality.

a. Costing

Jyoti, Arora and Kour (2017) are of the view that many organizations believe that this factor of "competition" simply mean the reduction of price or cost for products or services; but the actual business reality states otherwise in that manner (Wang, 2017). In order for the organization to sustain and be successful in the current competitive business environments, the products' price must be reliable, the products' quality must be enhanced and there must be a strong improvement in performance, strategies and productivity (Wang, 2017; Jyoti *et al.,* 2017). However, some cost-management practices (strategies) have been adequately proven in the MA environment to respond to competitive conditions, such as: cost leadership, product differentiation, etc. (Wang, 2017; Valipour *et al.,* 2012; Banker, Mashruwala and Tripathy, 2014).

Cost leadership strategy

This is a MA technique where the organization is the most competitively priced (lowest) in the market (Wang, 2017). However, lowering prices is detrimental as it may lead organizations into failure or either make organizations not maximizing their projected profits in return. Evident from the case study of a retail store based in United States "Wal-Mart Stores Inc." conducted by Martínez, Galván and Alam (2017) on financial analysis of retail business organizations, it was revealed that besides the beneficial advantages of applying cost leadership on products, such as: provision of small and better profits in a very long term, provision of more market share in a very long term, improvement of the organizations' sustainability in a very long term and the leading of competition from the market environment; the cost leadership: tends to reduce products' innovation in the industry and requires more sales to be made over a long period of time in order to succeed (Martínez *et al.,* 2017).

Product differentiation strategy

This is a MA technique where the organization offers a product or service that is superior to those of competitors even though it has a higher price (Martinez, 2017). In this strategy, the organization attempts to be "unique" regarding the products it offers and tends to keep their reputation superior (Martínez *et al.,* 2017). Evident from the study conducted by Banker *et al.,* (2014) while investigating the relationship between strategic positioning of firms and sustainability of firms' performance; it was revealed that the differentiation strategy can lead to

more sustainable financial performance than the cost leadership strategy as it promises reliable profits in return just in few sales realized in a short moment of time. Nevertheless, the differentiation strategy is associated with much risks in times of a higher competitive business environments; therefore, the study suggested that firms apply either the cost leadership strategy or differentiation strategy depending on the products they are buying or selling, business environment they are operating in and the level of competition raging the industry (Banker *et al.,* 2014).

b. Quality

According to the American Society of Quality, quality is a distinguishing attribute of a product that bears on its ability to respond and satisfy customers' particular need. This factor must be considered when facing competitive environment. In addition, in the study conducted by Giri and Masanta (2020) on the supply chain model with price and quality dependent demand in a stochastic environment, it was highlighted that quality is cost, price, experience, standard and value of performance a retailing environment can set for their products or services to offer. However, the MA environment has been provided with few MA systems dealing with quality of products which can assist organizations respond to competition: Total Quality Management (TQM) system, strategic quality costing system like Just In Time (JIT) system, etc.

Total Quality Management (TQM) system

According to Uluskan, McCreery and Rothenberg (2018), the total quality management is a contemporary management system for a customer-focused firm involving all workers in continual improvement. In their investigation study based on the impact of quality management system on organizational change, Uluskan *et al.,* (2018) highlighted that quality is linked to organizational change and performance. Evident from the findings collected in their questionnaire, where it was revealed that the company was customer-focused, employees well involved to attain the same goal, placed its focus on interconnecting all organizational functions, a well-established strategic plan integrating the organizational quality, data were continually collected to improve the organizational decision-making accuracy and there was an adequate communication in case of organizational system change which motivated employees at all levels (Uluskan *et al.* 2018). Moreover, Uluskan *et al.,* (2018) are of the view that any organisation with

an adequate TQM system used where there is an increasing good employee relation with customers, the level of organizational change commitment also increases.

Just In Time (JIT) system

Naqvi, Fahad, Atir, Zubair and Shehzad (2016) are of the view that to avoid being victim to competition challenges, it was discovered in the 1990s, a practice adopted for quality and production management called "JIT system". This system was revealed to be suitable for large and medium organizations (able to sustain while maintaining risk of inventory shortages costs, sales lost) i.e., not suitable for small organizations (Naqvi *et al.,* 2016). However, while investigating the role of logistics and supply chain management practices in improving operational efficiency in the United Arab Emirates (UAE) retail industry, Jawabri, Rehman and Alarmouti (2019) revealed that the Just in Time system is an inventory management system that is used in the retail industry only at the moment when the inventory is in need. In addition, Aro-Gordon and Guptha (2016) indicated that the JIT system is more preferable by the retailer's when the sale to be made is for the products or items attributed to higher order cost and low demand.

However, the approach of this system is to produce a distinguishing quality of products, minimize wastage costs on unnecessary activities, respond fast to changing market conditions and satisfy customer needs by providing good qualities of products at a reasonable price (Naqvi *et al.,* 2016; Jawabri *et al.,* 2019; Aro-Gordon and Guptha, 2016). Nevertheless, despite all the above advantages linked to its approach, Jawabri *et al.,* (2019) did not suggest the usage of this system (JIT) in retail stores (such as: clothing stores or food stores) because most of retail stores would not operate efficiently while waiting for customers to place real time orders; as this may result in losing money from many lost sales (Naqvi *et al.,* 2016).

2.1.3. Barriers towards the usage of management accounting practices

Waweru and Uliana (2016) are of the view that understanding barriers towards management accounting practices recommends researchers to first understand the reasons behind the barriers. In MA, Change is the main reason that brought many barriers towards the usage of MAPs (Waweru and Uliana, 2016; Olalekan and Jumoke, 2017; AlManei *et al.,* 2017).

In the earlier introduction of accounting systems in the accounting environment, systems operating in place where more focused in planning, budgeting and costing of products (Lee and Vachon, 2016). However, as the MA environment started experimenting great changes towards its role in the organization, more emphasis was no longer based on planning, budgeting and costing, but the decision-making role became very crucial and indispensable (Olalekan and Jumoke, 2017). And this accelerated the need for contemporary or advanced MAPs to be used in organizations to assist management accountants when making-decision.

However, to ease the navigation, below are explained two major factors constituting the barriers towards the usage of MA Practice, which are: lack of knowledge and feeling of anxiety.

a. Lack of MAPs' knowledge

Knowledge is power. According to Tarver (2019), managing retail organizations has never been easier and requires much knowledge, care, experience and dedication to ensure everything in the business is falling into place. In the view of many other authors, lack of knowledge was the main reason for many organizations to fail (Karadag, 2015; Boadi and Osarfo, 2019). However, Boadi and Osarfo (2019) indicated in their study that users need to be trained and have requisite knowledge in order to cope in with new MAPs.

b. Feeling of Anxiety

Makrygiannakis and Jack (2016) defines the anxiety feeling as the inability feeling of not willing to cope with something new as it appears in mind to be disruptive and not easy.

2.1.4. Management Accounting Change

According to AlManei *et al.*, (2017), many current MA literatures suggest that business environment where MA is applied appears to have changed with information technology advancement, uprising rate in competition, new focus on quality and customer services and economic recession of a country. As an emerging country, South Africa has undergone many changes in the development of its economy (Waweru and Uliana, 2016). Waweru and Uliana (2016) are of the view that such changes in South Africa have been caused by the government reformation in the earlier 1990 and technology evolvement launched to respond to economic

factors, environmental factors, strategic factors, business-based needs and crisis faced in South Africa particularly.

However, major competitive advantages have been found in organizations that adapt to new changes. Evident from the study conducted by Waweru and Uliana (2016) on MA change in 5 South African retail stores, their results revealed that retail stores that adapted to MA change by shifting to contemporary management accounting practices such as: Activity based costing allocation system and balance scorecard to performance measures have highly improved their financial performance and operations' management.

In addition, from the United Kingdom (UK) cross national survey conducted by Sameh (2017) in 106 different industries; while evaluating the systems that were used in these industries, Sameh (2017) revealed that positive results found from UK organizations basing their operations together with the change to new technology and systems justify the reason of the healthy economic conditions prevailing the UK economy.

2.1.5. Conceptual evidence of management accounting practices in the retail industry

MA is the heart of corporate management (Asumani, 2019). Considering this integral part MA occupies in organizations, the MA environment has been provided many cost (management and advanced) accounting systems available in the field to adapt with, such as: Total Quality Management (TQM) system, Activity based Costing (ABC) system, Balance Scorecard (BS), Throughput Accounting (TA), Customer Relationship Management (CRM) system, Economic Order Quantity (EOQ) system, Marginal and traditional costing system, Cost Volume Profit (CVP) system, traditional/absorption costing system, Product Life Cycle, Activity based management (ABM), target costing, Just In Time (JIT) system, decision making, management control systems, planning and budgeting, etc. (Hussein, 2018; Sameh, 2017; Nkundabanyanga *et al.,* 2017; Waweru and Uliana, 2016; Jeon, 2016; etc.). As previously highlighted, please note that all the above-mentioned management accounting practices are useful in retail stores, but the store must use the practice (s) that meet(s) their needs and suits their business operations and environments (Stead *et al.,* 2018; Waweru and Uliana, 2016; Miller, 2017).

However, the next part will be an explanatory evidence section of the usage of management accounting (Cost-management) practices in organizations, most particularly in retail stores; which to ease the flow, the researcher has decided to differentiate them from 2 categories: traditional MA practices (Cost-management practices) and contemporary or advanced MA practices

A. Traditional MA practices or Cost-management practices

Budgeting

According to Cools, Stouthuysen and Van den Abbeele (2017), budgeting has been conceptually proclaimed as an "unavoidable and compulsory" management practice suitable to all types of organizations. For an organization to properly manage their operations and prepare for success, it is believed that they must budget for everything. On the view of Asumani (2019), budgeting is planning for the organizations' success in advance. However, this practice of budgeting has a strong historical background that enumerated from the past centuries when the escalation in competition, deflation, market depression and decline in products' profitability had pushed owners and managers to consider this management tool as a precautionary measure and response to these organizational threats (Asumani, 2019).

In addition, many publications have revealed some utilities played by the budgeting system in surveyed organizations, such as: ensuring a foreseeable survival and growth sustainability, predicting the upcoming results and maintaining organizations' stability in the business (Dokulil, Zlámalová and Popesko, 2017; Cools *et al.,* 2017). Furthermore, Baker and Quéré (2019) highlighted that the most suitable and reliable MA practice to use during a financial crisis period is "budgeting"; because it structures the strategic planning, compel the implementation of plans, enhances communication and coordination of departments (workers, subunits, etc.) in companies, and provide a structured framework for measuring performance (Baker and Quéré, 2019). Moreover, Asumani (2019) highlighted that 'budgeting practices' being introduced have served as strong foundation and key element of management control system as it is the only system that covers at a time all structures and area of the organization and provides a deep and

well detailed information concerning the present and future goals to be accomplished by the organization.

Nevertheless, besides all the above-mentioned roles and utilities played by the budgeting practice, Ellul and Hodges (2019) indicated that this practice isn't hundred percent (100%) perfect from its imaginary positive expectation based on imperfect information. That was evident from the study conducted by Ellul and Hodges (2019) to Maltese central government board, where the respondents indicated that number of limitations have been experienced by the use and application of budgeting system only in their working sectors, such as: higher costs in acquiring information and inefficiency (inability) to operate exactly as predicted in case of bad changing conditions.

Planning and Forecasting

According to Al-Fasfus and Shaqqour (2018), planning is a management control step aiming to define (set) goals for the companies' future direction and outline goals to meet the missions and employ on resources to achieve companies' targets. During this planning section, organizations forecast the running of all their operations in the future. Nevertheless, not every plan means success, but success comes from well-maintained and followed up budget and plans. In addition, Benjamin Franklin quoted that: "when you are failing to plan, you are planning to fail".

However, according to Ali and Gürlek (2020), most of organizations prepare budgets to forecast their operations. Like for instance, in case of retail stores whether small, medium or large, forecasts are prepared for their operations at large and product categories. In large retail stores, forecasting decisions are made by top management level personals (Owner, executive manager, accounts manager, sales and marketing manager, etc.), while in small retail stores, the highest top management level tends to be the only heavy user responsible for making forecasting decisions (Ali and Gürlek, 2020). And two (2) accounting practices have been useful to assist retail stores in forecasting their operations: "planning" and "budgeting" (Ali and Gürlek, 2020). According to Ali and Gürlek (2020), budgeting uses are suitable and mostly applied by small retail stores as they employ the top-down forecasting strategy; while planning applications appears to

be more effective and mostly used in large retail stores as they employ the bottom-up forecasting strategy.

Traditional costing system and Activity-based costing system

According to Broughton Kristin (2019), retail stores and any other competitive organizations must ensure their costing practices are competitive, comprehensive, fair, realistic, professional and reliable. That is because majority of customers nowadays are cost-based (Apostolide, 2016).

However, Apostolide (2016) suggested that, while calculating the costs of a product to be introduced or sold in the market, companies (managers) must do so on the basis of gathering all different costs of production (variable) and any operating costs (semi-variable and fixed). Two MA practices or systems help out organizations in this case: the traditional costing system and activity-based costing (ABC) system. According to Apostolide (2016), the difference between the above-mentioned techniques is that, the ABC is a contemporary or advanced MA technique which is more appropriate to companies with so many different departments within (i.e., universities, governmental departments, companies with subsidiaries, etc.) whereby all overhead costs generated by the organization are allocated to activity costs using an activity driver (base used to assign costs of a driver to different activities in proportion with their actual consumption using that driver); while the traditional costing system is a system where the overhead costs are allocated to activities using the unit-level basis.

Evident from the study conducted by Kuttner and Feldbauer-Durstmüller (2016), while comparing MAPs usage in Singapore and Indian companies; it was revealed that traditional cost accounting practices were widely used in Singapore and Indian companies. However, they suggested that new MAPs have been more relevant to companies that take a more strategic focus to business, and thus were more effective for global competitiveness. Consequently, in this traditional costing system, the unit-level driver of a cost or activity will vary in proportion with the actual number of units sold or produced.

Furthermore, due to changes caused by the advancement of technologies that inculcated the "comparison of products, searching of products in online platforms, selection of products and shopping improvement experiences by customers" in retail business environments nowadays,

the use of traditional MA system in a retail store is detrimental on customers' point of view and may refrain its sustainable growth technically and strategically (Alfian, Ijaz, Syafrudin, Syaekhoni, Fitriyani and Rhee, 2019). In contrast, however, one of the advanced and contemporary cost and MA practice titled: "Activity-based Costing (ABC)" has been surveyed, researched and revealed in many publications to be a costing practice accommodating perfectly with the management and allocation of costs in today's business environments (Apostolide, 2016; Asana, Radhitya, Widiartha, Santika and Wiguna, 2020; Miller, 2017). In addition, it's necessary to also highlight that the ABC appears to be one of a good practices suitable for large organizations, i.e. in which many retail stores are part of (Apostolide, 2016).

Absorption Costing and Marginal Costing System

While investigating the costing challenges encountered during the lean management practice usage in small and Medium Enterprises (SMEs), Almeida and Cunha (2017) highlighted that as managers and executives take decisions following their plans, considering analytical potential (competition, inflation, deflation, etc.) and emphasizing control over risky costs, the variable (volatile) and fixed costs allocation decision to activities are critical. However, two costing allocation systems are suggested: the absorption or marginal (variable) costing systems (Almeida and Cunha, 2017).

According to Almeida and Cunha (2017), the absorption costing system is an approach whereby both (variable and fixed) costs are linked to the production of an item. Hence, all costs are written off as product costs when calculating the net profit generated through the sale of that item. This technique is useful for small and medium size of organizations running their business on making decisions for their operations on long-term basis. In contrast, Belayneh (2018) defined the variable (marginal) costing system as a costing practice whereby only the variable costs linked with the production of an item are assigned to its unit cost. All the fixed costs are considered as period costs (which are all costs not linked with the production process). Belayneh (2018) further mentioned that this system is useful to the organizations as its information helps for planning and short-term run decisions mostly for the businesses which operates by making decisions for their operations in short term basis.

Standard costing

According to Paul and Cokins (2020), there was a costing practice titled: "standard costing system", a system whereby the actual costs incurred and the revenues are compared with the pre-determined costs (revenues) to find the difference called "variance". In this system, budgets are established priory and reliably and managers implicate a lot of focus on activities where decisive actions need to be taken (management by exception). Nevertheless, Januarie (2016) indicated that this system (standard costing) is no longer suitable for the actual economic reality due to its application deficiencies (i.e., its major concerns relate particularly to single cost units and costs are not recorded in the accounts for decision making goal, planning and control).

Cost Volume Profit (CVP)

For assisting management in planning and decision making purposes, Akmese, Buyuksalvarci and Akmese (2016) suggest that the Cost Volume Profit (CVP) technique to be used focusing on five (5) factors affecting its application, i.e., prices of a product, unit cost of variable cost, product mix, activity levels and the total fixed costs. However, according to Herath and Sharman (2019), the CVP technique is a practice of planning, control and management of a company's operations, which investigates the impact of one or many (mix) products on different courses of actions that needs to be undertaken by an organization in order to expand its business and maximize profits. Once applied, this technique helps the organizations to scrutinize the way by which their revenues, operating income (total revenues minus total costs) and costs behave (vary) as the production level change (Akmese *et al.,* 2016; Herath and Sharman, 2019).

However, many benefits have been conceptually revealed and empirically found from organizations applying traditional MA Practices as highlighted above; and this study does not discourage retail stores to use those traditional MA practices for managing their operations. Nevertheless, many disadvantages and weaknesses have been reported and found specifically in a number of retail stores surveyed using Traditional MA Practices in managing their operations such as: low and weak improvement in retail stores' performance (Stead *et al.,* 2018), weak internal and external integration and interaction of information between an organization and its users (Rizgar *et al.,* 2015) and inadequate response to competitive conditions (Helm *et al.,* 2018; Ellul and Hodges, 2019). Therefore, this study encourages retail stores to shift to the usage of

contemporary, advanced or new MA practices as these practices fully fit in the actual complex and competitive conditions faced by many organizations Worldwide (Szász *et al.,* 2019; Naidoo and Gasparatos, 2018).

B. Contemporary or advanced MA practices

Activity-based Costing (ABC): This has been explained previously

Balance scorecard (BSC)

Yancy (2017) defined the balance scorecard as a strategic MA system enabling organizations to transform their strategy and vision into action. This practice assists organizations in communicating what they are expected to accomplish and monitor the progress of their targets in the following main aspects: internal processes, customer, growth and financial aspect.

However, Yancy (2017) investigated the empirical evidence on firms adopting the BSC, and the study revealed this practice (BSC) is suitable for large firms, decentralized firms, firms reflecting a poor previous financial performance, firms operating with intangible assets and firms working with the prospector strategy.

Benchmarking

According to Claro and Kamakura (2017), benchmarking is a management practice enabling one organization to discover their performance as it is being compared with the performance of the best competing organizations.

While identifying the sales performance gaps using the internal benchmarking in 30 Spanish grocery stores over the period of 2015 to 2017, Claro and Kamakura (2017) highlighted that the benchmarking practice generates a guaranteed higher performance in retail stores when the comparison or measurement process is done by the company from the single product, service or process in sale against those of retail stores strongly recognized as leaders in one or more aspects of their operations. However, Claro and Kamakura (2017) suggested retail stores to use this system (benchmarking) as it enables the retail store to identify products, systems, areas, processes, etc. that require improvements.

Brand Valuation

According to Hirsilä (2017), brand valuation is a management technique that assists to evaluate the brand value based on customer perceptions, brand equity and financial performance.

However, the customer perception is directly linked to how valuable the retail store attributes its brand, known as a logo or trademark differentiating from competitors. In this regard, Hirsilä (2017) highlighted that a retail store with a strong brand and higher brand valuation have a great influence on customers' behaviour and sales in the market. Like for instance, Amazon had a brand valuation of $150.8 billions in 2018; therefore, in market capitalisation, Amazon was recognised as the top online business retailer in the World.

However, and a positive and higher brand valuation facilitate retail stores to purchase a great brand very influential in the retail industry, promises an efficient financial performance and changes the total outlook of the store in its day-to-day transaction (Hirsilä, 2017). Evident from the case study by Tien, Vu and Tian (2019) at Coca-Cola in Vietnam, it was revealed that the strong brand of Coca-Cola vested in the beverage industry has in advance being taken as a "shortcut" in the purchasing decision process of customers.

Competitor cost assessment

Lawrence and John (2019) explained the competitor cost assessment as an analysis of competitors' cost at a product level. In their study conducted in Nigerian manufacturing firms, it was revealed that firms performing these competitors' cost strategy are enabled to cope with the actual increasing technological complexities and business environments' competitiveness (Lawrence and John, 2019). In addition, Lawrence and John (2019) revealed that being aware of the competitors' strengths or weaknesses at the cost level is empowering the surveyed companies to make decisions on strategic actions to be adapted while facing competitors. Furthermore, being aware of competitors' cost decision enabled companies to understand competitors' future behaviour, which is more opportunistic and considered as a competitive advantage. Moreover, the correct competitors' cost analysis prepared affects positively the surveyed firms' return on equity and net profit margin. (Lawrence and John, 2019).

However, the study recommended and suggested that manufacturing firms including all types of firms operating in a competitive environment use the Competitor cost assessment technique to sustain their costing/pricing strategy for ensuring a sustainable financial performance (Lawrence and John, 2019).

Competitor performance appraisal

According to Sumkaew and Intanon (2020); Yang and Lau (2019), the competitor performance appraisal is an accounting strategy dedicated to analyse competitors' performance and help improve their performance. In retail stores, this appraisal is performed from figures collected in the published financial and audited reports (Sumkaew and Intanon, 2020).

However, Karaosman, Brun and Morales-Alonso (2017) investigated the competitors' sustainability appraisal in the luxury fashion retail chain; in their study, it was revealed that a store following up on recent information of competitors published financial statements are deemed to more dedications for improving sustainable performance and motivated to improve their return on profits at their financial year end.

Customer Relationship Management (CRM)

MAPs used ensure uninterrupted communication with users and assist with reliable information flow within the organizations. According to Stead *et al.,* (2018), every retail store must ensure that consumers are fully satisfied in order to realise a reasonable return on profits. Having a solid interaction with customers and ensuring that customers' complaints, needs, feelings and profitability are prioritized are some of the key goals' predictors of a foreseeable sustainability for any organisation (Kubjatkova and Krizanova, 2020).

However, Kubjatkova and Krizanova (2020) informed that the Customer Relationship Management (CRM) system is more beneficial and appropriate to be used in retail stores operating in complex environment as it ensures that a reliable and professional way of interaction with customers are maintained.

Economic Order Quantity (EOQ).

Susanto (2018) investigated the raw materials inventory control analysis using the EOQ method in retail stores and revealed that retail stores must economically manage their inventory to prevent unnecessary costs and obsolescence situations in stocks.

However, after the collection of the data, Susanto (2018) revealed that retail stores that applied the economic Order Quantity method when ordering their materials had succeeded in improving their cost performance through the reduction of **order costs, storage (holding) costs and inventory costs**; hence, improving return on gross profit (Susanto, 2018).

Enterprise Resource Planning (ERP)

Aljawarneh and Al-Omari (2018) conducted a study at Safeway company in Jordan on the impact of ERP system towards companies' CRM system, and revealed that the ERP system usage at Safeway company had a strong positive impact on the increased relationship between the company with its customers and the CRM system.

Nevertheless, in the study conducted by Garg and Khurana (2017) applying the structural equation model to understand critical risks in ERP usage in Indian retail sector, it was revealed that six risks (i.e., project management risk, project performance risk, user risk, team risk, technological risk and organizational risk) must be mitigated in order to have an ERP system used and working perfectly in a retail store. However, once any of the above risk is not mitigated, the ERP system usage may become very detrimental to the future sustainability of the retail store (Garg and Khurana, 2017).

However, more benefits have been found and revealed in Indian retail for using the ERP system, such as: centralized system integrating the retail business processes across many departments in the store: human resources, finance, distribution, procurement, etc.; easing the information flow throughout all retail departments; assist retail organizations manage, use and store data from the day-to-day operations performed (Aljawarneh and Al-Omari, 2018; Garg and Khurana, 2017).

Inventory Management System

Biswas, Karmaker, Islam, Hossain and Ahmed (2017) revealed that when goods are purchased or produced in a retail store, a proper check, management and records of these goods must be done

until the end sales process. In Bangladesh, two major problems are faced by retail stores in managing retail stores: (1) stock-out and (2) overstock (Biswas *et al.,* 2017).

However, while analysing the inventory control techniques performed in Bangladesh store named: "Pran, RFL Group", Biswas *et al.,* (2020) revealed that with a proper inventory management system (ABC, EOQ, Cost analysis) used in this store, a strong probability of stock-out and overstock situations were highly minimized; and it facilitated or assisted managers to keep product availability with the lowest inventory cost when customers' orders were placed (Biswas *et al.,* 2017).

Just In Time (JIT) system: This has been explained previously

Kaizen system

According to Mekonnen (2021), the word Kaizen shortly means continuous improvement. In this system, employees work together proactively at all levels of the organization to continually improve their operations. This system assists retail stores by improving productivity and operations' effectiveness and help reducing waste (Mekonnen, 2021).

However, from the investigation study conducted by Mekonnen (2021) on Kaizen usage in FAFA Food store share company, it was revealed that to ensure the Kaizen system sustainability following the usage in a retail store, there must be sufficient budget and continuous operational follow up on processes performed by the store, such as: knowledge and change management, performance measurement and strong strategic planning (Mekonnen, 2021). Even though, the results from some respondents revealed that there was a major focus in FAFA Food store share company on the **5S** ("**S**" means: sustain, straighten, standardize, shine and sort) usage of Kaizen, data collected revealed that FAFA Food store share company didn't sustain the Kaizen usage within, because of the lack of encouragement from management, less budget allocation, less employee and management involvement and most importantly lack of continuous training system (Mekonnen, 2021).

Material Requirements Planning (MRP)

Firudin, Aghamir and Elsevar (2018) is of the view that the Material Requirements Planning (MRP) system is a planning and decision-making tool used to manage production processes. In this system, while reducing inventory costs, the bill of materials is used to schedule production.

However, Firudin *et al.,* (2018) highlighted that many firms using the MRP system had reported the following benefits: rapidity to respond or update to new market changes, savings on funds, reduction of unnecessary material costs, fast response to customer' orders and stability in inventory levels. In that same manner, having these benefits flowing any type of organizations guarantee a mass increase in return on investment and productivity and improve strategic decision application on inventory (material) management (Firudin *et al.*, 2018).

Performance measurement/evaluation

With the Performance measurement system, the organization productively measure the work and results enumerated from its employees on their work responsibilities (Tripathi and Jha, 2018). This system further plays as feedback tool for the employee to be closely aware of their performance to improve organization's intended goals (Tripathi and Jha, 2018)

However, while investigating the MAPs used in Libyan oil companies, Kalifa, Triyuwono, Irianto and Prihatiningtias (2020) revealed that through the usage of performance measurement system, Libyan oil companies measured the employees' contribution to the workforce equitably and a superior quality and quality of works segregated to employees were perfectly produced.

Process Costing system

With the process costing system, the organization place its focus on determining costs related to the production of a product (Putri, 2017). Once applied in manufacturing companies, this system help minimising costs during the production of a product and ease decision-making on management of costs during the production process (Putri, 2017).

However, while conducting the analysis of production cost calculations using the product costing system in Suli Tofu Factory, Putri (2017) revealed that this system helped Suli Tofu Factory managers to make reliable decisions on maximizing profits and minimizing manufacturing costs, which resulted in a greater flexibility during the production process, reduction of selling price and incremental in quality produced and customers' satisfaction.

Product Costing

According to Rudnäs (2019), organizations apply the product costing system when estimating the cost to be paid on the product. This analysis benefits the organization for controlling costs, valuing inventory and analysing profitability (Rudnäs, 2019).

Once used in organizations, Rudnäs (2019) indicated that there will be no cost effectiveness for long-term benefit only, but there will also be an accuracy on decision-making related to cost control which will result in an efficient Earnings before interest and taxes margin in return.

SWOT Analysis

According to Vijayakumar and Akilandeswari (2019), all organizations must conduct the SWOT analysis to identify their internal **S**trenghts and **W**eakness as well as their external **O**pportunity and **T**hreat. Vijayakumar and Akilandeswari (2019) indicated that this analysis has been reported to be leading organizations in poor decision-making because of too much imperfect information; but while conducting a SWOT Analysis in Indian retail stores, respondents revealed that this prior awareness of factors that affected or may affect their stores internally and externally continuously contributed to their sustainability, helped preventing weaknesses and threats as well as using and dedicating their strengths to grab all market opportunities; hence, it was concluded that this awareness is a competitive advantage to any kind of organization (Vijayakumar and Akilandeswari, 2019).

Target Costing

Lueg (2019) is of the view that the target costing is not just a costing practice, but it is also a management technique. And that's because it is a technique calling management to understand market conditions (prices) and environmental factors (level of competition), as these factors have great influence on every component of a product, service or costs to offer. However, in retail industries, this system is more useful as a preventive measure to the actual complex competition that often impose prices on similar products from similar suppliers (Lueg, 2019).

From the case study conducted by Lueg (2019) on the usage of target costing in online distribution, it was revealed that retail companies operating online are more competitive to those not operating online. Therefore, a retail store applying the target costing creates a more

effective way of building up the sales channel for its transactions (Lueg, 2019). However, Lueg (2019) revealed some benefits of using the target costing in online distribution stores, as follows: reduction of costs, cost and management of costs and targeting of customers and expansion of customers' loyalty

Zero-based Budgeting (ZBB)

According to Ibrahim (2019), ZBB is an expense-management practice aiming to enable and assist managers on rethinking on the ways costs must be slashed (cut off) from the bottom to up level of their companies' spending budget.

Evident from the news reported by Kristin Broughton on the 17th of June 2020 in New York, due to the effect and implications of Coronavirus disease 2019 (Covid-19) causing a global economic downturn, it was reported that Yankee companies' finance executives are forced to have a better look and detailed scope on how to manage and maintain their companies' spending. In addition, the news highlighted that the shift to zero-based budgeting (ZBB) practice is helping more companies (managers) overcome and prevent damages covid-19 lockdown regulations have caused in business environments.

2.1.6. Conceptual Framework

According to Sayin (2016), the conceptual framework is a synthesis of interrelated variables that are part of the conceptual theories developed in a study

Below is drawn a conceptual framework synthesizing all factors employed in this study contributing to the full Usage of Management Accounting Practices in retail stores.

Figure 1. Factors contributing to the full usage of MAPs in Retail Stores
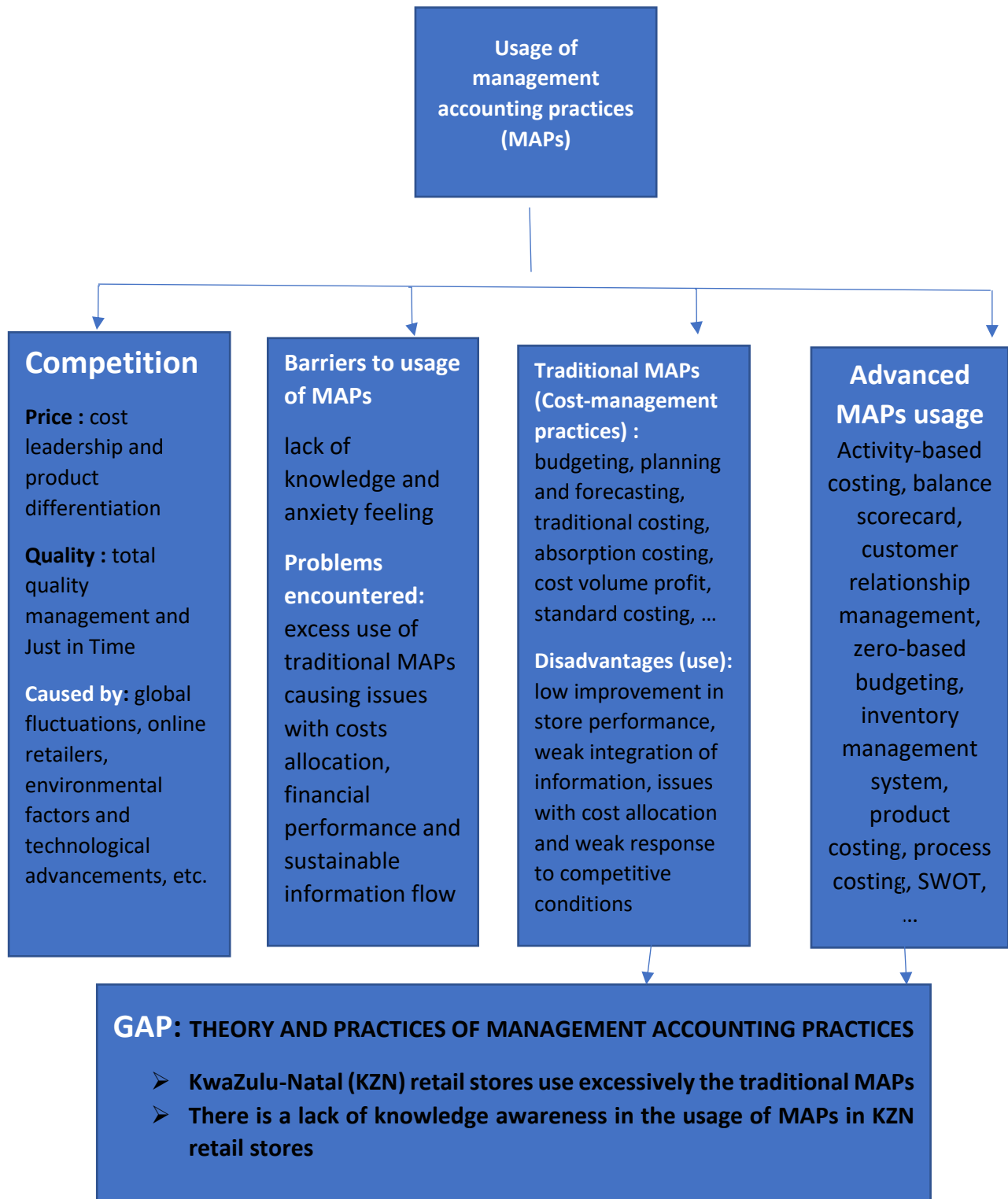
Source: Researcher's compilation (2021). (From theories and literature reviewed).

2.2. Empirical Review

This study aims is to evaluate the extent at which using MAPs facilitate the flow of retail stores' information for internal reporting. However, this study observes that the usage of MAPs differ from one country to other, one company to the other, one industry to the other.

To ease the navigation and provide further contributing knowledge awareness, the study will reveal the empirical evidence of the usage of management accounting practices in retail stores, organizations, countries, etc. including the utilities these MAPs play in these different industries (sectors).

2.2.1. Evidence of MAPs vs traditional MAPs (Cost-management practices)

(2019) conducted a study on a sample of 153 companies belonging in the Gulf Cooperation Countries (GFC) in Asia, namely: Saudi Arabia, Kuwait, The United Arab Emirates (UAE), Qatar, Bahrain and Oman; it was found that the traditional MA practices' adoption rate is very higher than the recently (advanced) MAPs in companies in these countries. In that regard, the study found that most of companies used the budgeting practices and traditional costing systems as a central system in managing operations (Mufid, 2019). Therefore, consequently, it was found that organizations adopting these traditional MAPs had a poor, ineffective and inaccurate performance measurement on business operations. While in contrast, it was found that organizations that adopted the advanced MAPs improved and reported an efficient return on profits over many years, had a strong relationship with its customers and reported a strong performance measurement (Mufid, 2019). In this same manner, Kuttner and Feldbauer-Durstmüller (2016) conducted a study comparing the usage of MAPs between two emerging nations; their findings revealed that traditional MA practices were widely used in Singapore and India. However, they suggested that advanced MAPs have been more relevant to companies that take a more strategic focus to business, and thus were more effective for global competitiveness (Kuttner and Feldbauer-Durstmüller, 2016).

In addition, through many case studies conducted by Modig (2019) on Finnish Multi-National Enterprises and Chinese subsidiaries, it was found that about 90% of companies surveyed have strongly agreed that budgeting is the centre of company's management control system. And many empirical studies have reported that many companies in emerging countries and non-developed countries use budgeting system as the ultimate system guiding all operations to be carried out and it is an unavoidable practice for corporate management practice in organizations (Asumani, 2019; Dokulil *et al*., 2017; Cools *et al*., 2017). Hence, budgetary control and management control appears to be synonyms from a large number of companies' view (Modig, 2019). Nevertheless, 10% of interviewed respondents revealed the budgetary system used by its own is not satisfactory; therefore, they indicated that budgetary system is applied in the first place, and later shift to the usage of new MAPs, which justified the reason of the huge improvement in financial performance found in few Finnish Multi-national enterprises (Modig, 2019).

Furthermore, Ahmad (2012) also found that the usage of traditional MAPs are highly increasing and popular in Malaysia, Singapore, China and India. However, his study found that the barriers towards MAPs' usage were: insufficient available financial resource, unawareness with advanced MAPs and poor high level (top) management support (Ahmad, 2012). Moreover, Kalifa *et al.,* (2020) evaluated the use and benefits of MAPs in Libyan oil companies and found that despite all the benefits carried by traditional MAPs in countries with non-stable economy and the higher rate of adoption of traditional MAPs in Libyan manufacturing companies as found in Ahmad and Leftesi (2014). While Kalifa *et al.,* (2020) found that there is a higher usage rate of contemporary MAPs in Libyan oil organizations, such as: Activity-based Costing, Balance Scorecard, Performance measurement, Activity-based Costing, Activity-based Management, target costing, Life Cycle Costing and in particular Total Quality Management system (used by 60.8%); in that same manner, Kalifa *et al.,* (2020) also found that the highest rate (34,8%) of respondents strongly agreed that advanced MAPs provide more benefits in Libyan oil organizations than traditional MAPs.

From a fictitious case conducted by Miller (2017) on different retailer stores, the use of ABC system and traditional system considering the profit margin generated was compared; it was

found (observed) that using the ABC system in small retailer channel, a smaller return (profit margin) of four (4) per cent (%) was generated; whereas eleven (11) per cent (%) on mass merchandise stores and wholesale stores channels yielded a higher return of nine (9) per cent (%). In contrast, it was found (observed) that using the traditional system in small retailer channel, the highest return (profit margin) of 16% was generated; whereas 9% on mass merchandise stores and wholesale stores channels yielded a return of 7% (Miller, 2017).

Moreover in South African retail stores, Waweru and Uliana (2016) conducted a field study in 5 major South African retail organizations, and found that great changes have occurred in the use of MAPs in these 5 retail stores, where the shift to few advanced MAPs such as: Balance scorecard, Activity-based-based costing and performance evaluation/measurement to measure performance is currently increasing.

2.2.2. Effective evidence on the barriers towards the usage of MAPs in organizations

Hasan (2017) evaluated the barriers towards the usage of MAPs in Jordanian organizations and found that the lack of knowledge of MAPs was earlier the reason for non-usage of costing systems (Activity-Based Costing and Cost Volume Profit) in Jordanian organizations.

During an investigation study on understanding Management Accounting Change using strong structuration framework, Makrygiannakis and Jack (2016) found that many management accountants in surveyed organizations appeared to be afraid to adapt to new MA change, believing that a single change to their work in place may disrupt their workloads.

During their investigation on the MA change in 5 major South African retail stores, Waweru and Uliana (2016) found that contemporary management accounting systems are not widely adopted in the surveyed stores possibly due to practicalities, uncertainties and costs involved in getting the information.

2.2.3. Empirical evidence on the effects for organizations shifting/not shifting to the change in MA practices

From the UK survey investigated by Sameh (2017), where a cross-national study was conducted in 106 different industries (companies) in UK. The study surveyed which kind of management accounting practices, enterprise systems, business processes and information characteristics of practices were applied in these industries. Sameh (2017) in hand with other studies revealed that positive results found from UK companies basing its operations together with the change to new technology and systems justify the reason of the healthy economic conditions prevailing the UK economy.

Jeon (2016) surveyed Korean and Thai companies, by examining the usage of MAPs in these companies and the barriers towards the usage of management accounting practices in response to the Asian financial crisis that occurred in 1997; their findings revealed that great changes occurred in the use of MAPs before, during and after the crisis (especially in Thai companies). However, their study found that traditional MA systems were dropped (only few adapted) after the crisis as per respondents' feedback, but the shift to (use of) advanced management accounting practices after that crisis increased these firms' performance and became a competitive advantage to these firms during and after the crisis (Jeon, 2016).

In that same manner, Broughton reported the shift in the usage of management accounting practices in response to the Covid-19 pandemic outbreak by some Yankee retail stores namely: Guess? Inc., General Motors, Co. and Signet Jewellers Ltd; it was found that these retail stores cut their costs and reduce the effects of the pandemic by using the ZBB approach; furthermore, it was found and reported that using this technique (ZBB) has assisted in particular Guess? Inc. a Los-Angeles clothing retailer to cut millions of dollars' costs during the first quarter of the covid-19 outbreak in United States as the government announced the closure of all retail stores to reduce the spread of the pandemic virus.

In addition, in the study conducted by Makrygiannakis and Jack (2016) on understanding Management Accounting Change using strong structuration framework, it was further demonstrated that not adapting to new changes is the reason for many organizations fail and experiencing problem to keep their records and sustainable information up to date.

2.2.4. MAPs used as response to competition, financial performance, accurate allocation of costs or revenues to products/activities and sustainable information flow

From the study conducted by Rizgar, Sardar and Karim (2015), where it was evaluated the impact of MA techniques in Iraq retail stores (Iraqui Soft drink stores) to respond to competitive conditions; it was found that 78% out of total number of respondents that received 64 5-Likert scale questionnaires drawn by the researchers, strongly agreed that the Total quality Management (TQM), Business Process Reengineering (BPR), Activity-based Management (ABM), Activity-based Costing (ABC), Target costing (TC) and Just-in-Time (JIT) are the six main MAPs suitable for any kind of retail stores (small, medium and large) providing competitive advantages by ensuring stores' business focus towards the competitors.

Da Costa Webber, Sausen, Basso and Laimer (2018) conducted a survey in retail stores investing the MAPs that may facilitate the increase in sales and financial performance, where they used the quantitative and descriptive survey of 93 cases from 329 retail stores, it was found that the BSC is mostly used in modernized retail stores as this management system has being severally proven and found as an important tool for improving retail stores' level of competitiveness, sales and financial performance.

Martínez *et al.,* 2017 evaluated the best MAPs usage between the cost leadership strategy and the differentiation strategy in Wal-Mart Stores Inc. in response to retail stores' cost competitiveness in the market; based on respondents' responses, it was revealed that it is not favourable for large retail stores to use this practice as it is time consuming and less profitable over a short time; therefore, they suggested the differentiation strategy to be applied in large and medium retail stores and cost leadership to small retail stores (Martínez et al., 2017).

In the study conducted by Miller (2017) on the ABCs of the Activity-based Costing for Logistics, it was found that organizations using the ABC are provided with an accurate understanding (knowledge) of their costs to produce and distribute products (goods) to consumers (customers). In this costing system (ABC), there is a precise and accurate view of costs at individual product (or service) and customer level (differing from all necessary activities); while in case of traditional

systems, costs are measured (analysed) at the overall organizations' level. Nevertheless, Miller (2017) concluded that the ABC systems must not be viewed as a new system replacing the organizations' existing systems when used but should rather be regarded as complement of financial systems, traditional costing and management systems.

Please note that MAPs are all useful to be applied in retail stores for many other utilities, but many empirical studies suggest retail stores to use a system that meets their needs, work conditions and suit their business operations and environment (Stead *et al.,* 2018; Waweru and Uliana, 2016; Miller, 2017).

2.3. Theoretical Review

In this study, 4 theories are applied, which are: contingency theory, agency theory, Porter's Competitive forces theory and stakeholder theory.

However, **contingency theory** is mostly applied in this study, because the major element of MAPs studies is "**technology**", which is the major factor making up this theory.

2.3.1 Contingency theory

Contingency theory is a theory that claims that there are no ways to make decisions, conduct or lead an organization, but the optimal course of action is dependent upon the internal and external condition (Otley, 2016). However, 2 factors need to be taken into consideration in order to understand this theory: contingent independent variables and contingent dependent variables. According to Kuttner and Feldbauer-Durstmüller (2016), contingent independent variables are factors such as: technology, environmental uncertainty or crisis, market competition and national culture, etc. and contingent dependent variables are factors such as: organizational strategy, structure, size, information systems, control systems (Otley, 2016). Therefore, it can be observed that since the beginning of this study contingent dependent and independent variables have been the most commonly used.

However, earlier in the 1980s, budgeting control technique appeared to be the most dominant technique which was used in most of contingent research studies (Otley, 2016); but studies revealed that this control technique wasn't satisfying for organizations' needs (Ellul and Hodges, 2019; Otley, 2016). For that reason, Otley (2016) is of the view that the term "contingency" in MA is considered in a much more dynamic context than earlier, and may lead to the need to use more process-based models which examine the mechanisms of change and the usage of new and advanced practices of management and control.

However, Kuttner and Feldbauer-Durstmüller (2016) revealed and found that in number of studies conducted about management accounting practices, "Contingency theory" is mostly applied, a theory whereby in order to ensure the effectiveness of management accounting within a company, the used management accounting practices need to be adjusted to the relevant constraints of the country (i.e. cultural, strategic, economic, political and technological factors, regulations, standards, policies of a country, etc.), economic factors including the technological adaptation of the society and the area as a whole.

2.3.2 Agency theory

Agency theory is one of the oldest theories recognized in the management and economy field (Brahmadev and Leepsa, 2017); it's a theory arguing about problems arising in the organization due to separation between managers and owners' responsibilities (Adams and Moore, 2018). And It's due to the fact that owners usually surrender their responsibilities to managers, which may later result with "conflict of interests". However, the following factors causes the presence of conflict of interest in the organization: ownership' separation from control, opposite risk preferences, moral hazards, information asymmetry and decision-making (Adams and Moore, 2018). However, linking this theory (agency) to the present study, it's necessary to note that MAPs such as: Performance evaluation and measurement system provide accurate and timely information to owners enabling them to have control over every transaction happening in the organization; and MAPs advise the company on any risk to occur and may provide decisions on mitigating these risks (Brahmadev and Leepsa, 2017). With accurate evidence, bank managers from Southeast Asian countries confirmed in the study conducted by Islam *et al.*, (2020), that "an

enhanced flow of transparent accounting information from MAPs can improve managerial effectiveness in any organization".

2.3.3 Porter's competitive forces theory

Developed by Michael, E. Porter in 1979 in his book titled: "How competitive forces shape strategies". Considered in many studies as milestone (cornerstone) of competitive analysis. In brief, Kasai and Chauke (2017) indicated that because of the competition influence in actual business environments, retail industries need to adjust immediately to changes brought by customer trends and new technology.

According to Isabelle, Horak, McKinnon and Palumbo (2020), the more competitive (i.e., competition rivalry) the market become, more threat of new entrant's organizations expect. Note that, the newer entrants the organization experience, the more the bargaining customers' power become. However, there is a power that suppliers possess to drive the price higher in the markets: bargaining power of suppliers. Nevertheless, if customers focus on buying more on suppliers offering reasonable prices, that calls upon a threat that severely diminish the power of suppliers: threat of substitute products" (Isabelle *et al.,* 2020).

However, few cost (management) practices such as: planning and budgeting, cost leadership, differentiation and strategic cost management were helpful in enabling organizations to make internal decisions and face competitive entrants (Stead et al., 2018; Martínez *et al.,* 2017).

2.3.4 Stakeholder theory

A stakeholder is simply defined as an individual or any group that can affect and be affected by organizations' objectives and activities (Freeman, Harrison and Zyglidopoulos, 2018). Biscaia, Hedlund, Dickson and Naylor, (2018) suggest that as a part of retail stores' practices, managing interests of many groups of stakeholders should be positively associated with corporate practice, performance and sustainability.

However, Biscaia *et al.,* (2018) indicated that pressures from various stakeholders (investors, suppliers, communities, banks, SARS, customers, etc.) impact highly the running of all retail stores (maybe positively, and why not negatively?); but with adequate management accounting

practices (MAPs) used, such as performance management system, balance scorecard (BSC) or capital management system, a significant positive relationship and activities' management with stakeholders can be assured and guaranteed (Beer and Micheli, 2017).

2.4. Theoretical Framework: Contingency Framework

In this study, the contingency framework is the most commonly used because the study of management accounting practices in retail stores, focussing on the usage point of view calls KwaZulu-Natal retail stores to adapt and shift to technology advancement, understand environmental uncertainty and crisis and apply management accounting practices capable to respond to these conditions, being knowledgeable on how to deal with market competition, understand cultural influences on retail stores day-to-day sales of products or services rendered, emphasize on the organisational structure to follow when introducing products in the retail market and establish information systems and control systems to use in retail stores when managing operations; by which the above mentioned factors are some of contingent factors available in the MA environment (Otley, 2016; Kuttner and Feldbauer-Durstmüller, 2016). Thus, the contingency theory is most suitable for this study in forming the theoretical framework.

2.5. Summary of Review and Identification of Gap

In summary, information from Management Accounting Practices (MAPs) have been concerning the accounting firms and industry; but with the expansion of the MA field and the efficiency and effectiveness of MAPs, more studies have been conducted in many other industries, and some of MAPs studies were conducted in a single country, others in 2 or more countries, etc. (Stead *et al.,* 2018; Sameh, 2017; Jeon, 2016, etc.). In South Africa, MAPs' studies were conducted with different authors in different firms (Waweru and Uliana, 2016; AlKhajeh and Khalid, 2018; Maziriri and Mapuranga, 2017; etc.). However, in line with this study, Waweru and Uliana (2016) contributed in the MA body of knowledge by examining the MA change in 5 retail stores in South Africa. Nevertheless, this research work is based in South Africa, KwaZulu-Natal Province, aiming

to evaluate the extent at which the usage of MAPs facilitate the flow of information for internal reporting in retail stores.

However, this research work had shown that retail stores are amongst the most competitive and profitable industries in the world for business investors (Stead *et al.*, 2018). In order to overcome the competitive conditions challenging this industry, retail stores must invest more in technology and business process development (Ishfaq *et al.*, 2016). Technology is evolving day-after-day, and this evolvement affected many fields including the MA field. This technology evolvement has brought up many changes, which updated the routine uses of systems previously adopted in the MA industry. Many MA techniques are available in the MA environment for use as previously discussed, such as: Total Quality Management (TQM) system, Activity based Costing (ABC) system, Balance Scorecard (BS), Throughput Accounting (TA), Customer Relationship Management (CRM) system, Economic Order Quantity (EOQ) system, Marginal and traditional costing system, Cost Volume Profit (CVP) system, traditional/absorption costing system, Product Life Cycle, Activity based management (Hussein, 2018; Sameh, 2017; Nkundabanyanga et al., 2017; Waweru and Uliana, 2016; Jeon, 2016; etc.). Nevertheless, these MAPs are useful in retail stores, but the store must use the practice (s) that meet(s) their needs and suits their business operations and environments (Stead *et al.*, 2018; Waweru and Uliana, 2016; Miller, 2017).

In addition, all changes that have happened particularly here in South Africa were in line with the same changing conditions that occurred in 1994 after the new South African (SAn) government reformation period (Waweru and Uliana, 2016). However, companies being requested to shift to changes has been the reason for many barriers hindering the usage of MAPs. One of the major problems hindering the usage of MAPs is high usage rate of traditional management accounting practices (Johnson and Iyami, 2019) caused by the lack of knowledge of MAPs. The fact that there is no much literature or studies known providing knowledge of such factors hindering the proper usage of MAPS in KwaZulu-Natal retail stores, this study will be motivated to provide knowledge contributing to the body of knowledge in the context of KwaZulu-Natal retail stores. Consequently, KwaZulu-Natal retail stores experience challenges in managing costs and maintaining stocks at hand (case of stock shortages, obsolescence stocks, etc.) due to the lack of proper inventory systems and poor customer information management strategies used

(Makrygiannakis and Jack, 2016; Amarantou, Kazakopoulou, Chatzoudes and Chatzoglou, 2018; Tarver, 2019; Rojas, 2019).However, some of the major barriers towards the usage of MA are lack of knowledge (Karadag, 2015) and anxiety feeling (Makrygiannakis and Jack, 2016).

In South African retail stores, there is an excessive use of traditional MAPs which drive number of stores not to adapt with advanced MAPs. Consequently, it pushes many retail stores to have difficulty in managing costs, revenues and stocks at hand and inability to maintain an efficient internal and external communication (interaction) with their users (Makrygiannakis and Jack, 2016; Amarantou *et al.,* 2018; Tarver, 2019; Rojas, 2019).

The proposed contingency framework was used in this study, taking in consideration all necessary factors, i.e., technological systems available in the MA environment, empirically proven and found useful in meeting the KZN retail stores' needs. However, these MAPs used facilitate information flow in retail stores, help retail stores sustain and face crisis, economic and environmental conditions, and assist retail stores and many other organizations in managing accurate records of costs incurred, revenues earned and stocks at hand, and assist in many other utilities and advantages as previously highlighted.

Unfortunately, many South African (SAn) organizations understand the theoretical part of MAPs as taught in tertiary institutions and universities but they do not apply them in practice, and still rely in the usage of many traditional MA practices; together with the lack of knowledge of the usage of contemporary management accounting practices in KwaZulu-Natal retail stores are the gaps that are being filled (bridged) by this study in the existing MA body of knowledge, demonstrating how MAPs used does not assist owners and managers to have a successful operational information flow in retail stores, but also ease the internal and external communication between retail stores and their users (internal and external) and further respond to environmental challenges, such as: competition, financial crisis, etc.

To ease the navigation, the next chapter will provide the research methodology applied in this study.

CHAPTER THREE

RESEARCH METHODS

3.0. Introduction

This chapter reveals the research methodology. Firstly, it explains the research design applied in this study, the research participants, the sample size, sample techniques, data collection techniques, data collection plan and then followed by the data analysis techniques. This chapter further discusses the reliability and validity of data, reveals the anonymity of this study and presents the ethical considerations and clearance requirements for collecting data in KwaZulu-Natal retail stores.

3.1.   Research Design

In this study, a cross-sectional design is used based on its comparison point of view (data from different retail stores). According to Ammar (2017), a cross-sectional study design is the best type of research design as it allows the researcher to examine the prevalence of many outcomes or data collected from many subjects in a single point in time.

However, the "pragmatist research paradigm" is followed in this study. It means that this research will use the mixed method research design made up of both qualitative and quantitative data analysis techniques. The mixed research model used in this study is the "concurrent triangulation model", which is explained below.

Closed-ended 5 Likert scale questions in conjunction with interview questions is required in the questionnaire. The quantitative data analysis which is a data analysis dealing with numerical data to find averages, statistics, make predictions and generalize results to wider population

(Bernerth, Cole, Taylor and Walker, 2018) is based on data collected from a set of closed-ended 5 Likert scale questions sent in Mail survey. Whereas the qualitative data analysis which is an analysis dealing with the exploration of ideas, experiences in the fields, observations from a wider population (Bernerth *et al.,* 2018), is based on data collected from interviews. However, the research design assists the researcher in collecting data, analysing data and measuring data.

3.1.1. Mixed research Model: Concurrent Triangulation Model

Figure 2. Concurrent Triangulation Model
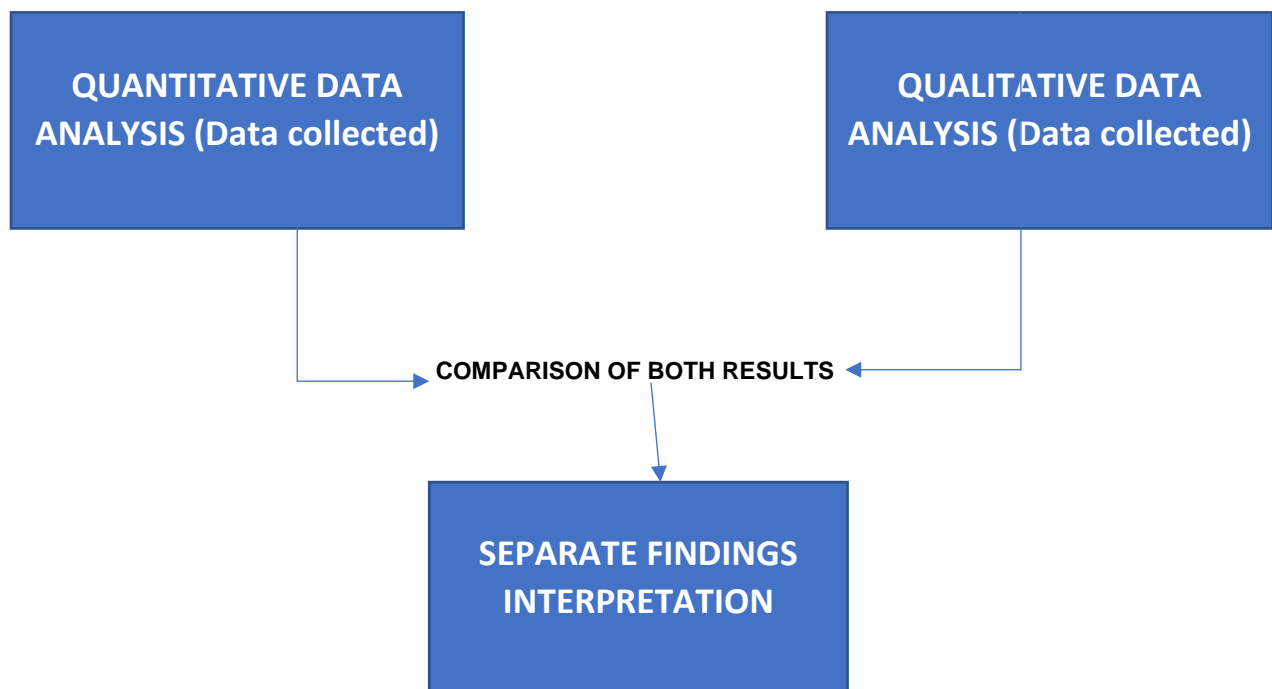
Figure 2 above is an illustration of the concurrent triangulation design type of mixed model used by the research in this study. According to Almeida (2018), the concurrent triangulation design is one of the best mixed research design as the research firstly collect quantitative and qualitative data at the same period of time, secondly compare findings from quantitative data to the results of qualitative data and finishes by completing a separate analysis for between quantitative and qualitative data. This process ensures that a robust and efficient transmission of accurate findings is being provided in research (Almeida, 2018).

3.2. Research participants

According to Blades, Stritzke, Page and Brown (2018), a research participant is a person who participates in a human subject research by being the target of an observation by the researcher.

In this research work, the participants are the managers of KZN retail stores who are required to respond to the questionnaire per each participant. It is worthy of note that it is not an obligation for the participants to be part of this survey. Participants can participate voluntarily.

However, Blades *et al*., (2018) indicated that the respondents' participation to a study has never been easier as many researchers expect. For that reason, the researcher in this study conducted the recruitment process electronically by firstly explaining the motives of conducting this study to managers of KZN retail stores. Secondly, a globally used electronic software, "Monkey Survey", is used by the researcher to expedite the questionnaires to participants who were identified in the DCC Catalogue. The researcher made sure that a mail attached with the survey link box are sent to the participants allowing them to start or cancel the survey.

In addition, the DUT ethical consent letter is sent to all research participants ensuring them that their identity and information are kept confidential after responding to the research questionnaires. Then, once the respondents fully understand their responsibility and what they are expected to do, they can voluntarily complete the survey by clicking start or cancel by the survey link box. However, if respondents need assistance or experience problems in answering the questionnaires, the researcher is ready to be contacted so that more clarifications are provided.

3.3. Sample size and Sampling techniques

3.3.1. Sample size

After Nigeria, the South African economy is the largest economy in Africa (Mafini and Dhurup, 2015); because of its most established retail market and the highest consumer spending in Africa (Mafini and Dhurup, 2015). However, despite the changing environmental and economic conditions, retail sales continue to grow driven by low inflation and low interest rates (Dubihlela and Ezeonwuka, 2018). The retail industry of the local economy contributes to about 14,4% of the South African Gross Domestic Product (GDP) and approximately 2 825 000, which is 22% of

the national labour force of persons are employed in the retail stores throughout the country (Dubihlela and Ezeonwuka, 2018).

However, a simple size is defined as the number of elements to participate in a research. According to The Gain Report, prepared by a reporter, Ntloedibe, Margaret (2018) in: "South African retail food industries", South Africa has approximately 30 retail stores listed in the Johannesburg Stock Exchange (JSE), South Africa (Data available in: www.jse.co.za), but only a sample of 21 out of the 30 listed retail stores was visited because other retail stores are not accessible in KwaZulu-Natal. Therefore, the selection of the sample size by the researcher engaged only 21 retail stores listed in the JSE that were easily accessible in the KZN Province, with also minimum number of 10 employees and a maximum number of 250 employees. The researcher best chose to select KZN retail stores with a range of 10 to 250 employees because after the outbreak of the Covid-19 pandemic in 2020, the South African government has imposed strong lockdown regulations which firstly drew the closure of many South African organizations. Thereafter, organizations that subsisted were forced to downsize the number of available staffs employed during the outbreak due to the lack of enough financial resources and crisis. This, simultaneously happened also in KZN retail stores. Therefore, only 21 retail stores are selected as a sample size in this study.

Please note: The table 1 drawn below is an illustration of the way the researcher had selected the sample size to respond qualitative and quantitative data. However, 5 managers in different branches of each of the 21 retail stores (totalling a sample of 105 managers) are selected as a sample responding to 1-questionnaire each (made up of a set of closed-ended 5 Likert scale questions together with interview questions), which include: account managers, administration managers, inventory managers, controller managers and Branch managers. Therefore, 105 questionnaires were administered in this study.

Nevertheless, the researcher only interviewed 1-account manager in each of the visited retail stores (totalling 21 account managers interviewed in all the 21 retail stores). However, the researcher selected 1 account manager in each of the 21 retail stores to participate in the interview process, because the nature of this study evaluating management accounting practices

in KwaZulu-Natal retail stores is close and mostly concerned with any of individual staffs occupying the finance or accounting positions in retail stores to be fully aware of MAPs and have strong requisite knowledge of these MAPs' usage to manage stores' costs and revenues, financial performance and sustainable information flow of KwaZulu-Natal retail stores meeting the last (4th) objective assigned to be achieved in this study through qualitative data findings.

Table 1. Sample size for quantitative and qualitative data

Managers To be surveyed	Manager Selected per Store	Total number of visited listed accessible stores	Qualitative data sample size @ account managers only	Quantitative data sample @all surveyed managers
Account	**1**		**21**	
Administration	**1**			
Inventory	**1**	**21**		
Controller	**1**			
Branch	**1**			
Total managers per store	**5**			**105**

Source: Researcher's compilation (2021).

Please Consider:

Qualitative data sample size @ account managers only = Manager selected per Store * total number of visited listed accessible stores (1 * 21=21).

Quantitative data sample @all surveyed managers = Total managers per store * Total number of visited listed accessible stores (5 * 21= 105).

3.3.2. Sampling techniques

This study used the "convenience sampling technique", a non-probability technique enabling the researcher to select a sample partaker of the population that is close to hand (Etikan, Musa and Alkassim, 2016). In this research work, this non-probability sampling technique is used on the quantitative data, i.e., closed-ended 5 Likert scale questions sent in the mail survey.

This study also uses the "cognitive response interviewing", which is defined as an evidence-based method of examining respondents' understanding and interpretation of survey items (Sanders Thompson, Ackermann, Bauer, Bowen and Goodman, 2020). However, this qualitative data evidence-based method is performed on 21 account managers only to be interviewed in all the 21 retail stores.

3.4. Data collection techniques

This study uses the quantitative and qualitative research method in collecting data. The quantitative method comprises of closed-ended questions that will be sent via mail survey Monkey. However, this study uses the "primary data collection method" as data will be strictly collected by the researcher. Closed-ended 5 Likert questions are used in this study for the purpose of facilitating the ranking levels (Kumar, 2014), starting from (1) strongly disagree, (2) disagree, (3) normal, (4) agree and (5) strongly agree. Respondents having the option to choose whichever answers from the ranking levels (1 to 5) is one of the biggest advantages of using the closed-ended 5 Likert scale questions (Kumar, 2014). Nevertheless, Dalati and Gómez (2018) suggest researchers to ensure that the design and layout of the questionnaires is simple, short and straight forward to avoid misunderstandings from the respondents.

However, it is noteworthy that in times of considerate delay during the collection of data using the Survey Monkey, which is due to respondents not willing to answer email sent to them, or managers' busy work schedules at the retail stores or Survey Monkey software updates which may result in data previously saved in the software storage to be lost, some questionnaires were handed over by the research physically at the retail stores. Further, it is noteworthy that a follow-up email was sent to the retail stores in a period between three (3) weeks to 1-month after the initial date of questions' expedition, to ensure a smooth progress over the processing of answers and a reasonable time for data being collected.

The KwaZulu-Natal Province is the area of physical focus during data collection. The researcher conducted the interviews with further results and acknowledge whether the respondents were aware and knowledgeable of all management accounting practices that were asked in the questionnaires. This is done the very same day for about 15 minutes after receipt of answers. And these qualitative data will be collected from interviews conducted with the account manager only to each of all the 21 retail stores.

However, due to the Covid-19 pandemic obliging the social distancing between people as requested by the South African National Health Department, physical interview was not conducted in the visiting retail stores. Therefore, the researcher and retail stores' account managers made arrangements on conducting a Zoom (Skype or Web) interview; as this process served as the way to meet the objective of conducting an interview, which are: reducing participants' misunderstandings and further check upon the accuracy of the reported answers (Dalati and Gómez, 2018).

3.5. Data collection plan

Moser and Korstjens (2018) simply revealed that the data collection plan helps the researcher to ensure data collected are useful and appropriately collected. In this study, data were collected electronically via Survey Monkey (or physically as previously highlighted). It is important to note that only respondents identified in the DCC Catalogue are eligible to complete the Monkey survey (sent via mail). However, this data collection process initially required the approval of the DUT Faculty of Accounting and Informatics Research department committee.

To ensure a quick data responses processing, after 3weeks to 1-month period, a follow up letter will be sent to all surveyed retail stores. All questionnaires will be typed in English language and accompanied with a DUT consent letter to ensure the managers of retail stores that their identity and information will be kept confidential. Note that answers are expected to be answered in English language as well. Interviews will be done 15 minutes after the collection of answers with the account manager only; else, arrangements for a Zoom (Skype or web) interview will be made.

To ensure that data collected are safely kept, the researcher made sure that the collected data are stored electronically in the flash drive and computer Hard drive encrypted with a personal

password. One more copy was sent electronically to the researcher supervisor. All data collected are then stored at DUT Faculty of Accounting and Informatics for a 5-years period to meet the minimum time to keep an information stored as per accounting data principle. This research work can be disposed off after the 5-years period following instructions stipulated in the DUT ethical clearance committee.

3.6. Data analysis techniques (Instruments)

This part of the study reveals how data are analysed and the techniques used to analyse data. The analysis conducted includes capture and transformation of raw data, check of the missing data (gap filling) and check of data for accuracy (McKubre, Macdonald, Sayers and Macdonald, 2018).

However, the qualitative data collected from interviews are analysed using NVIVO. Woolf and Silver (2017) defined NVIVO as a data analysis technique in a form of software program specifically used for qualitative data analysis, used for analysing unstructured data, text, image data, video including interviews, focus groups, surveys, Journal articles and observations and theatre. Whereas the quantitative data collected from closed-ended 5 Likert scale is analysed using the **inferential statistics** [Statistical Package for the Social Sciences (SPSS) and the Smart PLS software], which are statistics allowing the researcher to test hypothesis facilitating the drawing of interpretations from the sample to the large population selected in the research work; and this is done through the pie charts, graphs, bar graphs, figures and tables.

3.7. Reliability and Validity of data

3.7.1. Reliability

According to Belotto (2018), reliability is the extent to which the test measurement generates the similar trustworthy and dependable results over time; in which this study tested the construct reliability. However, to ensure the degree of construct reliability for each constraint on quantitative data from closed-ended 5 Likert scale questions, the "Cronbach's Alpha (CA) test" and the "composite reliability (CR) test" is done. Rosti-Otajärvi, Hämäläinen, Wiksten, Hakkarainen and Ruutiainen (2017) highlighted that the results from questionnaires are tested as reliable, when the Cronbach's Alpha test is 0.60 - 0.70 and above (as good), 0.80 and above

(as better) or 0.90 and above (as best or confidence interval level of reliability); same criteria apply for the composite reliability test as well. However, Rosti-Otajärvi *et al*., (2017) suggested that 0.95 and above Cronbach's Alpha test is the most excellent and reliable result level measured in research.

3.7.2. Validity

Validity, known as truthfulness, is a degree of measure revealing how truthful a mental picture of an idea fits with what an author or publishers do to measure it (Belotto, 2018). However, two major validity tests are conducted in this study, which are: convergent validity and discriminant validity. According to Hair, Hult, Ringle and Sarstedt (2017a), a convergent validity is the extent to which a measure is related to many other measures of the same phenomenon. In this case, one indicator must be positively correlated with other indicators of the same variable to achieve this validity. According to Kock and Hadaya (2018), the convergent validity is acceptable when the latent variables values of the average variances extracted (AVE) achieved stand at the least threshold of 0.50 or more. Whereas Kock (2015) argues that the discriminant validity is achieved by not only associating one measure related to other measures of the same phenomenon, but by also associating one measure not related with many other measures of different phenomenon. In this case, the discriminant validity is achieved by using Fornell and Larcker criterion, which emphasizes on the comparison of the square roots of the AVE values and the inter-constructs correlations values.

Furthermore, the "content validity" is measured in this study, by selecting 3 lecturers experts on the MAPs topic from the Department of Management Accounting (DUT) , who is asked to provide comments on the questionnaires' formulation, approve if the questionnaire is academically levelled (Master Degree) and check if questionnaires meets the research objectives and literature review. According to Farquhar, Michels and Robson (2020), the content validity is the extent at which items on the test are fairly representative of the whole domain the test is seeking to measure. Moreover, other trustworthiness constructs such as: transferability, conformability, dependability and credibility are used for validating qualitative data (interviews). To further ensure the validity of this present research work, it's necessary to highlight that face-to-face contacts with the account manager of each retail stores took place mostly in times of interviews

being conducted, i.e. "face validity"; face to face interview is not possible, hence a Zoom (Skype or Web) interview is arranged.

3.8. Anonymity

The anonymity part of this study is to ensure to the participants or respondents that their identity is protected; and they are identified in this paper as being anonymous. In addition, the identity of all 21 retail stores surveyed as well not stated during the presentation of finding for comparisons' purposes, but was simply presented as data from "KwaZulu-Natal retail stores".

3.9. Ethical Consideration

The four major ethical aspects are being taken with much consideration in this study, to ensure there is: no harm to respondents, no invasion of privacy, no deception and no lack of informed consent.

3.10. Ethical Clearance letter

In order to administer questionnaires in the 21 retail stores visited, an ethical clearance letter is administered; this letter was received from the Faculty of Accounting and Informatics, Department of Management Accounting, at Durban University of Technology (DUT).

3.11. Summary

This chapter presented the research design applied from primary data collected made up of quantitative and qualitative data. A description of simple size and sampling techniques was done. Quantitative and qualitative data is collected from respondents; and is analysed using the SPSS & Smart PLS and Nvivo software respectively. The reliability, validity and anonymity of respondent's data was ensured and all ethical criteria and recommendations are taken with much consideration.

To ease the navigation, the next chapter provides the analysis and interpretation of data findings.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION OF FINDINGS

4.0.   Introduction

This chapter presents the findings of the analyzed data which were collected from the retail stores and provides the discussion and interpretation of these findings thereof. The primary aim of this study was to evaluate the extent at which the usage of management accounting practices (MAPs) facilitate the flow of information for internal reporting in KwaZulu-Natal (KZN) retail stores. To achieve the aim and objectives of this study, four research questions (which were extended into 7 hypothesis formulated by the researcher) were asked in this study, which are:

I.   What factors hinder the usage of management accounting practices in KwaZulu-Natal retail stores?

II.   What are the management accounting practices used in KwaZulu-Natal retail stores?

III.   What changed in the practice of management accounting in KwaZulu-Natal retail stores and what are the benefits towards the change thereof?

IV.   And how does the change in the practices of management accounting impacts on KwaZulu-Natal retail stores' competitiveness, financial performance, costs and revenues allocation and sustainable information flow?

To achieve the research objectives and answer the above-asked research questions, two categories of data were collected and analyzed: quantitative and qualitative data; and the results collected are presented in bar charts, figures and tables. The researcher made questionnaires for 105 respondents which was distributed by giving a questionnaire to each respondent. The

quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26 and Smart PLS 3.0. The qualitative data was analyzed using the Nvivo software.

4.1. Respondents' response rate

21 retail stores were selected as sample size using the convenience sampling technique; but only 5 managers were selected in each of the 21 retail stores (totaling 105 managers) were selected to respond to 1-questionnaire each (totaling 105 questionnaires submitted). However, out of 105 questionnaires administered, only 101 questionnaires (101 respondents) were answered, which gives a good response rate of 96.2% throughout this study. And out of the 21 account managers to be interviewed, only 19 managers participated in the interview process (which is 90.48% good response rate); and the 2 account managers were among these 4 who did not want to participate saying that they are avoiding covid-19 transmission risk.

To ease the navigation, the analysis of the demographic section of the questionnaire are presented in the section below.

4.2. Section A: Analysis and Discussion of Results from Demographic Data

The demographic information elicited in this study include retail stores' business sector, respondents' gender, respondents' education completed, retail stores' years of operation, respondents' current position, respondents' work of experience in their current position and the uniqueness of traded products. These demographic data for all the respondents from all 21 retail stores surveyed were analyzed using bar charts and presented with inference

4.2.1. Business Sector

The respondents to the questionnaires were asked to indicate which kind of business sector their retail stores are operating in. And as it can be seen in Figure 3, the largest proportions of 53 out 101 respondents (52.5%) were from the clothing sector, followed by the Food and Beverage sector with 26 out 101 respondents (25.7%), while respondents in the home furnishings sector were 12 our 101 equivalent to 11.9%, and the remaining proportions of 10 out 101 respondents (9.9%) were from the Hyper/Super market sector.

Figure 3: Business Sector

Business sector

	Food & beverage	Clothing	Hyper/super market	Home furnishing
■ Frequency	26	53	10	12
■ Percentage	25,7	52,5	9,9	11,9

■ Frequency   ■ Percentage
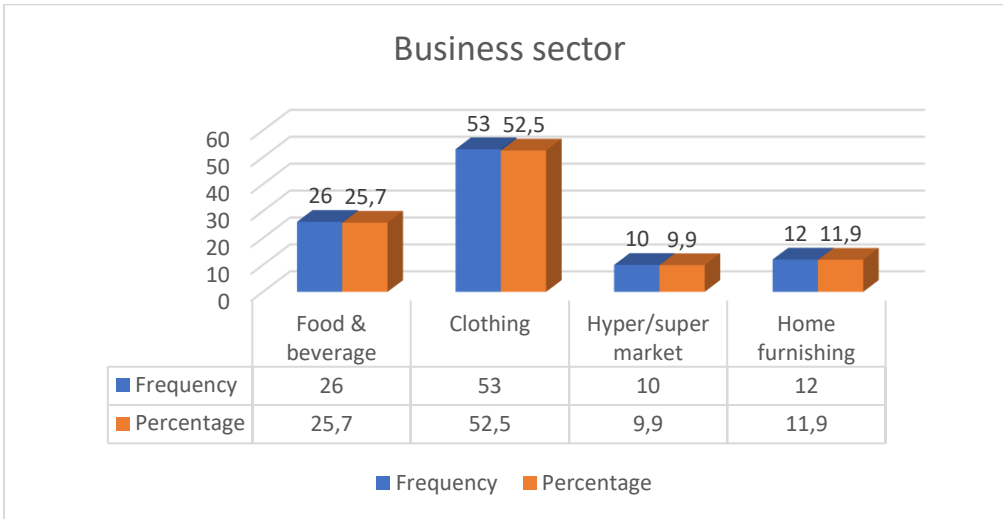
Source: Researcher's compilation from SPSS version 26 [research findings]

4.2.2. Gender

The respondents to the questionnaires were asked to tick their gender type. And the results of the survey as shown in Figure 4. revealed that majority of respondents 64 out of 101 respondents equivalent to 63.4% working in KwaZulu-Natal retail stores at the management level positions were female; and only the remaining 37 out 101 respondents equivalent to 36.6% were male.

Figure 4: Gender

Gender

	Frequency	Percentage
Male	37	36,6
Female	64	63,4
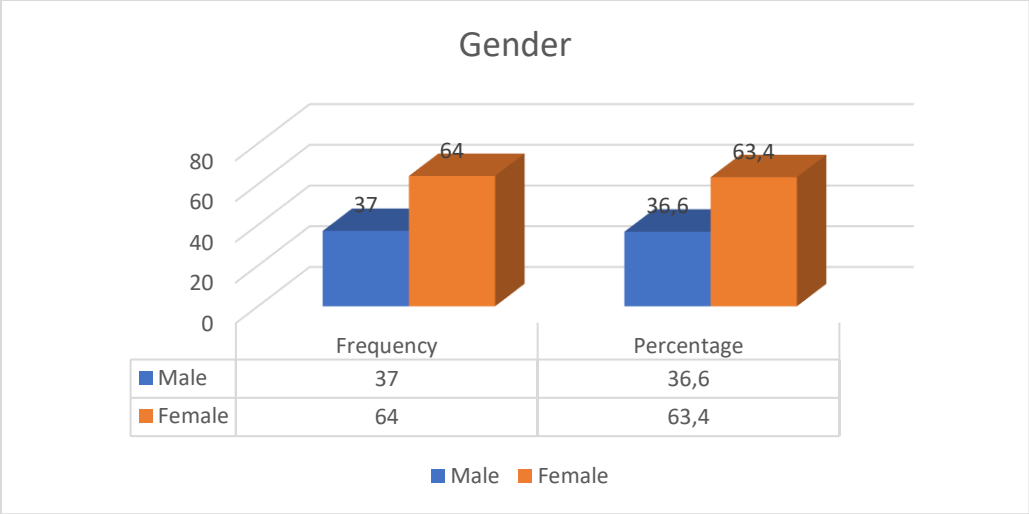
Source: Researcher's compilation from SPSS version 26 [research findings]

4.2.3. Education

In this sub-section, the survey respondents were asked about their highest level of education completed, and the analyzed data in Figure 5 showcased that majority of respondents 37 out of 101 which is 36.6% hold the National Diploma, followed by 31 out 101 respondents which is 30.7% who hold the Grade 12 certificate, and then 30 out of 101 respondents equivalent to 29.7% hold the Bachelor's degree. And Finally, 3 out 101 respondents which is 3% completed qualifications not mentioned on the questionnaires surveyed: N5, N6 and Advanced Diploma. However, looking at the level of education options mentioned on the survey questionnaires, the analysis findings revealed that none of respondents completed a Master's and Doctorate Degree level.

Figure 5: Education

Source: Researcher's compilation from SPSS version 26 [research findings]

4.2.4. Retail store operating years

In this sub-section, the respondents were required to tick the number of years that the retail stores have been operating since the existence. As per Figure 6, the largest proportion of 56 out 101 respondents (which is 55.4% of retail stores) have been operating for over 30 years, followed by the second largest proportions of 29 out 101 respondents (which is 28.7% of retail stores) that have been operating between 11 to 20 years. The third and fourth larger proportions were 10 out of 101 respondents (which is 9.9% of retail stores) and 5 out 101 respondents (which is 5% of retail stores) that have been operating between 21 to 30 years and 6 to 10 years respectively. The least proportion of 1 out all 101 respondents (which is 1%) was the only retail store that has been operating between 1 to 5 years; this indicate that a large number of KwaZulu-Natal retail business sectors have been existing for long and that have facilitated them to build their brand or name, keep their reputation and good image, and maintain their market strengths while facing external pressures.

Figure 6: Retail stores operating years

Retail store

	1 to 5years	6 to 10years	11 to 20years	21 to 30years	More than 30years
Frequency	1	5	29	10	56
Percentage	1	5	28,7	9,9	55,4
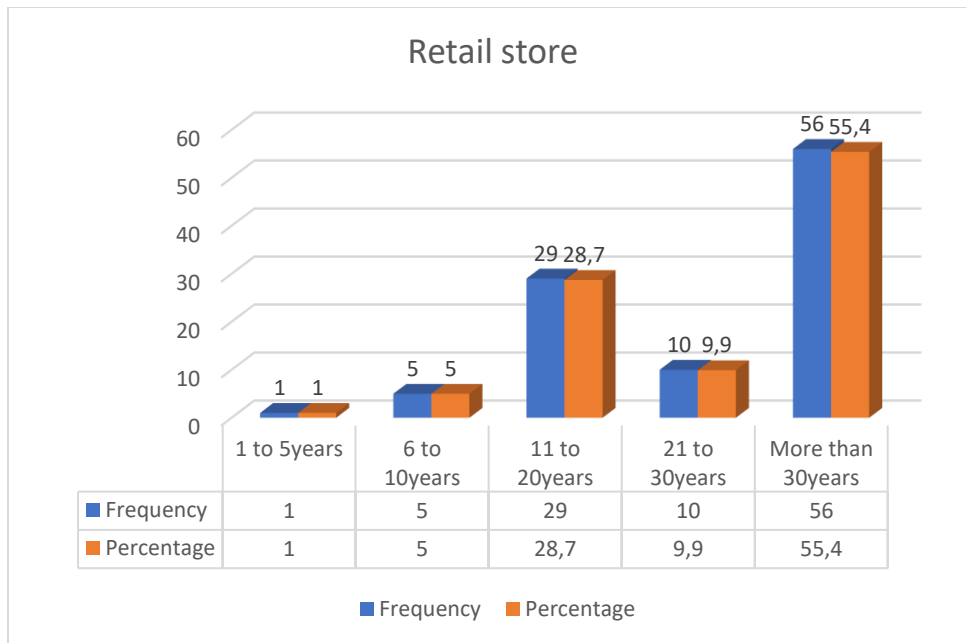
Source: Researcher's compilation from SPSS version 26 [research findings]

4.2.5. Current position

In this question, the respondents were asked to tick the current position occupied in their retail stores; and as previously highlighted in chapter 3. Research Methodology, the survey questionnaires were particularly focused and sent to respondents occupying the level of Management position in KwaZulu-Natal retail stores. 5 managers in each of the 21 retail stores (totaling 105 managers) were selected to respond to 1-questionnaire each. But 101 managers participated. However, as shown in Figure 7, the analyzed data revealed that the largest number of proportion of 20 out of 101 managers equivalent to 19.8% were Controller managers, followed by the second largest number of surveyed respondents with 19 out of 101 equivalent to 18.8% were for both Account managers and Inventory managers respectively. Finally, 13 out 101 managers equivalent to 12.9% were Branch Managers; and other 13 out 101 which 12.9% of surveyed managers occupied other management positions level (i.e. which 6 were Assistant managers, 3 were Cash clerk managers, 3 were Floor managers and 1 CEO).

Figure 7: Current position

Current position

	Account Manager	Branch Manager	Admin Manager	Contoller Manager	Inventory Manager	Other, specify
Frequency	19	13	17	20	19	13
Percentage	18,8	12,9	16,8	19,8	18,8	12,9
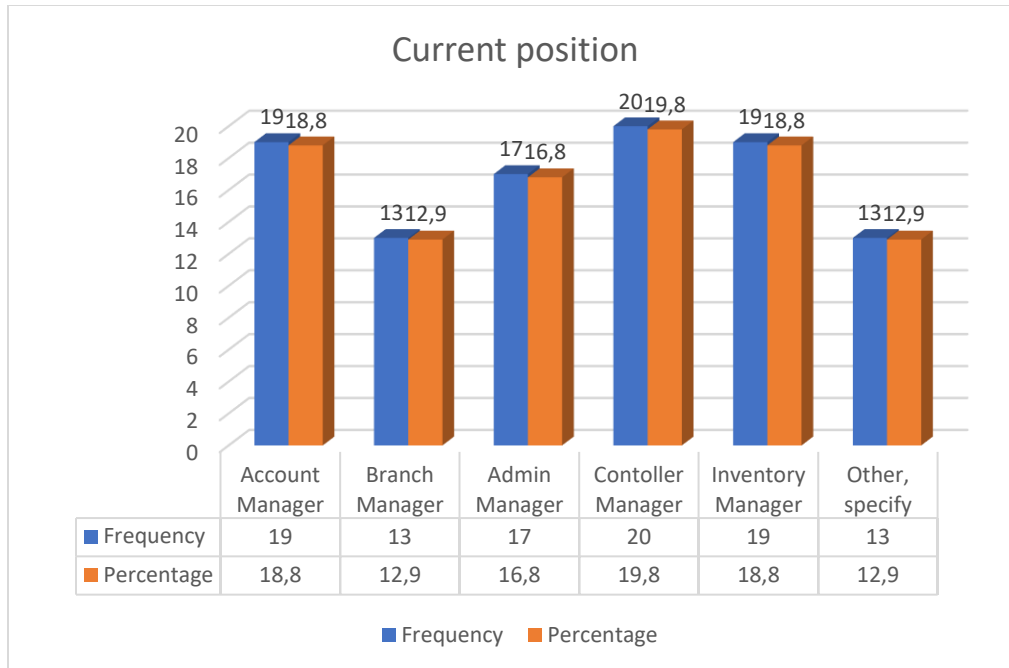
Source: Researcher's compilation from SPSS version 26 [research findings]

4.2.6. Work experience

In this sub-section, the respondents to survey questionnaires were asked to indicate the number of years of experience working in the current position occupied. As it can be seen in Figure 8, the analyzed data revealed that a larger number of 40 out of 101 respondents equivalent to 39.6% have 6 to 10 years of experience, followed by 31 out 101 respondents equivalent to 30.7% were 11 to 20 years' experience and followed by 27 out 101 respondents equivalent to 26.7% were 3 to 5 years of experience. However, a lower number of 3 out 101 respondents equivalent to 3% were managers with only 1 to 2 years of experience. This indicate that in order to occupy the level of management positions in KwaZulu-Natal retail stores, most of preferences are more attributed to experienced staffs as they understand better the management of products and staffs and the retail stores' strengths, weaknesses, opportunities and threats over time. However, looking at the years of experience options mentioned on the survey questionnaires, it is clear from the analysis findings that none of respondents had worked for over 20 years on their current position.

Figure 8: Work experience

60

Work experience

	1 to 2years	3 to 5years	6 to 10years	11 to 20years
Frequeny	3	27	40	31
Percentage	3	26,7	39,6	30,7

Frequeny   Percentage

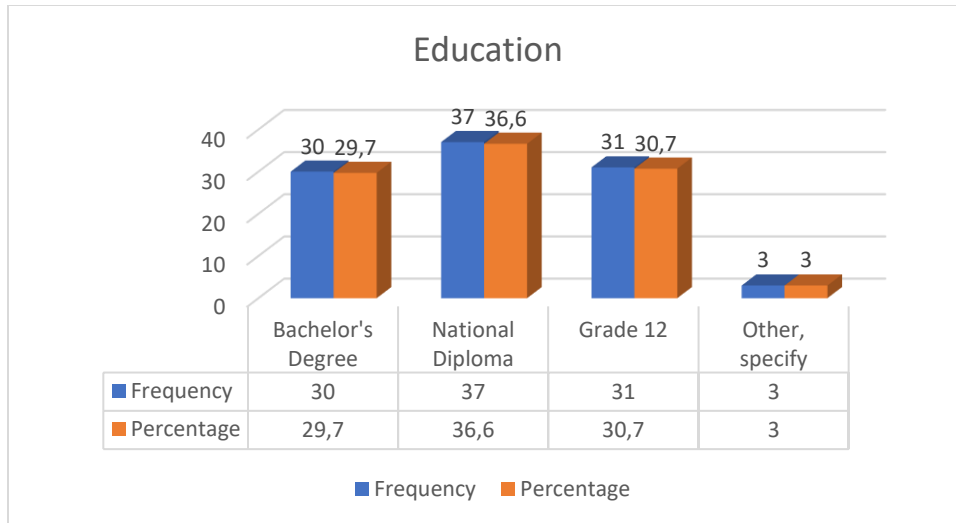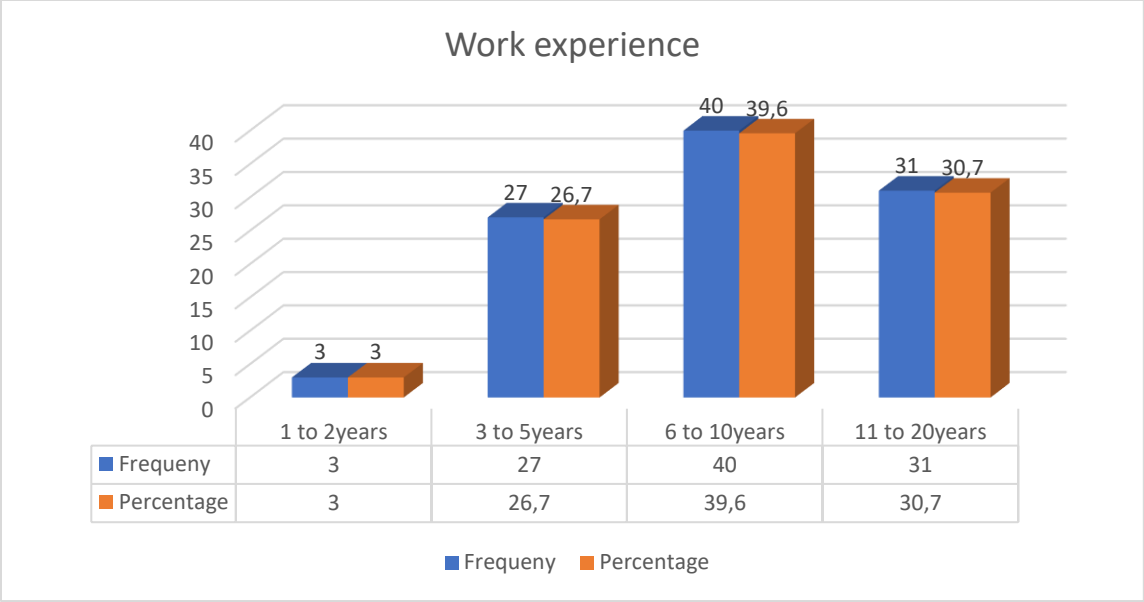**Source: Researcher's compilation from SPSS version 26 [research findings]**

4.2.7. Product uniqueness

In this sub-section, the respondents were asked to tick (Yes or No) whether the products they offer or services they render are unique or not. And as per Figure 9, the data analyzed revealed that out of the 101 respondents, all 101 respondents equivalent to 100% ticked "No", revealing that their products or services are not unique. This justifies the reason of the complex market and major competitive pressures available in KwaZulu-Natal retail business industries.

Figure 9: Product uniqueness

PRODUCT UNIQUENESS

	Frequeny	Percentage
Yes	0	0
No	101	100
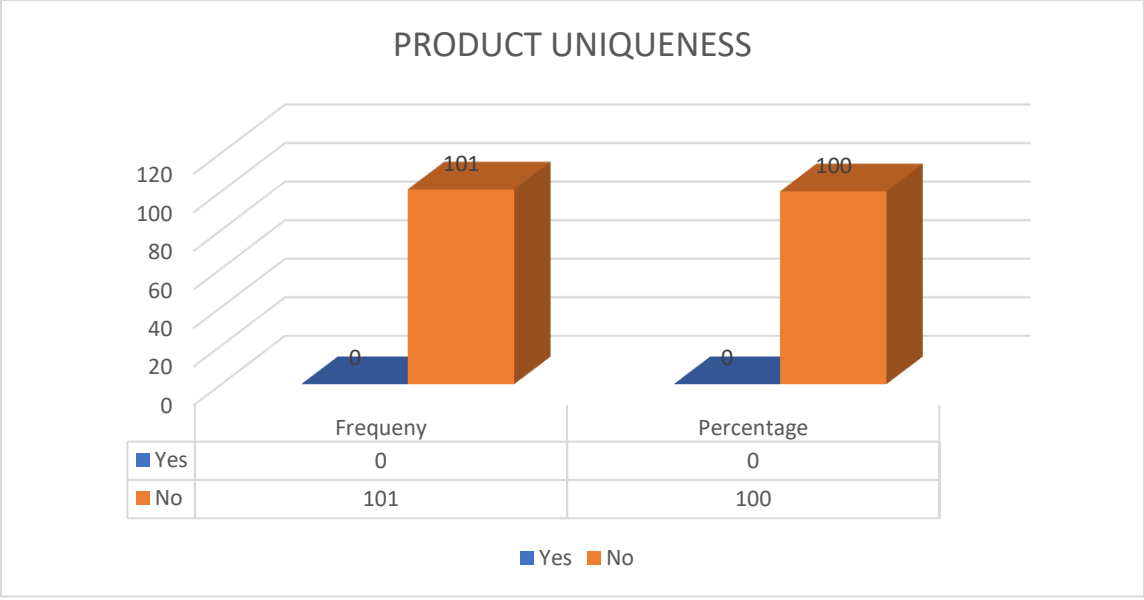
Source: Researcher's compilation from SPSS version 26 [research findings]

4.3. Section 2: Quantitative Data Analysis of Research Questions and Test of Hypothesis

This study is constructed with 4 major variables, which are: Barriers to MAPs, Cost-management practices, management accounting practices and management accounting change. These variables' descriptive analysis responses were addressed in conjunction with the researcher questions outlined right at the beginning of this chapter 4 (refer to questions in chapter 1).

Please note: Findings collected from the quantitative data are the responses collected from 5 Likert scale questionnaires in **question one, question two and question three;** and these will be addressing **the first three objectives** as formulated in chapter one. While in contrast, findings collected from the interview process constituting the qualitative data are the responses collected from the **last question four,** which in conjunction will also be addressing **the fourth objective** outlined in chapter one.

To answer and analyse the quantitative research questions, 7 hypotheses were formulated and tested. The formulated hypotheses which were tested using partial least squares structural equation modelling are presented.

H1: A significant relationship exists between the barriers to management accounting practices (MAP) and cost-management practices.

H2: A significant relationship exists between the barriers to management accounting practices and management accounting change.

H3: A significant relationship exists between the barriers to management accounting practices and management accounting practices.

H4: A significant relationship exists between management accounting change and cost-management practices.

H5: A significant relationship exists between management accounting practices and cost-management practices.

H6: Management accounting practices mediate the relationship between barriers to MAP and Cost-management practices

H7: Management accounting change mediates the relationship between barriers to MAP and cost-management practices

4.3.1. Response rate for Closed-ended 5 Likert scale questions

Table 2. Closed-ended 5 Likert scale respondents' findings based on the study literature

	OPTIONS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	BARRIERS HINDERING MANAGEMENT ACCOUNTING PRACTICES (COST-MANAGEMENT PRACTICES) USAGE IN YOUR RETAIL STORE					
1.	High usage costs of these new practices	7 (6.9%)	11 (10.9%)	18 (17.8%)	60 (59.4%)	5 (5.0%)
2.	Lack of knowledge and skills due to the store not organizing training programs	0 (0%)	1 (1%)	16 (15.8%)	43 (42.6%)	41 (40.6%)
3.	Lack of basic courses on these practices while studying in tertiary institutions	0 (0%)	1 (1%)	18 (17.8%)	38 (37.6%)	44 (43.6%)
4.	The existing systems do not have significant problems	18 (17.8%)	28 (27.7%)	39 (38.6%)	10 (9.9%)	6 (5.9%)
5.	More complexity expected from using these new practices (anxiety feeling)	8 (7.9%)	11 (10.9%)	10 (9.9%)	61 (60.4%)	12 (11.9%)
6.	No compatibility between the existing and new practice to be adopted	6 (5.9%)	16 (15.8%)	10 (9.9%)	61 (60.4%)	8 (7.9%)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
7.	Lack of software packages related to new management accounting practices	15 (14.9%)	32 (31.7%)	31 (30.7%)	19 (18.8%)	4 (4.0%)
8.	Insufficient financial resources due to lack of top management support	1 (1.0%)	0 (0%)	17 (16.8%)	41 (40.6%)	42 (41.6%)
9.	Insignificant benefits observed from using new practices	5 (5.0%)	64 (63.4%)	6 (5.9%)	7 (6.9%)	19 (18.8%)
10	Lack of trust in accounting professionals and experiments showing how to use the new package system	51 (50.5%)	36 (35.6%)	13 (12.9%)	1 (1.0%)	0 (0%)

OPTIONS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
EVIDENCE OF COST-MANAGEMENT PRACTICES / MANAGEMENT ACCOUNTING PRACTICES' USAGE IN YOUR RETAIL STORE					

	OPTIONS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	Activity-based Costing (ABC)	15 (14.9%)	65 (64.4%)	20 (19.8%)	1 (1.0%)	0 (0%)
2.	Balance scorecard (BSC)	15 (14.9%)	65 (64.4%)	9 (8.9%)	12 (11.9%)	0 (0%)
3.	Benchmarking	18 (17.8%)	73 (72.3%)	7 (6.9%)	3 (3.0%)	0 (0%)
4.	Supply Chain Management (SCM)	1 (1.0%)	1 (1.0%)	80 (79.2%)	19 (18.8%)	0 (0%)
5.	Brand Valuation	23 (22.8%)	4 (4.0%)	3 (3.0%)	68 (67.3%)	3 (3.0%)
6.	Competitor Cost Assessment	9 (8.9%	47 (46.5%)	24 (23.8%)	18 (17.8%)	3 (3.0%)
7.	Budgeting, Planning and Forecasting	0 (0%)	0 (0%)	2 (2.0%)	43 (42.6%)	56 (55.4%)
8.	Customer Profitability Analysis	2 (2.0%)	5 (5.0%)	2 (2.0%)	49 (48.5%)	43 (42.5%)
9.	Cost leadership strategy	16 (15.8%)	13 (12.9%)	63 (62.4%)	6 (5.9%)	3 (3.0%)
10.	Cost Volume Profit (CVP)	18 (17.8%)	57 (56.4%)	14 (13.9%)	8 (7.9%)	4 (4.0%)
11.	Competitor Performance Appraisal	59 (58.4%)	36 (35.6%)	4 (4.0%)	1 (1%)	1 (1.0%)
12.	Customer Relationship Management (CRM)	0 (0%)	3 (3.0%)	3 (3.0%)	58 (57.4%)	37 (36.6%)
13.	Economic Order Quantity (EOQ)	24 (23.8%)	60 (59.4%)	11 (10.9%)	4 (4.0%)	2 (2.0%)
14.	Enterprise Resource Planning (ERP)	13 (12.9%)	15 (14.9%)	33 (32.7%)	35 (34.7%)	5 (5.0%)
15.	Financial Accounting Statements	1 (1.0%)	2 (2.0%)	13 (12.9%)	66 (65.3%)	19 (18.8%)
16.	Inventory Management system	1 (1.0%)	2 (2.0%)	59 (58.4%)	5 (5.0%)	34 (33.7%)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
17.	Just-In-Time (JIT)	58 (57.4%)	38 (37.6%)	3 (3.0%)	1 (1%)	1 (1%)
18.	Kaizen Costing	9 (8.9%)	56 (55.4%)	18 (17.8%)	11 (10.9%)	7 (6.9%)
19.	Marginal Costing	19 (18.8%)	71 (70.3%)	8 (7.9%)	2 (2.0%)	1 (1.0%)
20.	Material Requirements Planning (MRP)	15 (14.9%)	65 (64.4%)	18 (17.8%)	3 (3.0%)	0 (0%)
21.	Penetration costing strategy	3 (3.0%)	7 (6.9%)	26 (25.7%)	59 (58.4%)	6 (5.9%)
22.	Performance Measurement/Evaluation	1 (1.0%)	4 (4.0%)	61 (60.4%)	13 (12.9%)	22 (21.8%)
23.	Product Differentiation strategy	4 (4.0%)	50 (49.5%)	17 (16.8%)	22 (21.8%)	8 (7.9%)
24.	Process Costing	2 (2.0%)	38 (37.6%)	42 (41.6%)	13 (12.9%)	6 (5.9%)
25.	Product Costing	13 (12.9%)	12 (11.9%)	8 (7.9%)	67 (66.3%)	1 (1.0%)
26.	Standard Costing	2 (2.0%)	3 (3.0%)	62 (61.4%)	9 (8.9%)	25 (24.8%)
27.	SWOT Analysis	4 (4.0%)	32 (31.7%)	26 (25.7%)	26 (25.7%)	13 (12.9%)
28.	Targeting Costing	7 (6.9%)	74 (73.3%)	6 (5.9%)	9 (8.9%)	5 (5.0%)
29.	Total Quality Management (TQM)	3 (3.0%)	8 (7.9%)	28 (27.7%)	48 (47.5%)	14 (13.9%)
30.	Zero-based Budgeting (ZBB)	33 (32.7%)	61 (60.4%)	6 (5.9%)	1 (1.0%)	0 (0%)
OPTIONS		**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
ROLES AND UTILITIES PLAYED (RESPONSES PROVIDED) BY MANAGEMENT ACCOUNTING PRACTICES (COST-MANAGEMENT PRACTICES) IN YOUR RETAIL STORE AND MANAGEMENT ACCOUNTING CHANGE IMPLICATIONS THEREOF						
1.	The store products' information is integrated throughout all departments	10 (9.9%)	48 (47.5%)	21 (20.8%)	18 (17.8%)	4 (4.0%)
2	All financial statements are automatically generated by the system in use at the store	13 (12.9%)	49 (48.5%)	26 (25.7%)	10 (9.9%)	3 (3.0%)
3.	Appropriate costing decisions are made to keep products competitive	0 (0%)	0 (0%)	6 (5.9%)	78 (77.2%)	17 (16.8%)

4.	Under and overestimation of costs are prevented and unexpected costs are eliminated	0 (0%)	74 (73.3%)	10 (9.9%)	0 (0%)	17 (16.8%)
5.	Reliable decisions applied to prevent competition from ruining the purchases / sales of store products	1 (1.0%)	0 (0%)	73 (72.3%)	11 (10.9%)	16 (15.8%)
6.	Directly respond to environmental change's negative effects on the store performance	35 (34.7%)	42 (41.6%)	2 (2.0%)	12 (11.9%)	10 (9.9%)
7.	Directly respond to governmental changes in tax implications, customs and border charges' in the country	0 (0%)	73 (72.3%)	6 (5.9%)	1 (1.0%)	21 (20.8%)
8.	Respond to cultural influence on customers' preferences and behavior	2 (2.0%)	35 (34.7%)	22 (21.8%)	34 (33.7%)	8 (7.9%)
9.	Properly plan, estimate and control budgeted costs undertaken by the store projects	1 (1.0%)	9 (8.9%)	25 (24.8%)	50 (49.5%)	16 (15.8%)
10.	Prevent/respond to customers' behavior change placing preferences on buying to "e-retailers"	21 (20.8%)	72 (71.3%)	4 (4.0%)	4 (4.0%)	0 (0%)
11.	Inform customers on new products' arrival in the store	3 (3.0%)	47 (46.5%)	30 (29.7%)	16 (15.8%)	5 (5.0%)
12.	Ability to detect profitable, unprofitable or expired products	3 (3.0%)	49 (48.5%)	25 (24.8%)	17 (16.8%)	5 (5.0%)
13.	Products systematically priced, discounts systematically generated and accurate records properly kept	2 (2.0%)	27 (26.8%)	46 (45.5%)	19 (18.8%)	7 (6.9%)
14.	Keep maintaining and managing good/higher quality costs of products	0 (0%)	0 (0%)	9 (8.9%)	77 (76.2%)	15 (14.9%)
15.	Costs and revenues are properly allocated to products or activities	0 (0%)	72 (71.3%)	10 (9.9%)	3 (3.0%)	16 (15.8%)
16.	Ensure an uninterrupted interaction between internal and external users of the store	2 (2.0%)	24 (23.8%)	24 (23.8%)	40 (39.6%)	11 (10.9%)
17.	Help the store for decision making	2 (2.0%)	15 (14.9%)	31 (30.7%)	39 (38.6%)	14 (13.9%)
18.	Correctly account for materials (inventory) supplied, outstanding and required in the store	1 (1.0%)	0 (0%)	16 (15.8%)	74 (73.3%)	10 (9.9%)

19.	Ensuring the demand supply chain process from: supply, production, inventory, capacity and distribution planning is applied and followed	1 (1%)	1 (1%)	24 (23.8%)	64 (63.4%)	11 (10.9%)
20.	Consolidate systematically the transfer (bank) transactions	12 (11.9%)	14 (13.9%)	70 (69.3%)	2 (2.0%)	3 (3.0%)
21.	Store information can be accessed anytime, anywhere and changes made are automatically updated	10 (9.9%)	56 (55.4%)	18 (17.8%)	14 (13.9%)	3 (3.0%)
22.	Respond effectively to economic factors such: inflation, devaluation,…	32 (31.7%)	51 (50.5%)	13 (12.9%)	3 (3.0%)	2 (2.0%)
23.	Prevent obsolete stocks on hand	12 (11.9%)	38 (37.6%)	14 (13.9%)	19 (18.8%)	18 (17.8%)
24.	Prevent covid-19 damages caused in retail stores by its regulations	0 (0%)	61 (60.4%)	15 (14.9%)	0 (0%)	25 (24.8%)
25.	Respond to threats from competitors as stores use the same products	0 (0%)	66 (65.3%)	13 (12.9%)	0 (0%)	22 (21.8%)
26.	Grab market opportunities and ensure sustainable decisions are provided for future market strategies	8 (7.9%)	20 (19.8%)	45 (44.6%)	15 (14.9%)	13 (12.9%)

Source: Researcher's compilation from Smart PLS 3.0 Software [research findings]

Table 2 reveals the finding outcomes from the closed-ended 5 Likert scale questionnaires administered in this study (quantitative data).

However, in terms of the results on barriers hindering the usage of management accounting practices in KwaZulu-Natal retail stores, 59.4% agreed that there are high usage costs expected to be paid when using new MAPs, which is caused by the lack of top management level as agreed (40.6%) and strongly agreed (41.6%) by the respondents and lack of knowledge to use these practices thereof as agreed (42.6%) and strongly agreed (40.6%) by the respondents. 27.7% disagreed that it is not as if the existing MAPs in use by KZN retail stores do not have significant problems, or there are insufficient benefits observed from using new MAPs (disagreed by 63.4% of respondents) or there is a lack of trust in accounting professionals and experiments (disagreed by 35.6% of respondents), neither the lack of software packages related to new MAPs as disagreed by 31.7%; but 60.4% of respondents agreed that it is because they expect more complexities from using these new MAPs (anxiety feeling).

In addition, the results in terms of the evaluation conducted assessing the evidence of usage of management accounting practices within KwaZulu-Natal retail stores, most of contemporary management accounting practices surveyed in this study and as taught in tertiary institutions or universities are not applied in KwaZulu-Natal retail stores; as disagreed **(D)** and strongly disagreed (**SD**) by respondents for: ABC (64.4% D), BSC (64.4% D), Benchmarking (72.3% D), competitor cost assessment (46.5% D), CVP (56.4% D), Cost performance appraisal (58.4% SD; 35.4% D), EOQ (59.4% D; 23.8% SD), JIT (57.6% SD; 37.4% D), Kaizen Costing (55.4% D), Marginal costing (70.3% D; 18.8% SD), MRP (64.4%; 14.9%), Target costing (73.3% D) and ZBB (60.4% D; 32.7% SD); while the outcomes from the below-mentioned commonly used MA practices are evident in KwaZulu-Natal retail stores, such: Budgeting, Planning and Forecasting (55.4% strongly agreed; 42.6% agreed), CRM (57.4% agreed; 36.6% strongly agreed), Financial Accounting statements (65.8% agreed), Penetration Costing strategy (58.4% agreed), product costing (66.3% agreed) and TQM (47.5% greed). Whereas respondents were neutral towards the usage of the below mentioned contemporary MAPs as per following outcomes in KwaZulu-Natal retail stores: process costing (41.6%), inventory management system (58.4%), performance measurement and evaluation (60.4%).

Furthermore, due to the lack of usage of proper new MAPs in KZN retail stores and the presence of many barriers hindering the usage, the respondents' outcomes in terms of the roles/utilities played by management accounting (cost-management practices and the Management Accounting Change implications in KZN retail stores were neutral in the following outcomes: MAPs assist in grabbing market opportunities and ensuring that sustainable decisions are provided for future market strategies (44.6%), reliable decisions applied to prevent competition from ruining the purchases / sales of store products (72.3%), consolidating systematically the transfer (bank) transactions (69.3%), and that products are systematically and discounts systematically generated and accurate records properly kept (45.5%); whereas the respondents disagreed (**D**) and strongly disagreed (**SD**) to the following outcomes, which are some of the major roles played by MAPs in any organizations: costs and revenues are properly allocated to products or activities (71.3% D), under and overestimation of costs are prevented and

unexpected costs are eliminated (73.3% D), directly respond to environmental change's negative effects on the store performance (41.6% D, 34.7% SD), the store products' information is integrated throughout all departments (47.5% D), store information can be accessed anytime, anywhere and changes made are automatically updated (55.4% D), respond effectively to economic factors such: inflation, devaluation (50.5% D; 31.7% SD), prevent covid-19 damages caused in retail stores by its regulations (60.4% D), respond to threats from competitors as stores use the same products (65.3% D).

Moreover, in this same regard, the respondents agreed (**A**) and strongly agreed (**SA**) to the following outcomes: appropriate costing decisions are made to keep products competitive (77.2% A), properly plan, estimate and control budgeted costs undertaken by the store projects (49.5% A), correctly account for materials (inventory) supplied, outstanding and required in the store (73.3% A), ensuring the demand supply chain process from: supply, production, inventory, capacity and distribution planning is applied and followed (63.4% A) and Keep maintaining and managing good/higher quality costs of products (76.2% A).

4.3.2. Reliability and Validity

Table 3: Constructs Reliability and Validity (convergent and discriminant) of the Latent variables

Variables	CA	CR	AVE	1	2	3	4
Barriers to MAP	0.848	0.884	0.523	**0.723**			
Cost-Management Practices	0.703	0.806	0.459	-0.397	**0.678**		
Management Accounting Change	0.838	0.864	0.516	0.313	-0.346	**0.718**	
Management Accounting Practices	0.639	0.766	0.399	0.570	-0.561	0.458	**0.632**

Source: Researcher's compilation from Smart PLS 3.0 Software [research findings]

Note: Correlations are the Off-Diagonal figures, and the Diagonal (bolded figures) are the square roots of the AVE.

Referring to Table 3 above, through the use of Partial Least Squares Structural Equation Modelling (Smart PLS 3.0 Software), the constructs reliability and discriminant validity were assessed.

A. Constructs Reliability

To test the measurement of the constructs reliability of the latent variables in this study, the Cronbach's Alpha Test and composite reliability were performed.

According to Rosti-Otajärvi et al. (2017), questionnaires' results are tested as reliable, when the Cronbach's Alpha test is 0.60 - 0.70 and above (as good), 0.80 and above (as better) or 0.90 (as best, excellent or confidence interval level of reliability (i.e. same criteria also apply for testing the composite reliability. However, looking at the latent variables (measures) as illustrated in Table 3, the Cronbach's Alpha and composite reliability test conducted revealed that the latent variables measured in this study are reliable, because the coefficient variable figures (CA and CR values) are greater than the least threshold value of 0.60. Therefore, the construct reliability achieved in this study is good and better (ranging between 0.60, 0.70, 0.80 and above). Nevertheless, the reliability was not excellent (0.90 and above) for all latent constructs measured.

B. Validity: Convergent and Discriminant (and content)

To assess the convergent validity of the latent variables in this study, the average variance extracted (AVE) was used; while to assess the discriminant validity, Fornell and Larcker criterion was used.

According to Hair et al., (2017a), a convergent validity is the extent to which a measure is related to many other measures of the same phenomenon. In this case, one indicator must be positively correlated with other indicators of the same variable to achieve this validity. While Kock (2015), argues that the discriminant validity is achieved by not only associating one measure related to other measures of the same phenomenon, but by also associating one measure not related with many other measures of different phenomenon.

According to Kock and Hadaya (2018), the convergent validity is acceptable when the latent variables values of the average variances extracted (AVE) achieved stand at the least threshold of 0.50 or more. The convergent validity test measured is acceptable for some latent constructs and is not acceptable for other latent constructs in this study. However, in this study, the convergent validity is acceptable towards the barriers to management accounting practices with a threshold of 0.523 and towards the management accounting change with a threshold of 0.516 in KwaZulu-Natal retail stores. But the convergent validity is unacceptable towards the cost-management practices and management accounting practices' usage in KwaZulu-Natal retail stores with a threshold of 0.459 and 0.399 respectively.

Please Note: Regarding to the issue of the 2 Average Variance Extracted below the acceptable threshold of 0.50 as presented above, the researcher referred this situation to the study conducted by Lam (2012) where while measuring the convergent validity in his study using Cronbach's Alpha test, composite reliability and validity the Average Variance Extracted same as used in this research work; it was found that the Cronbach's Alpha test was acceptable at 0.66 (right between the accepted good level ranging between 0.60-0.70 and more) which is same with this present study with Cronbach's Alpha results of all variables ranging at 0.639-0.848. Lam (2012) also found that the composite reliability of all variables was ranging from 0.71-0.74 meeting the acceptable level of greater than 0.60 as per Fornell and Larcker criteria, which is the same with this present study with composite reliability ranging between 0.766-0.884. But Lam (2012) further found that the Average Variance Extracted values of variables was ranging between 0.31-0.40 which were below the acceptable threshold level of 0.50 and more, which are same with present study with 2 AVE values of 0.399 and 0.459.

However, Lam (2012) concluded that according to Fornell and Larcker (1981), the AVE maybe a more conservative estimate of the validity of the measurement model, and on the basis of composite reliability alone; therefore, on the page 46 it was highlighted that **the researcher may conclude that the convergent validity of the construct is adequate, even though more than 50% of the variance is due to error.** Therefore**,** in this study, as all the 4 latent variables figures of composite reliability were far above the acceptable level (0.766, 0.806, 0.864 and 0.884 >0.60),

then this study's internal reliability of the measurement variables in conjunction with the study's convergent validity are fully adequate and acceptable (Fornell and Larcker, 1981; Lam, 2012).

With regards to the discriminant validity in addition, Fornell and Larcker criterion emphasizes on the comparison of the square roots of the AVE values indicated in the diagonal (**bolded** figures in Table 3) with the Off-Diagonal figures which are the inter-constructs correlations (all other figures in Table 3 at 1,2,3 and 4 rows). In order to achieve the discriminant validity using this criterion, the diagonal figures must be greater than the Off-Diagonal figures (Kock, 2015). However, while comparing these latent constructs in this study, the discriminant validity was achieved as all diagonal futures (**0.723, 0.678, 0.718** and **0.632**) are greater than all the off-diagonal figures (-0.397, 0.313, 0.570, -0.346, -0.561 and 0.458).

Furthermore, content validity was measured and achieved in this study after the assessment of questionnaire by the lecturers in the Department of Management Accounting (DUT). It was approved to be academically levelled (Master Degree) and meets the research objectives and literature review. Hence, the ethical clearance letter was provided by DUT to the researcher for administering the questionnaire in all the 21 surveyed retail stores.

4.3.3. Structure model on the individual propensities of the interrelationships between the barriers to MAPs, Management Accounting Change, Cost-management practices and Management Accounting Practices (MAPs)

The structure drawn below (Figure 10) explains and presents the interrelationships existing between the barriers to MAPs, Management Accounting Change, Cost-management practices and management accounting practices as evaluated in KwaZulu-Natal retail stores. The corresponding R values on each individual propensities and the Statistical figures of the direct and indirect effects on the dimensions of the barriers to MAPs, Management Accounting Change, Cost-management practices and management accounting practices are captured in Figure 10.

Please consider the following:

- The study has applied the average estimates from bootstrapping 5000 resamples (p<0.05) to check and ensure the correct significance of the path coefficients (Hair, Sarstedt, Hopkins and Kuppelwieser, 2014)

- **Significance relationship is known when:** T>1.96 or p<0.05 or p<0.01 (Hair *et al.,* 2014)

Figure 10. Structure model on the interrelationships between barriers to MAPs, Management Accounting Change, Cost-management practices and MAPs.
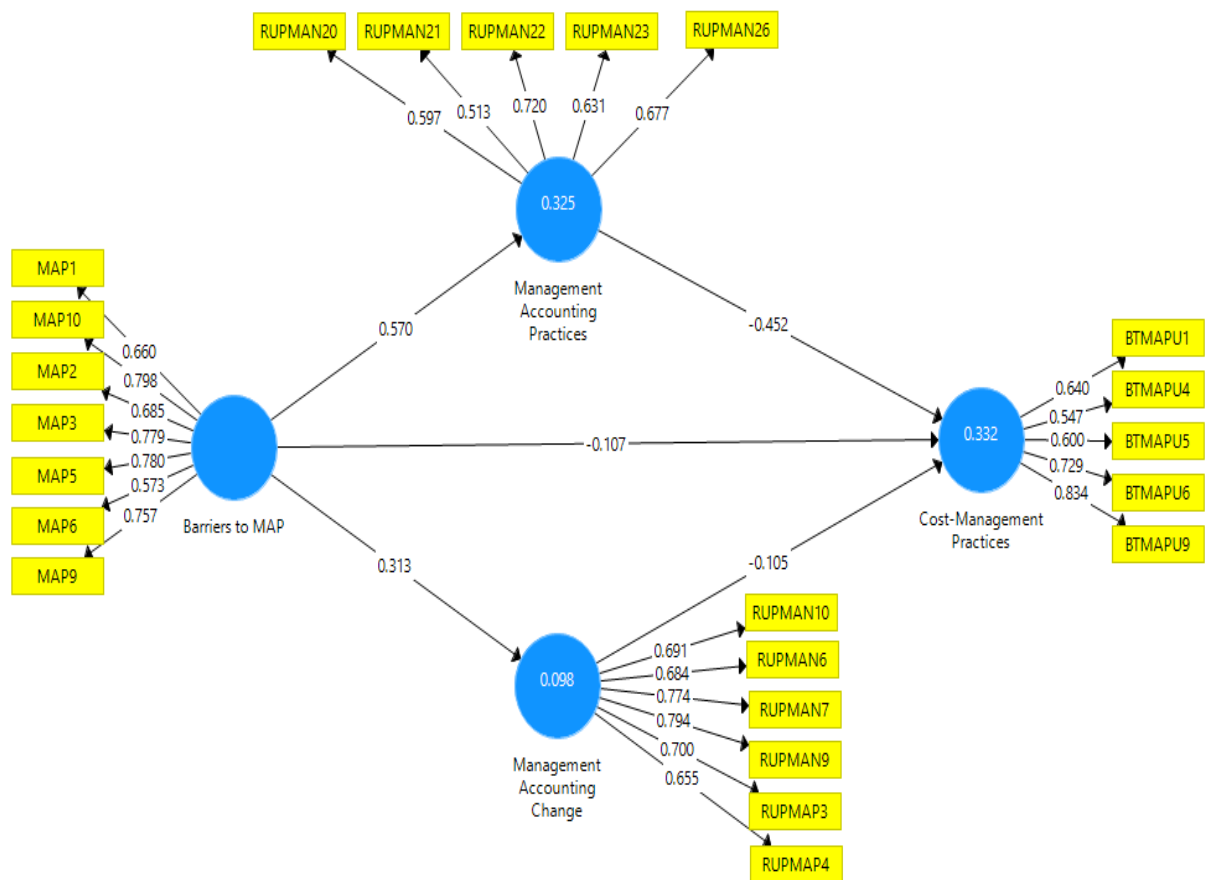
Source: Extracted from Smart PLS 3.0 Software [research findings]

As previously highlighted, the quantitative data results were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26 and Smart PLS 3.0. The path coefficient will be used to answer the 7 study hypothesis relationships among the latent variables derived from 4 r research questions.

Table 4. Path Coefficient (P)

Variables	R Coeffic.	T statistics	P value
Barriers to MAP **->** Cost-Management Practices	-0.107	0.779	0.436
Barriers to MAP **->** Management Accounting Change	0.313	2.846	0.005
Barriers to MAP **->** Management Accounting Practices	0.570	5.688	0.000
Management Accounting Change **->** Cost-Management Practices	-0.105	0.971	0.332
Management Accounting Practices **->** Cost-Management Practices	-0.452	3.399	0.001
Total indirect effect			
Barriers to MAP -> Cost-Management Practices	-0.290	3.837	0.000
Specific indirect effect			
Barriers to MAP -> Management Accounting Practices -> Cost-Management Practices	-0.258	3.611	0.000
Barriers to MAP -> Management Accounting Change -> Cost-Management Practices	-0.033	0.828	0.408

Source: Researcher's compilation from Smart PLS 3.0 Software [research findings]

In this study, as Illustrated in Figure 10 above, Table 3 above and Table 4 above:

Hypothesis 1 was formulated to determine the relationship between the barriers to management accounting practices and Cost-management practices. The path coefficient from the barriers to MAP and Cost-management practices exhibited a no statistically significant relationship between the two variables at (r=-0.107, t<1.96, p>0.05, n=101). Therefore, the hypothesis one is rejected. This result is not consistent with the finding of a similar study conducted by Tsamenyi, Noormansyah and Uddin (2008) which revealed that because of cultural influences dominance in emerging countries, the usage of formal Cost-management practices and controls were less relevant. Thereafter, authors concluded that there was a significant negative influence of culture (this is a barrier factor) towards the usage of Cost-management practices (Tsamenyi *et al.,* 2008).

Hypothesis 2 was formulated to determine the level of relationship between the barriers to management accounting practices and management accounting change. The path coefficient from barriers to MAP and management accounting change revealed a statistically significant relationship between the two variables at (r=0.313, t>1.96 p < 0.01, n=101). This result implies that the barriers associated with the practice of management accounting influences the changes that are adopted in management accounting. Therefore, hypothesis two is accepted in this study. The analyzed data further revealed that their corresponding R value is 0.089, which suggests that barriers to MAPs explains 8.9% variance in management accounting change. This result is consistent with findings of a study conducted by Waweru and Uliana (2016) which revealed that barriers to MAPs such as lack of resources, increasing competition level and the "no need for changes beliefs" among employees significantly and directly hindered the quick adaptation of management accounting change in five South African retail stores surveyed.

Hypothesis 3: The formulation of this hypothesis consisted of determining the level of relationship between the barriers to MAP and management accounting practices. The path coefficient from barriers to management accounting practices to management accounting practices revealed a statistically significant relationship between the two variables at (r=0.570, t>1.96, p<0.01, n=101). However, this result exerts that the barriers related with the practice of management accounting directly influence the application of these practices in the management accounting environment. Therefore, hypothesis three is accepted. This result is consistent and in common accord with the findings from revealed a study conducted by Karadag (2015) who revealed that the lack of knowledge (barrier) of new MAPs had a direct negative influence on the application of management accounting practices in many organizations and was further the reason for many organizations to fail. In addition, this study showcased the R square value of 0.318 from the analyzed data, which evidently indicates that there is 31.8% variance explained from barriers to MAPs in management accounting practices. This result is consistent, evident from the study conducted by Ramezani (2015) which revealed that some of the factors hindered and had a significant influence on a successful usage, adoption of Activity-based costing (i.e., a management accounting practice) in organizations registered in the Tehran Stock Exchange, such

as: lack of training programs, lack of support from top management, lack of resources, low degree of automation, lack of proper design and implementation structure, usage costs, etc.

Hypothesis 4 was formulated to determine the level of relationship between the management accounting change and Cost-management practices. The path coefficient from management accounting change and Cost-management practices revealed a no statistically significant relationship between the two variables at (r=-0.105, t<1.96, p>0.05, n=101). Therefore, this hypothesis is rejected. This result is not consistent with findings from a similar research conducted by Tuan Mat and Smith (2011) who revealed that change brought in the practice of Management accounting directly influenced the use of many traditional cost-management practices such as: standard costing, Cost-Volume Profit analysis, absorption costing, etc. which had to be dropped out in many Malaysian manufacturing industries during the 1996 financial crisis

Hypothesis 5 was formulated to indicate the relationship level between the management accounting practices and the cost-management practices. The path coefficient from management accounting practices and Cost-management practices revealed a statistically significant relationship between the two variables at (r=-0.452, t>1.96 p<0.01). Therefore, this hypothesis is accepted. This result is consistent with the study's suggestion and recommendation made by White, Anitsal and Anitsal (2015), who revealed that the immediate shift to Activity-based Costing (this is a management accounting practice) had a positive influence in organizations to improve decision-making, enhance improvement in the quality of cost data and lead to improved Cost-management practices. Nevertheless, this result contrasts the findings from the study surveyed by Guay (2014) who in his regard, revealed that there was no statistically significant relationship between the strategic management accounting practices with Cost management practices, strategic cost management, costing systems and specific strategic management accounting practices across different kind of organizations.

However, with the calculated R square value of 0.312, it can be inferred that management accounting practices is correlated up to 31.2% variance in Cost-management practices. This result is statistically significant and consistent with the correlation study between the contingency

factors affecting the Activity-based costing usage conducted by Spencer (2016), who revealed that the efficacy of the use of ABC to improve the quality of cost data was significantly related to the degree of hospital chief financial officer's belief about the efficacy of the use of ABC to improve Cost-management and control practices (i.e. statistic data analyzed stood at r value=0.548 and p<0.01).

As illustrated in Table 3 above:

The results of the **total indirect effect** of barriers to MAPs and Cost-management practices (r=-0.290, p<0.01) indicates that the barriers to MAPs exert the significant total indirect effect on Cost-management practices.

Hypothesis 6 was formulated to examine the mediating role of management accounting practices on the relationship between barriers to MAP and Cost-management practices. The result shows that management accounting practices fully mediate the relationship between barriers to MAP and cost-management practices. This is because the direct path from barriers to MAP and cost-management practices is not significant. However, barriers to MAP exerts an indirect influence on cost-management practices via management accounting practices (r = 0.258, t>1.96, p>0.05). Based on the outcome of this statistical analysis, hypothesis 6 is accepted. This result is consistent with the findings from a study conducted by Chan Eric, Walker Derek and Mills Anthony (2009), who revealed that barrier factors and hindering drivers prostrating organizational data issues such as: lack of financial resources, poor internal expertise among employees, training issues, resistance to change and lack of consensus among organizations' top or senior management have indirectly influenced the existing cost management practices used by 18 contractors working in the construction industry in Hong Kong; but after the effective adoption of the Enterprise Resource Planning system (this is a new management accounting practice), all these barriers were rendered ineffective and cost management practices issues were significantly improved (Chan Eric *et al.,* 2009).

Hypothesis 7 was coined to investigate the mediating influence of management accounting change on the relationship between barriers to MAP and cost-management practices. The test of mediation conducted shows that management accounting change does not mediate the

relationship between barriers to MAP and cost-management practices (r=-0.033, t<1.96, p>0.05).However, this result is not consistent with evidence from the results analyzed by Odia (2019) on the changing role of management accounting and management accountants in Nigeria, where it was revealed that the management accounting change has occurred with the introduction of new Cost-management techniques such as: balance scorecard, performance evaluation/measurement and activity-based costing; but the failure for organizations to adjust to changes, management accountants' inability and staffs' insufficient skills (i.e. these barriers' factors) had negatively influenced the adaptation of new Cost-management practices brought in with management accounting change.

4.3.4. Decisions on Tested Hypothesis

Table 5. Decisions on Tested Hypothesis

Hypothesis	Variables	R coefficient	T statistics	P value	Adjusted R^2	Decisions
H1	Barriers to MAP **->** Cost-Management Practices	-0.107	0.779	0.436	0.312	Rejected
H2	Barriers to MAP **->** Management Accounting Change	0.313	2.846	0.005	0.089	Accepted
H3	Barriers to MAP **->** Management Accounting Practices	0.570	5.688	0.000	0.318	Accepted
H4	Management Accounting Change **->** Cost-Management Practices	-0.105	0.971	0.332	0.312	Rejected
H5	Management Accounting Practices **->** Cost-Management Practices	-0.452	3.399	0.001	0.312	Accepted

| H6 | Barriers to MAP -> Management Accounting Practices -> Cost-Management Practices | -0.258 | 3.611 | 0.000 | 0.312 | Accepted |
| H7 | Barriers to MAP -> Management Accounting Change -> Cost-Management Practices | -0.033 | 0.828 | 0.408 | 0.312 | Rejected |

Source: Researcher's compilation from Smart PLS 3.0 Software [research findings]

The decisions taken in Table 5 were based on the seven formulated hypothesis tested using the partial least squares structural equation modelling, which enabled the researcher to answer the research questions made for this study. However, as illustrated in Table 3, this study rejected the hypothesis 1 because the barriers to management practices has a no statistically significant relationship with cost management practices ($p>0.05$, $t<1.96$); while hypothesis 2 was accepted because the barriers to management practices has a statistically significant relationship with management accounting change ($p<0.01$, $t>1.96$) and hypothesis 3 was accepted as well as the barriers to management accounting practices has a statistically significant relationship with management accounting practices ($p<0.01$, $t>1.96$).

In addition, the study rejected the hypothesis 4 because the management accounting change has a no statistically significant relationship with cost management practices ($p>0.05$); while hypothesis 5 was accepted because management accounting practices has a statistically significant relationship with cost management practices ($p<0.01$, $t<1.96$). However, the barriers to MAPs showcases a significant total indirect effect on cost management practices because it was found with the path coefficient $p<0.01$ and t statistics $t>1.96$. Moreover, with regard to hypothesis 6, this study found and decided that the specific indirect effect of the management accounting practices fully mediated the relationship between barriers to management accounting practices and cost-management practices ($p<0.01$ and $t>1.96$, hypothesis accepted); while the hypothesis 7 was rejected as the study found that the management accounting change does not mediate the relationship between barriers to MAP and cost-management practices ($p<0.05$, $t<1.96$).

4.4. Section 3: Interpretation and Discussion of Qualitative Data Findings

The answers to the interview are discussed in this section and depicted on the aggregate views excerpted from the survey participants' responses. The 3 interview questions developed from the formulated research question (Q V) are: **(1)** Does your store correctly allocate costs and revenues to products or activities? If "Yes", which practice(s) do you use? **(2)** To what extent do management accounting practices improve your store's financial performance? And **(3)** Does your store benefits from sustainable information flow generated by management accounting practices? If "Yes" or "No", specify how?

However, the major themes that emerged from the analyzed the qualitative data findings are presented in Figure 11

Figure 11. Qualitative Data Diagram
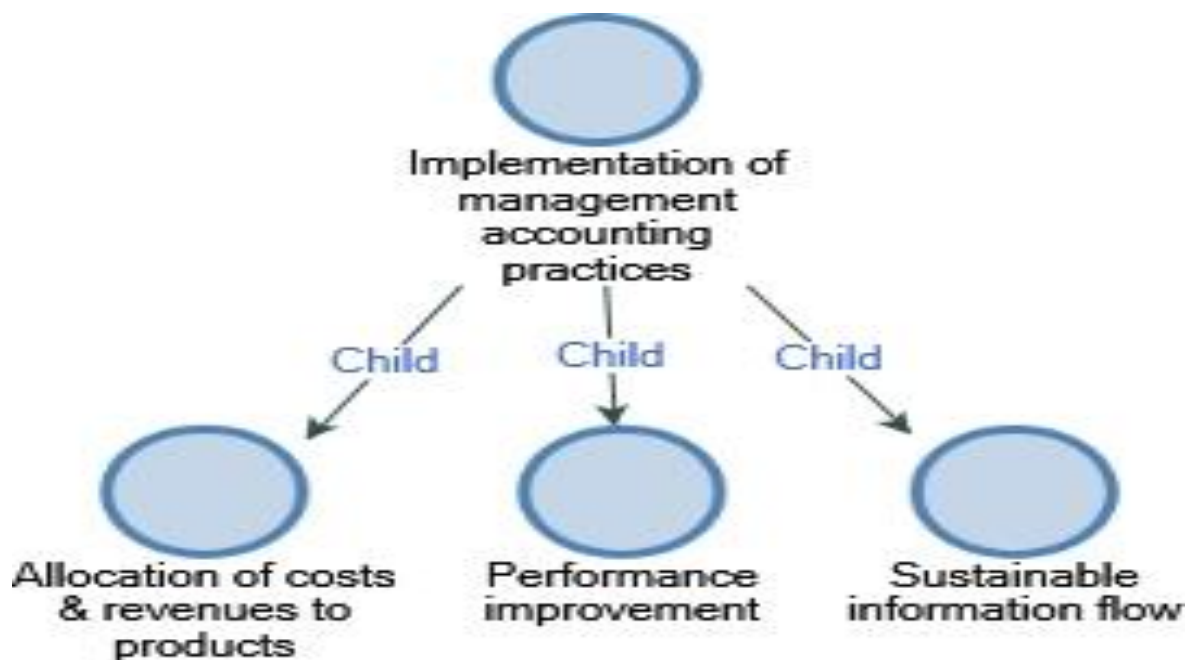
Source: Extracted from Nvivo Software [research findings]

In this section, the study presents findings collected from the qualitative data through the process of interviews conducted with account managers only in the surveyed retail stores. The researcher had opted for this qualitative method as well in this study, not only to be provided with additional information non-numerical and inaccessible from the quantitative method, but with the aim to also develop a stronger and more robust research proposal meeting the aim and objectives

assigned for this study. It is noteworthy that all regulations obliging the social distancing between people due to the covid-19 pandemic as requested by the South African National Health Department were observed during the interview process. Before conducting the interviews in all surveyed retail stores, the research requested for a permission to audio record the interview process. Afterwards, the researcher transcribed these recorded audios into Microsoft Word to prepare for the analysis. These qualitative data were analysed using Nvivo Software. According to Woolf and Silver (2017), NVIVO is a data analysis technique in a form of software program specifically made for qualitative data analysis, used for analysing unstructured data, text, image data, video including interviews, focus groups, surveys, Journal articles, observations and theatre

However, the responses from interviewees (participants) are presented and organised into theme which is denoted by a node (i.e. Figure 11. usage of management accounting practices), and **sub-theme** (i.e. Figure 11. allocation of costs and revenues to products, performance improvement and sustainable information flow). Using Nvivo, The node is the holder of all information contained in a specific theme; however once the node is opened, all hidden information in that specific theme is revealed and made available (Zamawe, 2015).

To ease the navigation, each of the above-mentioned sub-themes as illustrated in Figure 11 above are presented, discussed and interpreted in the following section.

4.4.1 Allocation of Costs and Revenues to Products

The allocation of costs (revenues) to products involves identifying, accumulating and assigning costs to cost pools, objects or products. Managing retail stores never been easier, but Waweru and Uliana (2016) found that the better costs are properly managed and assigned, the greater retail stores improve performance and profitability; and this enable retail stores to trace profit or loss making products. This part of the study has emphasized on exploring the way costs are being managed and allocated in South African retail stores, because few studies had evidently reported severe damages traditional costing systems applications and the competition

implication have caused with regard to cost misallocation and mismanagement in many organizations whether small, medium or large (Rundora, Ziemerink and Oberholzer, 2013).

The question formulated by the researcher to the interviewee was to indicate whether the retail store correctly allocates costs or revenues to products or activities and which practice(s) is/are being used? However, as illustrated below in Figure 12, using the Nvivo software, the following coded sub-themes enumerated from this theme "allocation of costs & revenues to products" will be revealed and discussed below, which are: budget strategy, income statement, inventory costing system, penetration costing strategy and product costing strategy.

Figure 12: Practices used for costs and revenues allocation
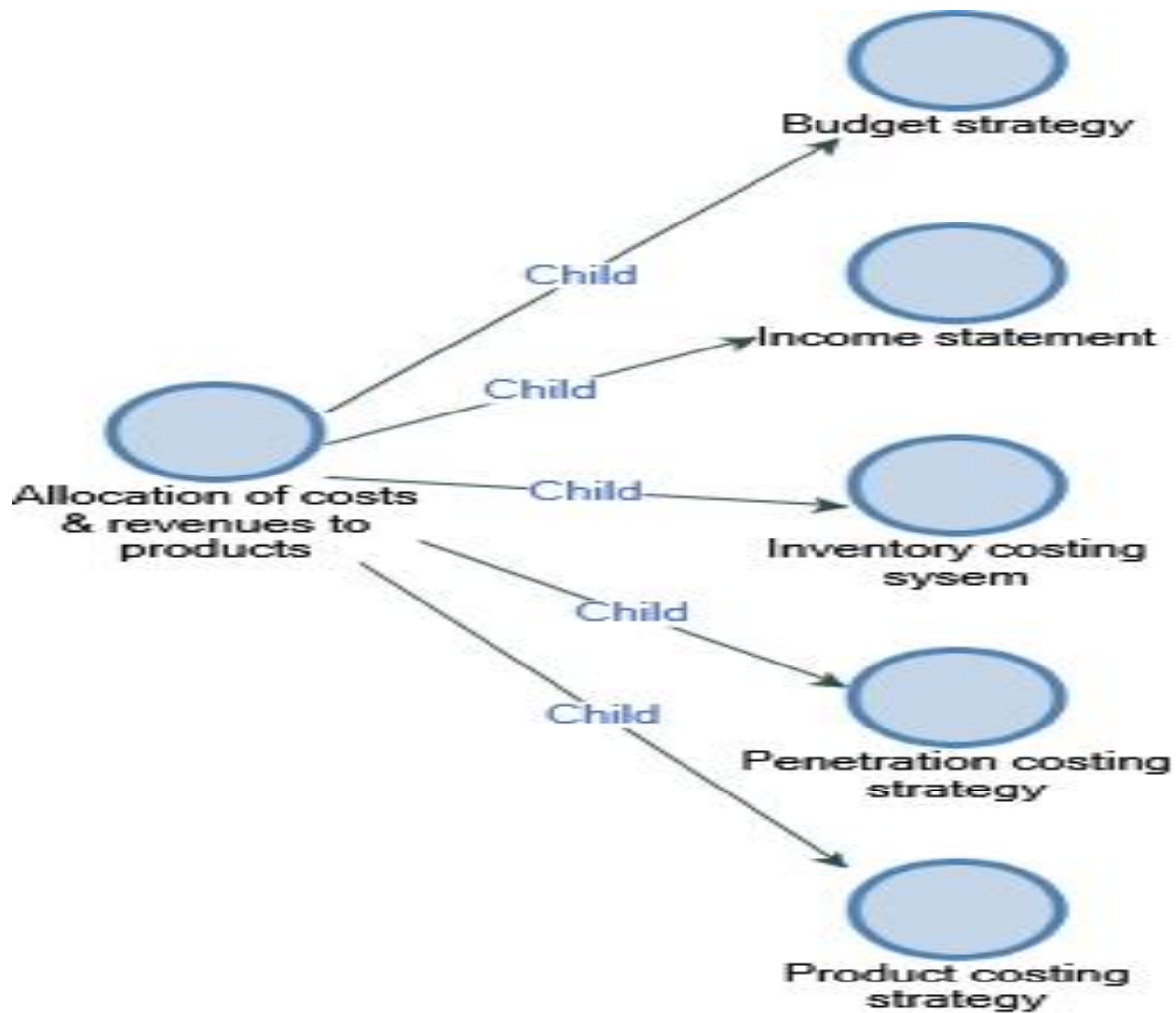
Source: Extracted from Nvivo Software [research findings]

A. Budget strategy

Historically, the budget strategy has played major roles in assisting many organizations to overcome the rising in competition, market depression, currency devaluations and inflations which were causing a huge decline in products' profitability (Asumani, 2019). Hence, this practice was believed to be the best practice for cost management control (Asumani, 2019).

The excerpt from the survey is stated below:

"The interviewee was asked by the researcher whether the store correctly allocate costs and revenues to products or activities and which practice is used to do so; and the Interviewee responded by saying: Yeah, now eh! We budget for everything. So, if we are allocating costs for

the clothes we have bought, the budgeted figures are already forecasted for all expenses that will be spent on items to buy. So, it's budget strategy."

However, with the current complexities experienced by many organizations globally due to competition (Szász *et al.,* 2019) and the diversities of costs (material, labour and overhead) requiring adequate allocation and management in retail stores (Naidoo and Gasparatos, 2018), KwaZulu-Natal retail stores relying on the use and adoption of budget strategy in allocating costs/revenues to products/activities is not dependably and reliably consistent based on its inefficiency (inability) to operate exactly as predicted in case of bad changing conditions (Ellul and Hodges, 2019).

B. Income Statement

According to Seedat, Greenham and Vanker (2016), the income statement known as the statement of profit and Loss and other comprehensive income, is a financial statement showing the revenues earned and costs (expenses) incurred during a certain financial period. This statement focusses on measuring the financial performance of an organization (Seedat *et al.,* 2016).

Now, looking at the excerpt from the survey as stated below:

"The interviewer asked whether the store correctly allocate costs and revenues to products or activities and which practice is used to do so; and the Interviewee responded by saying: Yes, our store allocates costs using the income statements under cost of sales spent on purchases made. Umh! Let's say if we have bought 1000 trousers for boys and 500 ladies' jeans, transport costs including all other costs to be paid when taking__ee_the products from the suppliers to us are all added to find a total and subtracted that total under cost of sales."

According to Apostolide (2016), the challenge towards the allocation of costs to activities is highly centred on the overhead costs allocation, mostly in large organizations such as retail stores offering many different types of products. In this case, KwaZulu-Natal retail stores relying on the use and adoption of income statement in allocating costs/revenues to products/activities is not consistent as the income statement can only show the behaviour and standing of these costs in the financial statement (Miller, 2017). But many publications found that the contemporary

management accounting practice: "Activity-based Costing (ABC)" has been surveyed, found and revealed to be the practice accommodating perfectly with the management and allocation of material, labour and overhead costs to activities in today's business environments (Apostolide, 2016; Asana *et al.*, 2020; Miller, 2017).

C. Inventory Costing System

According to the Institute of Company Secretaries of India (2015), the inventory costing system is a system that helps an organization assigning value to its end products or inventories (hence, costs of goods sold). And three main inventory costing systems commonly used, such as: First In First Out (FIFO), Last In Last Out (LIFO) and Weighted Average Costing (WAC) [Institute of Company Secretaries of India, 2015].

However, excerpt from the survey participant below depicts the aggregate views of all the participants in this study:

"The Interviewer asked by the interviewer whether the store correctly allocate costs and revenues to products or activities and which practice is used to do so. And the Interviewee responded saying: Yes, all our operations turn around the inventory costing system. All costs and revenues are subjected from this system."

However, according to the Institute of Company Secretaries of India (2015), one of the inventory costing system, "LIFO" been bound internationally and reported illegal by the International Financial Reporting Standards (IFRS) from being used for reporting by organizations. However, LIFO is only permitted in United States by the Generally Accepted Accounting Principles (GAAP); while even though the adoption of FIFO method is compliant with many inventories reporting laws and guidelines, but it's especially more useful to organizations with highly perishable products (Institute of Company Secretaries of India, 2015). **Now, what of retail stores such as clothing, Home Furnishings, Food and Beverages ?** And finally, though the WAC is useful to assist on recording inventories and their individual costs, but it requires many and more calculations efforts in case of a very large receipts of products from suppliers (Institute of Company Secretaries of India, 2015) like in case of large retail stores supplies. Therefore, focussing on the above-mentioned disadvantages held by these practices, this study found that KwaZulu-Natal

retail stores relying on the use and adoption of inventory costing systems in allocating costs/revenues to products/activities is not consistent. However, Biswas *et al.,* (2017) suggested organizations to shift in adopting the integrated and digital inventory management systems that mostly assist and improve inventory transactions' efficiency and enable information flow capabilities.

D. Penetration costing Strategy

Looking at the excerpt from the survey as stated below:

"The Interviewer asked whether the store correctly allocate costs and revenues to products or activities and which practice is in use to do so? And the Interviewee replied by saying: Yes. Allocating costs to our products or charging for our stuffs, we use the penetration costing strategy. Just, once our products enter the market, we pay all necessary costs to make them available in our store and we then play with the market price."

However according to Sammut-Bonnici and Channon (2015), the penetration costing strategy is a costing practice where right at the introduction of new products (brand), the organization sets the price lower to attract more customers while expecting a fast reach of huge sales in a very short time. Nevertheless, many disadvantages have been evidently reported from the adoption of this technique, such as: small profitability gained after huge amount of sales, destroying the industry prices and particularly the organization's image and also several missing of opportunities over a time (Sammut-Bonnici and Channon, 2015). Hence, with such disadvantages reported, this study found not consistent the adoption of penetration costing strategy for allocating costs to activities in KwaZulu-Natal retail stores.

E. Product Costing Strategy

Rudnäs (2019) revealed that organizations apply this system when estimating the cost to be paid on the product. This analysis benefits the organization for controlling costs, valuing inventory and analysing profitability (Rudnäs, 2019).

Looking at the excerpt from the survey as stated below:

"The Interviewer was asked whether the store correctly allocate costs and revenues to products or activities and which practice is being used to do so? And the Interviewee replied saying: Yes, We use the product costing to allocate costs to products. As we buy products, costs to paid on these products are already allocated before even the transaction. We know how much we will pay for shipping a particular product. And these costs are recorded in the income statement to keep account."

However, Rudnäs (2019) revealed that when this contemporary management accounting practice is used in organizations, there will be no cost effectiveness for long-term benefit only, but there will be also an accuracy on decision-makings related to cost control which will result in an efficient Earnings before interest and taxes margin in return. Therefore, relying on the fact that this practice ensures an adequate product cost control, the study found consistent the usage of product costing strategy for allocating costs and revenues to products and activities in KwaZulu-Natal retail stores.

4.4.2 Performance Management

In this regard, the question formulated from the study was emphasizing on finding the utilities and roles played by management accounting practices used in KZN retail stores surveyed for improving financial performance management. As illustrated below in Figure 13 through the use of Nvivo software, the following coded sub-themes enumerated will be revealed and discussed below, which are: improvement of daily operations, improvement of financial performance, sales improvement and the System Applications and Products (SAP) system.

Figure 13: Performance Management Improvement
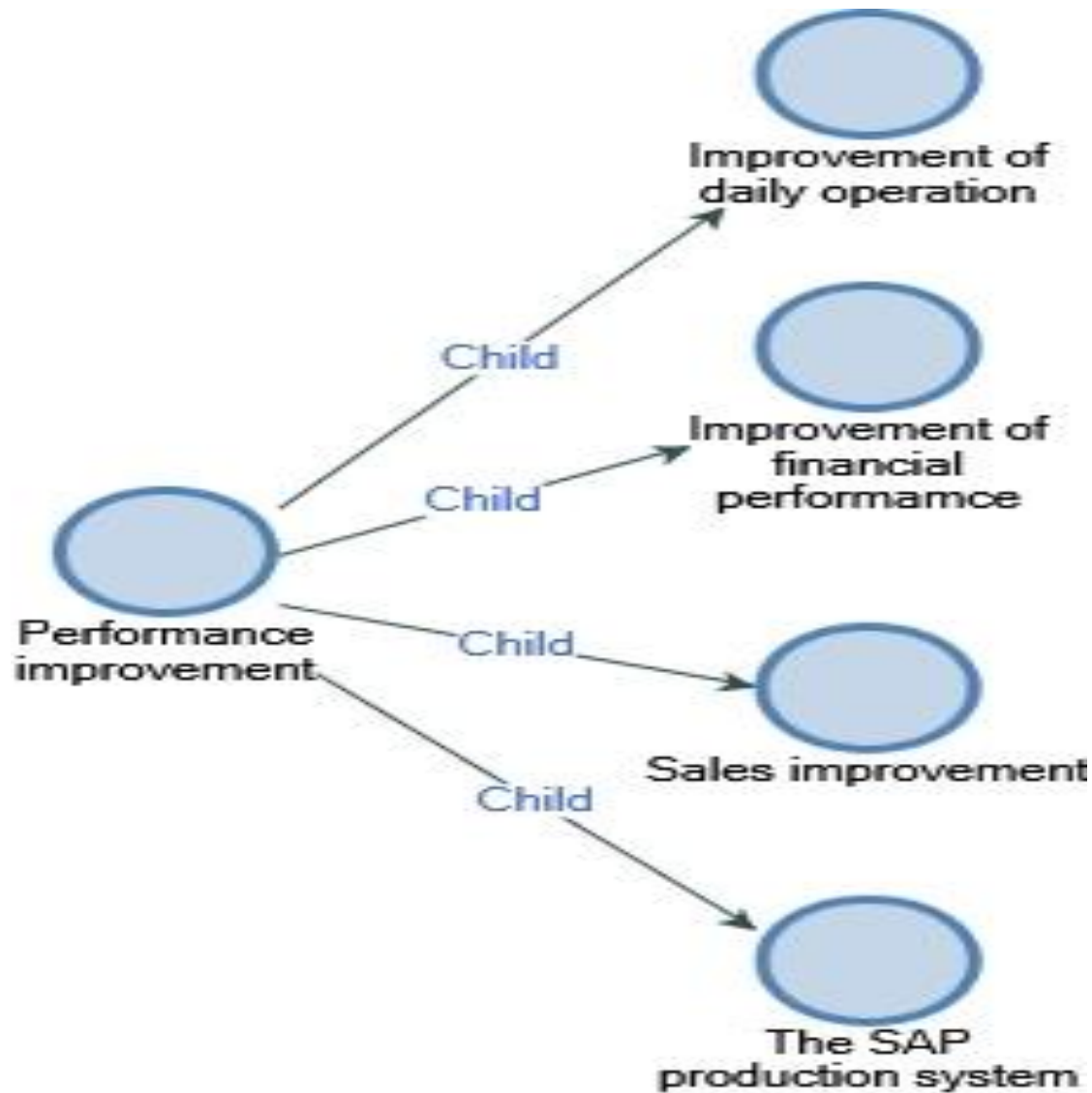
Source: Extracted from Nvivo Software [research findings]

A. **Improvement of daily operations, Improvement of financial performance and Sales improvement**

According to Waweru and Uliana (2016), competition rivalry and economic instability enumerated from government reformation earlier in 1994, have been amongst the major factors that negatively influenced the overall performance management in South African retail stores and many other industries

Looking at the excerpt from the survey interview as stated below:

"The Interviewer asked the interviewees: To what extent management accounting practices improve your store financial performance?

*And **one interviewee** responded that: The cost leadership that we use improves our financial performance by assisting the store in maintaining cost price and selling price of clothes; and **another interviewee** replied saying that: Eh! This penetration costing strategy facilitate our store to maintain the selling price competitive and discounted for our customers. That help us improving profits and also financial performance; **another interviewee** revealed saying:: Eh! To improve financial performance in our store, we simply use the income statement where all transaction records of income and expenses are properly recorded and updated; **another interviewee** revealed saying that: To improve our operations, we follow the inventory costing system guidelines. All prices, costs and everything are provided by the Head Office and all branches follow that guidance. Now, as the branches operate following decisions from the head office, our financial performance always rises. However, covid-19 has been a challenge so far, it has even diminish our performance measurement level but we are copying in to keep our customers satisfied and workers employed. And **one other interviewee** indicated that: Our store financial performance improvement depends on the sales we have made throughout a certain period of time. The budget system we use does not really promise a better financial performance or improve our sales performance, mostly because we update from there all the time; and we can't fully rely all our sales and purchases on it."*

However, some studies conducted in different industries revealed that companies adopting traditional MA practices for managing their operations have experienced many disadvantages and weaknesses, such as: low and weak improvement in retail stores' performance (Stead *et al*., 2018), weak internal and external integration and interaction of information between an organization and its users (Rizgar *et al*., 2015) and inadequate response to competitive conditions (Helm *et al*., 2018; Ellul and Hodges, 2019). But the adaptation of new management accounting practices and changes has lifted higher many organizations' performance management worldwide and has provided several competitive advantages (Szász *et al*., 2019; Naidoo and Gasparatos, 2018). And that was evident from the study conducted by Waweru and Uliana (2016) on MA change in 5 major South African retail stores, their results revealed that retail stores that

adapted to MA change by shifting to contemporary management accounting practices such as: Activity based costing allocation system and balance scorecard to performance measures have highly improved their financial performance and operations' management.

Furthermore, this was observed from the survey conducted by Jeon (2016) in Korean and Thai organizations while examining the usage of MAPs in these organizations and the barriers towards the adoption caused by the Asian financial crisis that occurred in 1997; their survey revealed that great technological change occurred in the use of MAPs before, during and after the crisis especially in Thai companies; where it was found that traditional MA systems were dropped (only few adapted) after the crisis as per respondents' feedback, but the shift to advanced management accounting practices after that crisis increased these firms' performance and became a competitive advantage to these companies during and after the crisis (Jeon, 2016).

B. The System Applications and Products (SAP) production system

Only 3 out of 19 account managers revealed the usefulness (roles and utilities) played by SAP in their retail stores for improving financial performance. Schulz (2017) indicated that the SAP is a centralized enterprise resource planning software that enables businesses' departments to share and have access to common data for a sustainable working environment to all staffs.

Looking at the excerpt from the survey interview as stated below:

"The Interviewer asked the interviewees: To what extent management accounting practices improve your store financial performance? **And one interviewee** *responded that: For this question, just understand that, eh! Adopting SAP in this store is improving our daily operations, it's even improving our workers' skills and financial performance as your question said. In one word I may say, it's a system that integrates all our transactions;* **another interviewee** *revealed that: SAP improves our store financial performance as it assists on keeping record of purchases and sales of clothes including all other financial operations. Towards competition from other stores, SAP assists us on maintaining competitors' pressures which improve the profitability to our store;* **another interviewee** *responded saying that: Towards our financial performance, SAP has been an integral system coordinating all our operations. And with SAP, we easily make*

decision on how to keep our businesses running by responding to all our customers' needs and also meet our financial goals."

However, Schulz (2017) revealed the following advantages to be gained from using this system, which are: an easy and efficient collection and retrieval of data is performed with immediate integration to different business sectors, a massive increase in organizations and employees' productivity, hence an enhanced improvement in financial performance, data confidentiality can be assured as no duplication can be made, and finally ensures flexibility in organizations' growth. Nevertheless, Schulz (2017) argued in contrast that organizations using SAP usually encounter the following problems below as well, such as: SAP package is believed to be very expensive to buy, more emphasis attributed on high talented and experienced people that can be able to use it and very complex for new trainees to use.

4.4.3 Sustainable Information Flow

To begin with, the aim of this study was to evaluate the extent at which the usage of management accounting practices (MAPs) facilitate the **flow of information** for internal reporting within KwaZulu-Natal retail stores.

However, in order to manage a retail store efficiently and effectively, Ishfaq *et al.*, (2016) suggest that retail stores invest more in technology and business process development. Investing in technology is ensuring sustainable quality information flow through technology innovation and solutions in the organization.

The question formulated by the researcher to the interviewee was to indicate whether the store benefits from sustainable information flow generated by management accounting practices? If "Yes" or "No", specify how? However, as illustrated below in Figure 14, using the Nvivo software, the following coded sub-themes enumerated from this theme "sustainable information flow" will be revealed and discussed below, which are: communication integration, market analysis, profitability, record keeping and evaluation of stock.

Figure 14. Sustainable Information Flow Benefits
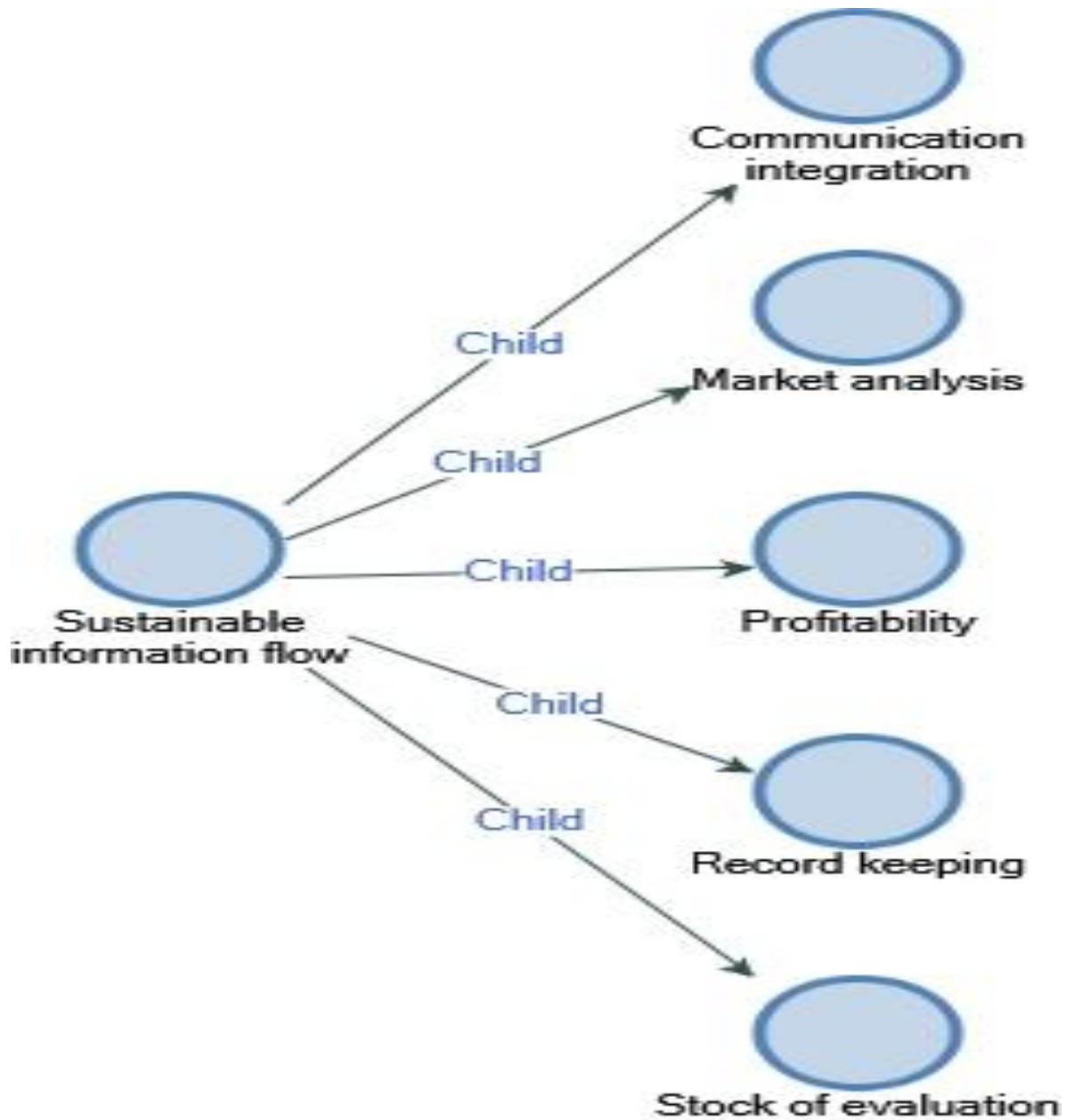
A. Communication Integration

Authors argued that Communication Integration is one of the major roles played by advanced accounting practices in any type of organization (Schulz, 2017; Jeon, 2016).

Looking at the excerpt from the survey interview as stated below:

"*The interviewer asked the interviewees whether the store benefits from sustainable information flow generated by management accounting practices? If "Yes" or "No", specify how? And **one Interviewee** responded saying that: Yes, our system information facilitates the integration of communication between us and the customers, and help the managers to make decisions and conduct budget, and keeps everyone working and using the system aware about our improvements and deficiencies. And **another interviewee**: Eh! Information from management accounting practices integrate communication in the whole store.***"**

However mostly in retail stores and many other large organizations, Tuan Mat *et al.,* (2016) are of the view that understanding the consumers' behaviour requires an uninterrupted communication and feedback between retail stores with its consumers, by the means of necessary advanced MA techniques facilitating the information flow to meet the current inter-dependence observed between companies in the globe (Hussein, 2018).

B. Market Analysis, Record Keeping and Evaluation of Stock

Looking at the excerpt from the survey interview as stated below:

"*The interviewer asked the interviewees whether the store benefits from sustainable information flow generated by management accounting practices? If "Yes" or "No", specify how? And **one interviewee** responded saying that: Yes, the information generated in these systems are more important to us. Sometimes, we get to understand what clothes to put for sales in the market or which ones to keep in the store after evaluating the information figures from maybe the SAP Production system or product costing system; and **one other interviewee** revealed that: Yes Ok. Its (i.e., inventory costing system) information helps us keep knowledge of inventory available for customers. And also, we use the SAP Production system to keep records of our operations; and **one more interviewee** revealed that: Yeah, information from this system (i.e., inventory system through valuation of stocks) improves our adaptation in the clothing industry as we are facing many suppliers and customers we're dealing with. Sooo… yeah. Its information helps us keeping records in case of any loss of clothes or return of clothes.***"**

However, Stead *et al*., (2018) revealed that the retail industry is among the most competitive and profitable industries for business investors in the world. But in order to ensure profitability,

Biswas *et al.,* (2017) are of the view that a retail store must first analyse its prospectus market, understand the environment of business, keep up with preferences of customers and ensure that the stores' information is dependable and sustainable. In this regard, Biswas *et al.,* (2017) argued that when goods are purchased or produced in a retail store, a proper check, management and records of these goods must be done until the end sales process. However, while analysing the inventory control techniques performed in Bangladesh retail store, the authors revealed that two major problems were encountered in Bangladesh retail stores relating to their inventory stocks, which are: stock-out and overstock (Biswas *et al.,* 2017). But findings collected from a store called: Pran, RFL Group, revealed that proper inventory management systems (i.e., ABC, EOQ, Cost analysis) used in this store strongly minimised a higher probability of inventory stock-out and overstock situations; and it facilitated or assisted managers to keep proper records of inventory valuation and ensured product availability with the lowest inventory cost when customers' orders were placed (Biswas *et al.,* 2017).

C. Profitability

According to Stead *et al.,* (2018), every retail store must ensure that customers are fully satisfied in order to realise a reasonable return on profits. Having a solid interaction with customers and ensuring that customers' complaints, needs, feelings and profitability are prioritized are some of the key goals' predictors of a foreseeable sustainability for any organisation (Kubjatkova and Krizanova, 2020).

However, excerpt from the survey participant below depicts the aggregate views of many other participants in this study:

*"The interviewer asked the interviewees whether the store benefits from sustainable information flow generated by management accounting practices? If "Yes" or "No", specify how? **And one interviewee** revealed that: Yes, SAP information is important as it reveals to us how profitable our products are; and **another interviewee** revealed that: Yes, our transactions kept in the income statement provides enough information to the store regarding of our financial performance, products' profitability, areas where too much expenses were spent".*

However, Karaosman *et al.,* (2017) investigated the competitors' sustainability appraisal in the luxury fashion retail chain; in their study, it was revealed that a store following up on recent information of competitors published financial statements (i.e., statement of Profit and Loss and Other comprehensive income, Statement of Financial Position, Statement of Equity, Cash flow statement, etc.) are deemed to more dedications for improving sustainable performance and motivated to improve their return on profits at their financial year end.

Brief conclusions of qualitative data analysis findings

Three questions were formulated to find the above results concluded in this section:

The first question from the interviews conducted was: to indicate whether store correctly allocate costs and revenues to products or activities and mention which practice(s) do you use? And the findings collected revealed that to allocate costs/revenues to products/activities, KwaZulu-Natal retail stores use the: budget strategy, income statement, inventory costing system, penetration costing strategy and product costing strategy.

The second question to the interviewees was: To what extent management accounting practices improve your store financial performance? And the results revealed that: management accounting practices improve daily operations, improve financial performance through the use of budgets or income statement and also guarantee the sales improvement in KwaZulu-Natal retail stores. However, a strong improvement of financial performance has been surveyed by many authors and revealed that with the adaptation to new management accounting practices and changes, many organisations have lifted higher their performance management worldwide and has been provided several competitive advantages (Szász *et al*., 2019; Naidoo and Gasparatos, 2018). However, only few respondents (3 our of 19 interviewees) mentioned that SAP, one of an advanced practice assists their stores in improving financial performance in KZN retail store.

And the final (third) question to interviewees was: Does your store benefits from sustainable information flow generated by management accounting practices? If "Yes" or "No", specify how?

And the results revealed that sustainable information flow is ensured from management accounting practices in retail stores when : proper market analysis is conducted, record keeping are maintained, inventory stock evaluation are done continuously and communication integration is ensured. However, Hussein (2018) suggested that that advanced MA techniques should be placed in place to facilitate the information flow to meet the current inter-dependence observed between companies in the globe.

Please note: This section achieved **other validity (trustworthiness) constructs** such as: **transferability, conformability, dependability and credibility** for validating qualitative data (interviews). To further ensure the validity of this present research work, face-to-face interview sections were conducted with 19 account managers to achieve the "**face validity**" in this study.

4.5.   Concurrent Triangulation Model: Comparison stage of the Coverage point of Qualitative Data Findings improving limitations on Quantitative Data Findings issues

The quantitative data findings revealed on Hypothesis 5 a statistically significant relationship between cost management practices (traditional MAPs) and management accounting practices (advanced or contemporary) at (r=-0.452, t>1.96 p<0.01); but the statistical results from the Average Variance Extracted of Cost-management practices and management accounting practices were below the acceptance level of 0.50, standing at 0.31-0.40. While qualitative data findings in its angle revealed in terms of MAPs used to **allocate cost or revenues to products or activities** four practices were not found consistent, such as: Budget strategy, income statement, inventory costing system and penetration costing strategy. Therefore, the researcher suggested the usage of the Activity-Based Costing in KwaZulu-Natal retail stores to assist in this regard which is consistent with the study conducted by Rudnäs (2019) who revealed that when the contemporary management accounting practice is used in organizations, there will be no cost effectiveness for long-term benefit only, but there will be also an accuracy on decision-makings related to cost control which will result in an efficient Earnings before interest and taxes margin in return. Therefore, relying on the fact that this practice ensures an adequate product cost

control, the study found consistent the usage of product costing strategy for allocating costs and revenues to products and activities in KwaZulu-Natal retail stores.

Furthermore, the quantitative results in terms of the way MAPs in use **improve the stores' financial performance** in KwaZulu-Natal retail stores as found in Table 2. Where for 42% and 35% disagreed and strongly disagreed respectively that their MAPs respond to environmental change's negative effects on the store performance. And the results revealed that KZN used retail management accounting practices improve daily operations, improve financial performance through the use of budgets or income statement and also guarantee the sales improvement in KwaZulu-Natal retail stores. However, a strong improvement of financial performance has been surveyed by many authors and revealed that with the adaptation to new management accounting practices and changes, many organisations have lifted higher their performance management worldwide and has been provided several competitive advantages (Szász et al., 2019; Naidoo and Gasparatos, 2018). However, this paper suggested the shift to the use Systems Application and Products to assist their stores in improving financial performance in KZN retail store.

Moreover, the quantitative results in terms of **Management accounting information flow** in KwaZulu-Natal retail stores is not as good as satisfying, like for instance looking at the option in Table 2. where for about 47% disagreed if the store informs customers on new products' arrival; and 56% and 10% respectively disagreed and strongly disagreed that the store information can be accessed anytime, anywhere and changes made are automatically updated and 48% and 10% disagreed and strongly disagreed respectively, that the store products' information is integrated throughout all departments in KwaZulu-Natal retail stores. However, The qualitative results improved these quantitative data in terms of when the researcher asked the respondents to mention whether and how their MAPs get to improve sustainable information flow in place within their organisation, and it was found that sustainable information flow is ensured from management accounting practices in retail stores when : proper market analysis is conducted, record keeping are maintained, inventory stock evaluation are done continuously and communication integration is ensured. However, Hussein (2018) suggested that advanced MA techniques (which according to the quantitative findings advanced MAPs are not mostly used in

KZN stores) should be placed in place to facilitate the information flow to meet the current inter-dependence observed between companies in the globe.

The above are the qualitative findings response to some of issues encountered during the quantitative method findings looking at the comparison point of view.

4.6.   Analysis of Research Objectives

Remember to note: Findings collected from the quantitative data were responses collected from 5 Likert scale questionnaires in **question one, question two and question three;** and these will be addressing **the first three objectives** as formulated in chapter one. While in contrast, findings collected from the interview process constituting the qualitative data will be responses collected from the **last question four,** which in conjunction will also be addressing **the fourth objective** outlined in chapter one.

Research Objective One was to evaluate the factors hindering the usage of Management accounting practices in KwaZulu-Natal retail stores. According to Waweru and Uliana (2016), understanding reasons (factors) causing organizations to resist willingly or not willingly the usage of management accounting practices are one of the recommendations towards researchers completing research papers on usage or barriers of management accounting practices in any organizations. The process of shifting and accepting all new changes made of few challenges to face at the earlier stage of using new MAPs is the main reason that brought up many barrier factors hindering the usage of MAPS in organizations (Waweru and Uliana, 2016; Olalekan and Jumoke, 2017; AlManei et al., 2017).

From the survey conducted in KwaZulu-Natal retail stores by the researcher, major proportions of respondents (43 out of 101 respondents and 41 out of 101 respondents) as revealed in Table 2. agreed and strongly agreed by confirming that the lack of knowledge and skills were one of the barrier factor hindering the usage of MAPs in KZN retail stores; which correlates with study conducted by Hasan (2017) who agreed also that the lack of knowledge of MAPs was earlier the reason of the non-usage of costing systems (ABC and CVP) in Jordanian organizations. This

objective was further employed from the hypothesis that evaluated the level of relationship between the barriers to MAP and MAPs in KwaZulu-Natal retail stores, the path coefficient revealed a statistically significant relationship between the two variables at (r=0.570, t>1.96, p<0.01, n=101); this was also evident from the study conducted by Ramezani (2015) where it was found that factors such as: lack of training programs, lack of support from top management, lack of resources, low degree of automation, lack of proper design and implementation structure, implementation costs had a direct influence hindering the usage of ABC (MAPs) in organizations registered in the Tehran Stock Exchange. Therefore, this objective was implemented in this study.

Research Objective two was to evaluate and reveal the management accounting practices used in KwaZulu-Natal retail stores. Baker and Quéré (2019) revealed that MAPs are internal organizational accounting practices that assists organizations not only with the management of costs, but facilitate decisions-making which improve financial performance and sustainable information flow of operations. As these practices are lined up within the MA division which is the heart of corporate management (Asumani, 2019) and occupies the integral part of any organizations, researchers call organizations to shift to their usage within as all useful in organizations. The MA environment has been provided many advanced management accounting systems available in the field to adapt with, such as: TQM, ABC, BS, TA, CRM, EOQ, ABM, JIT, decision making systems, management control systems, etc. (Hussein, 2018; Sameh, 2017; Nkundabanyanga et al., 2017; Waweru and Uliana, 2016; Jeon, 2016; etc.). Studies revealed that organizations need to use a system that meets their needs and suit their business operations and environment (Stead *et al*., 2018; Waweru and Uliana, 2016; Miller, 2017).

From the survey conducted in KwaZulu-Natal retail stores by the researcher, while evaluating the usage of the above-mentioned MAPs, major proportions of respondents overall as revealed in Table 2. disagreed and strongly disagreed on the actual usage of contemporary management accounting practices in KwaZulu-Natal retail stores (See Table 2); and agreed and strongly agreed on the excessive usage of traditional MAPs. This justify the gap on the knowledge of the usage of MAPs in KwaZulu-Natal retail stores which was filled in this study, which was consistent with Johnson and Iyami (2019) which confirmed how MAPs are taught and known in South African

tertiary institutions, but there is a huge gap on the practices of these MAPs and the knowledge and usage of these practices in organizations. Therefore, this objective was implemented in this study in the context of KwaZulu-Natal retail stores.

Research Objective three was to determine the change effect on the practice of Management accounting in KwaZulu-Natal retail stores and reveal the benefits towards the change in MAPs thereof. According to AlManei et al., (2017), current MA literatures suggest that business environment where MA is "applied" appears to have changed with information technology advancement, uprising rate in competition, new focus on quality and customer services and economic recession of a country. The results from the study conducted by Waweru and Uliana (2016) revealed that retail stores that adapted to MA change by shifting to contemporary management accounting practices such as: Activity based costing allocation system and balance scorecard to performance measures have highly improved their financial performance and operations' management. From the survey conducted in KwaZulu-Natal retail stores by the researcher, while determining the change effect on the practice MAPs and revealing the benefits of the change in MAPs as per Table 2. major proportions of respondents overall as revealed in Table 2. Disagreed and strongly disagreed on the benefits accomplished by any organizations that have adapted the change to new MAPs such as: prevent covid-19 damages caused in retail stores by its regulations disagreed by 60.4%, which in contrast during this same covid-19 damages period, Broughton (2020) reported the change (shift) in the usage of Zero-based Budgeting in response to the Covid-19 pandemic outbreak by some Yankee retail stores namely: Guess? Inc., General Motors, Co. and Signet Jewellers Ltd assisted these retail stores cut their costs and reduce the effects of the pandemic.

Unfortunately, Waweru and Uliana (2016); Tuan Mat et al., (2016) highlighted that failure to adapt to the MA changes by not using the contemporary MAPs drive many retail stores in KwaZulu-Natal to face severe problems towards managing their operations and maintaining pressures from the external environment; which is consistent with the results found by the researcher in this study revealing that respondents' proportions of 41.6% disagreed and 34.7%

strongly disagreed that their retail stores would directly respond to environmental change's negative effects on the store performance, respectively. Therefore, this objective was implemented in this study in the context of KwaZulu-Natal retail stores.

Research Objective Four was to demonstrate the effect of change in the practice of management accounting practices in improving competitive conditions, financial performance, costs and revenues allocation and sustainable information flow in KwaZulu-Natal retail stores. As previously highlighted, this is the only objective achieved by the qualitative data findings collected from interview questions.

The interview question one was to indicate the MAPs used to correctly allocate costs and revenues to products or activities, qualitative findings collected revealed that to allocate costs/revenues to products/activities, KwaZulu-Natal retail stores use the: budget strategy, income statement, inventory costing system, penetration costing strategy and product costing strategy, which this study concluded not consistent in this regard. **This study conclusion** is consistent with results from the study conducted by Rundora, Ziemerink and Oberholzer (2013) who evidently reported that there are severe damages traditional costing systems applications and the competition implication have caused with regard to cost misallocation and mismanagement in many organizations whether small, medium or large.

The interview question two was to indicate the MAPs used to correctly allocate costs and revenues to products or activities, qualitative findings collected revealed that to allocate costs/revenues to products/activities, KwaZulu-Natal retail stores use the: budget strategy, income statement, inventory costing system, penetration costing strategy and product costing strategy, which this study concluded not consistent in this regard. **This study conclusion** is consistent with results from the study conducted by Rundora, Ziemerink and Oberholzer (2013) who evidently reported that there are severe damages traditional costing systems applications and the competition implication have caused with regard to cost misallocation and mismanagement in many organizations whether small, medium or large.

The interview question three was to indicate how their retail stores benefit from sustainable information flow generated by management accounting practices used; And the results revealed that sustainable information flow is ensured from management accounting practices in retail stores when : proper market analysis is conducted, record keeping are maintained, inventory stock evaluation are done continuously and communication integration is ensured. For which Hussein (2018) simply suggested that the advanced MA techniques should be placed in place to facilitate the information flow to meet the current inter-dependence observed between companies in the globe.

Therefore, the fourth objective was implemented in this study through the qualitative data findings collected.

To ease the navigation, the next chapter will provide the summary, conclusions and recommendations for this study.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.0. Introduction

This chapter provides the summary, recommendations and conclusions to this research study based on the evaluation of the usage of management accounting practices in KwaZulu-Natal retail stores. The contributing findings from this study to the existing management accounting body of knowledge, limitations of the study and recommended areas for further research are indicated and revealed as well.

5.1. Summary of Findings

The aim of this study was to evaluate the usage of management accounting practices in KwaZulu-Natal retail stores for facilitating the flow of information for internal reporting. The research objectives formulated in this study were to: determine the level of relationship existing between the barriers to management accounting practices (MAP) and cost-management practices, barriers to management accounting practices and management accounting change and barriers of management accounting practices and management accounting practices in KwaZulu-Natal retail stores, determine the level of relationship existing between management accounting change and cost-management practices in KwaZulu-Natal retail stores, determine the level of relationship existing between management accounting practices and cost-management practices in KwaZulu-Natal retail stores, examine the mediating role of management accounting practices and management accounting change on the relationship between barriers to MAP and Cost-management practices in KwaZulu-Natal retail stores and evaluate management accounting practices used by KwaZulu-Natal retail stores to allocate costs or revenues to products or activities and reveal the way management accounting practices used improve financial performance and ensure sustainable information for internal reporting in KwaZulu-Natal retail stores.

However, to achieve the above-mentioned objectives, questionnaires were administered to managers in KwaZulu-Natal (101 managers responded) retail stores to whom quantitative and qualitative data were collected and analyzed using Smart PLS, the Statistical Package for the Social Sciences (SPSS) and Nvivo respectively.

The Chapter one of this study was an introductory chapter that presented the background context of management accounting practices used in organizations (i.e., retail stores), the problem statement, identification of gap between theoretical part of MAPs and their applications, aim and objectives, scope (delimitation) and significance of the study, and the justification for the study. The major challenge encountered in this study is that many KwaZulu-Natal retail stores are failing to adapt with the Change in the MA environment, caused by anxiety feeling and lack of knowledge; which in return hinder (refrain) the successful usage of contemporary or advanced MAPs in KwaZulu-Natal retail stores but rely on the usage of many traditional MAPs. Taking the above into consideration, KwaZulu-Natal retail stores have difficulties in: maintaining pressures from external environments (competitors), correctly allocating costs/revenues to products or activities, effectively managing stocks at hand, efficiently improving financial performance and ensuring sustainable information flow. Therefore, this study had focussed in providing awareness to retail stores' owners and managers of the impact of barriers to MAPs, MA Change, usage of Cost-management practices or contemporary MAPs in order to cop in adequately with the current business environment.

The Chapter two of this study consisted of reviewing the existing authors' conceptual literatures to reveal the gap between the theory and application of management accounting practices as identified in the MA body of knowledge and also fill the gap of the knowledge awareness of but in the context of retail stores in KwaZulu-Natal. A conceptual framework and theoretical framework were compiled by the researcher from the theories reviewed in this study. Note that four theories were reviewed in this study, namely: contingency theory (mostly applied), agency theory, Porters' Five competitive factors theory and stakeholder theory. And many empirical

findings were reviewed to be provided with enough evidences on the awareness about the usage of management accounting practices in many different business industries.

The Chapter three of this study explained in details the methodology applied which outlined the research design, research participants, sample size and sample techniques, data collected techniques, data collection plan, data analysis techniques (instruments), reliability and validity of data, data anonymity, data ethical considerations and the ethical clearance letter provided.

The Chapter Four of this study presented the findings of the analyzed data which was collected aiming to evaluate the usage of management accounting practices in KwaZulu-Natal retail stores and provided the discussion and interpretation of these findings thereof. For the purpose of achieving the objectives assigned for this study, quantitative data collected from respondents were analyzed using the Smart PLS and the Statistical Package for the Social Sciences (SPSS); while the qualitative data collected from interviewees were analyzed using Nvivo software.

However, to answer the **quantitative research questions** and achieve the research objectives, research questions were answered and 7 hypothesis were formulated and tested. The formulated hypothesis were tested using the partial least squares structural equation modelling (PLS-SEM)

The Research Hypothesis One was: to determine the extent at which barriers to management accounting practices affect Cost-management practices usage in KwaZulu-Natal retail stores. And using the path coefficient analysis to determine the relationship between these two variables (barriers to MAPs and Cost-management practices), the results exhibited that there is no statistically significant relationship between the two variables standing with a path coefficient > 0.05 at (r=-0.107, t<1.96, n=101). Therefore, this hypothesis was rejected.

In contrast**,** this study also tested and accepted an **indirect hypothesis** compiling **the total indirect effect** (relationship) between the barriers to management accounting practices and Cost-management practices; where the findings revealed that barriers to MAPs exerted that

there is a significant total indirect effect on Cost-management practices standing at the path coefficient < 0.01 at (r=-0.290).

The Research Hypothesis two was: to determine the level of relationship between the barriers to management accounting practices on Management accounting change effects in KwaZulu-Natal retail stores. And using the path coefficient analysis to determine the relationship between these two variables (barriers to MAPs and management accounting change), the findings showcased that there is a statistically significant relationship between the two variables standing with a path coefficient < 0.01 at (r=0.313, t>1.96, n=101). Therefore, this hypothesis was accepted implying that the barriers associated with the practice of management accounting influences the changes that are adopted in management accounting.

The Research Hypothesis three was formulated to determine the extent at which barriers to management accounting practices influence Management accounting practices usage in KwaZulu-Natal retail stores. And using the path coefficient analysis to determine the relationship between these two variables (barriers to MAPs and management accounting practices), the findings revealed that there is a statistically significant relationship between the two variables standing with a path coefficient < 0.01 at (r=0.570, t>1.96, n=101). Therefore, this hypothesis was accepted indicating that the barriers related to the practice of management accounting influence the usage of management accounting practices in KwaZulu-Natal retail stores.

The Research Hypothesis four was: to establish the level of relationship between the management accounting change on Cost-management practices usage in KwaZulu-Natal retail stores. And using the path coefficient analysis to establish the relationship between these two variables (management accounting change and Cost-management practices), the outcomes revealed that there is no statistically significant relationship between the two variables standing with a path coefficient > 0.05 at (r=-0.105, t<1.96, n=101). Therefore, this hypothesis was rejected.

The Research Hypothesis five was formulated to indicate the relationship between management accounting practices and Cost-management practices usage in KwaZulu-Natal retail stores. And using the path coefficient analysis to establish the relationship between these two variables

(management accounting practices and Cost-management practices), the results demonstrated that there is a statistically significant relationship between the two variables with a path coefficient < 0.01 at (r=-0.452, t>1.96, n=101). Therefore, this hypothesis was accepted implying that the shift to advanced management accounting practices usage has a direct influence in KwaZulu-Natal retail stores that are using Cost-management practices.

The Research Hypothesis six was: examine the mediating role of management accounting practices on the relationship between barriers to management accounting practices and Cost-management practices usage in KwaZulu-Natal retail stores. The findings reveal that management accounting practices fully mediate the relationship between barriers to MAPs and cost-management practices standing at the path coefficient < 0.01. And this is because the direct path from barriers to MAPs and management accounting practices is statistically significant. Therefore, there is an indirect influence exerted by the barriers to MAPs on cost-management practices via management accounting practices at (r = 0.258, t>1.96, p<0.01). Based on the outcome of this statistical analysis, hypothesis 6 was accepted.

The Research Hypothesis seven was formulated to investigate the mediating influence of management accounting change on the relationship between barriers to management accounting practices and cost-management practices usage in KwaZulu-Natal retail stores. And the findings from the test of mediation conducted revealed that management accounting change does not mediate the relationship between barriers to MAPs and cost-management practices standing with the path coefficient > 0.05 at (r=-0.033, t<1.96). Based on the outcome of this statistical analysis, hypothesis 7 was rejected.

However, **qualitative research questions** were opted by the researcher method as well in this study, not only to be provided with non-numerical additional findings inaccessible from the quantitative data findings, but with the aim to also develop a stronger and more robust research proposal further meeting the aim and objectives assigned for this study.

The Question One from the interviews conducted was: to indicate whether store correctly allocate costs and revenues to products or activities and mention which practice(s) do you use? And the findings collected revealed that to allocate costs/revenues to products/activities,

KwaZulu-Natal retail stores use the: budget strategy, income statement, inventory costing system, penetration costing strategy and product costing strategy.

The Question Two addressed to the interviewees was: to what extent management accounting practices improve your store financial performance? And the findings collected revealed practices used in surveyed KwaZulu-Natal retail stores continually improving their daily operations, improving financial performance through the use of budgets / income statement and also guaranteeing the improvement in sales. In addition, findings from 3 out 19 account managers also revealed that the usage of SAP integrated system has been continuously improving their stores' financial performance.

The Question Three asked to interviewees was: to indicate if your store benefits from sustainable information flow generated by management accounting practices and specify how? And the findings collected revealed that sustainable information flow is ensured from management accounting practices in KwaZulu-Natal retail stores when: proper market analysis is conducted, records keeping are maintained, inventory stock evaluation are done continuously and communication integration is ensured.

5.2. Recommendations of the Study

Relying on the summary of findings highlighted above, the following recommendations are placed in place for retail stores:

I. Traditional management accounting practices such as budgeting including many other costing systems, etc. are gaining more usage emphasis in retail stores, while in contrast have been simultaneously reported not consistent and detrimental in retail stores and many other organizations' sustainable growth and survival; however, this study suggests and recommends a quick adaptation to contemporary management accounting practices and management accounting change to facilitate information flow for internal reporting in any KZN retail stores;

II. This study recommends KZN retail stores to adapt to the change in the practices of management accounting and have requested knowledge for using MAPs.

III. The better costs are properly allocated, managed and assigned, the greater retail stores improve performance and profitability; and this enable retail stores to trace profit or loss making products (Waweru and Uliana, 2016). From findings collected, KwaZulu-Natal retail stores do not use proper systems (i.e. budget strategy, income statement, inventory costing systems and penetration costing strategy) to allocate costs/revenues to products/activities. So, this study is in support and common accord with other studies that suggested that the Activity-based Costing (ABC)" has been surveyed, found and revealed to be the practice accommodate perfectly with the management and allocation of material, labour and overhead costs to activities in today's business environments (Apostolide, 2016; Asana *et al.*, 2020; Miller, 2017). Therefore, this study recommends the adoption of Activity based costing and product costing strategy to allocate costs and revenues to products or activities in KwaZulu-Natal retail stores;

IV. The allocation of costs/revenues to products/activities in KwaZulu-Natal retail stores should not be done using the budget strategy, income statement, inventory costing system and penetration costing strategy as these practices are not consistent.

V. Some KwaZulu-Natal retail stores rely on some MA practices including traditional MA practice such as: budgeting to improve their financial performance. While the usage of traditional MA practices to improve financial performance is not reliable, sustainable and consistent; this study suggests KwaZulu-Natal retail stores to use The System Applications and Products to improve financial performance continuously;

VI. To ensure sustainable flow of information for internal reporting, KwaZulu-Natal retail stores should use contemporary management accounting practices such as: the inventory management system as it assists and improves inventory transactions' efficiency and enable information flow capabilities (Biswas *et al.*, 2017);

5.3. Conclusions of the Study

This study made the following conclusions based on the recommendations made:

a. There is no statistically significant influence between the barriers to management accounting practices and Cost-management practices usage in KwaZulu-Natal retail stores;

b. There is a statistically significant total indirect (effect) influence on the barriers to management accounting practices towards Cost-management practices in KwaZulu-Natal retail stores;

c. Barriers to management accounting practices have a statistically significant influence on the changes that are implied in KwaZulu-Natal retail stores' management accounting environment;

d. There is a statistically significant relationship between the barriers to MAPs and management accounting practices in KwaZulu-Natal retail stores;

e. There is no statistically significant relationship on management accounting change towards Cost-management practices usage in KwaZulu-Natal retail stores;

f. There is a statistically significant relationship between management accounting practices and cost-management practices in KwaZulu-Natal retail stores

g. Management accounting practices usage in KwaZulu-Natal retail stores fully mediate the relationship between barriers to MAPs and cost-management practices;

h. Management accounting change does not mediate the relationship between barriers to management accounting practices and cost-management practices usage in KwaZulu-Natal retail stores.

i. The use of Activity-based costing may assist Kwazulu-Natal retail stores in regards to allocation of costs/revenues to products/activities

j. The adoption of System Application and Products (SAP) may improve financial performance.

k. Most of KwaZulu-Natal retail stores use traditional MAPs excessively instead of shifting to change in the MA environment and adapt to advanced MAPs.

l. KwaZulu-Natal retail stores are not fully benefiting enough from the roles (advantages or utilities) played by contemporary MAPs

5.4. Limitations of the study

The biggest limitation encountered in this study is that findings were not analysed separately as per each retail sector industry surveyed (i.e., clothing, food and beverages, hyper/super market and home furnishing), which limited the study to address barriers to MAPs, management accounting change or used cost/management accounting practices effected in each sector **specifically**. Furthermore, as a part of this study dealt with qualitative data collected from interviews with respondents, Corona virus disease 2019 (covid-19) pandemic requiring social distancing was also a challenge encountered during the interview, which limited the study: 2 account managers out of 21 definitely refused to be a part of the interview process with the research because of covid-19 transmission risk. However, all covid-19 safety protocols were adhered to with all other respondents during the interview sections.

And finally, it is convenient that relationships between barriers to MAPs, management accounting change and used cost/management accounting practices may be different from each retail sector specifically (i.e., clothing, food and beverages, hyper/super market and home furnishing); but as the results found were not categorized per retail sector, further investigation is needed for the non-statistically significant relationships found in this study in these retail sectors **specifically**. Therefore, this study was limited in terms of finding these relationship significances in these retail sectors in particular.

However, even though the above-mentioned limitations were present, but all useful data were collected and these limitations did not affect the reliability of this study instruments.

5.5. Suggestions for further research work

Further research should conduct a comparative study analysis of management accounting practices usage in the retail sector with other sectors such as: manufacturing, business services, mining, etc. in KwaZulu-Natal or the whole of South Africa or with other countries for the purpose of expanding the understanding level of the impact of management accounting practices usage in different sectors on the way they facilitate information flow for internal reporting.

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APPENDICES

QUESTIONNAIRE

TOPIC: EVALUATION OF THE USAGE OF MANAGEMENT ACCOUNTING PRACTICES IN KWAZULU-NATAL (KZN) RETAIL STORES

SECTION 1. QUESTIONS RELATED TO THE DEMOGRAPHIC INFORMATION

Answer the following questions by ticking (✓) the correct and most suitable option

1. What business sector is your retail store focussing on?

☐ Food and beverage   ☐ Clothing   ☐ Auto/Speciality retailers

☐ Hyper/Super markets   ☐ Home furnishing   ☐ Other, specify _____

2. What is your gender?

☐ Male   ☐ Female

3. What is your highest education completed?

☐ Doctoral Degree   ☐ Master's Degree   ☐ Bachelor's Degree

☐ National Diploma   ☐ Grade 12   ☐ Other, specify _____

4. How many years your retail store has been operating?

☐ less than 1 year   ☐ 1 to 5 years   ☐ 6 to 10 years

☐ 11 to 20 years.   ☐ 21 to 30 years   ☐ More than 30 years

5. What is your current position at your retail store?

☐ Account Manager   ☐ Branch Manager   ☐ Administration Manager

☐ Controller Manager   ☐ Inventory Manager   ☐ Other, specify _____

6. How many years of working experience do you have in your current position?

☐ less than 1 year   ☐ 1 to 2 years   ☐ 3 to 5 years

☐

☐ 6 to 10 years   ☐ 11 to 20 years   More than 20 years

7. Are the products or services you offer "unique" in your industry?   ☐ Yes   ☐ No

SECTION 2. QUESTIONS RELATED TO THE RESEARCH TOPIC LITERATURE

Using the ranging scale starting as from (1) strongly disagree, (2) disagree, (3) Neutral, (4) agree and (5) strongly agree, please tick (✓) the most suitable option regarding your retail store response:

OPTIONS		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
BARRIERS HINDERING MANAGEMENT ACCOUNTING PRACTICES (COST-MANAGEMENT PRACTICES) USAGE IN YOUR RETAIL STORE						
1.	High usage costs of these new practices					
2.	Lack of knowledge and skills due to the store not organizing training programs					
3.	Lack of basic courses on these practices while studying in tertiary institutions					
4.	The existing systems do not have significant problems					
5.	More complexity expected from using these new practices (anxiety feeling)					
6.	No compatibility between the existing and new practice to be adopted					
7.	Lack of software packages related to new management accounting practices					
8.	Insufficient financial resources due to lack of top management support					
9.	Insignificant benefits observed from using and Implementing new practices					
10	Lack of trust in accounting professionals and experiments implementing the new package system					
OPTIONS		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
EVIDENCE OF MANAGEMENT ACCOUNTING PRACTICES' USAGE IN YOUR RETAIL STORE						
1.	Absorption Costing					
2.	Activity-based Costing					
3.	Balance Scorecard					
4.	Benchmarking					
5.	Brand Valuation					

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
6.	Budgeting, Planning and Forecasting					
7.	Competitor Cost Assessment					
8.	Competitor Performance Appraisal					
9.	Cost leadership strategy					
10.	Cost Volume Profit					
11.	Customer Profitability Analysis					
12.	Customer Relationship Management					
13.	Economic Order Quantity					
14.	Enterprise Resource Planning					
15.	Financial Accounting Statements					
16.	Inventory Management system					
17.	Just-In-Time					
18.	Kaizen Costing					
19.	Marginal Costing					
20.	Material Requirements Planning					
21.	Penetration costing strategy					
22.	Performance Measurement/Evaluation					
23.	Product Differentiation strategy					
24.	Process Costing					
25.	Product Costing					
26.	Standard Costing					
27.	SWOT Analysis					
28.	Targeting Costing					
29.	Total Quality Management					
30.	Zero-based Budgeting					

OPTIONS	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
ROLES AND UTILITIES PLAYED (RESPONSES PROVIDED) BY MANAGEMENT ACCOUNTING PRACTICES (COST-MANAGEMENT PRACTICES) IN YOUR RETAIL STORE AND MANAGEMENT ACCOUNTING CHANGE IMPLICATIONS THEREOF					

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	The store products' information is integrated throughout all departments					
2	All financial statements are automatically generated by the system in use at the store					
3.	Appropriate costing decisions are made to keep products competitive					
4.	Under and overestimation of costs are prevented and unexpected costs are eliminated					
5.	Reliable decisions applied to prevent competition from ruining the purchases / sales of store products					

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No.	Description					
6.	Directly respond to environmental change's negative effects on the store performance					
7.	Directly respond to governmental changes in tax implications, customs and border charges' in the country					
8.	Respond to cultural influence on customers' preferences and behavior					
9.	Properly plan, estimate and control budgeted costs undertaken by the store projects					
10.	Prevent/respond to customers' behavior change placing preferences on buying to "e-retailers"					
11.	Inform customers on new products' arrival in the store					
12.	Ability to detect profitable, unprofitable or expired products					
13.	Products systematically priced, discounts systematically generated and accurate records properly kept					
14.	Keep maintaining and managing good/higher quality costs of products					
15.	Costs and revenues are properly allocated to products or activities					
16.	Ensure an uninterrupted interaction between internal and external users of the store					
17.	Help the store for decision making					
18.	Correctly account for materials (inventory) supplied, outstanding and required in the store					
19.	Ensuring the demand supply chain process from: supply, production, inventory, capacity and distribution planning is applied and followed					
20.	Consolidate systematically the transfer (bank) transactions					
21.	Store information can be accessed anytime, anywhere and changes made are automatically updated					
22.	Respond effectively to economic factors such: inflation, devaluation,…					

23.	Prevent obsolete stocks on hand					
24.	Prevent covid-19 damages caused in retail stores by its regulations					
25.	Respond to threats from competitors as stores use the same products					
26.	Grab market opportunities and ensure sustainable decisions are provided for future market strategies					

SECTION 3. INTERVIEW QUESTIONS <mark>(ADDRESSED TO ACCOUNT MANAGERS ONLY)</mark>

Would you like to please conduct a "face to face" short and simple Interview with the researcher?

☐ Yes   ☐ No

> ➢ **If "Yes",** the Interview will be done for simply 5-minutes after the receipt of this questionnaire answers
> ➢ **If "No", please** provide your **contact detail here** _____
>   so that you may simply conduct a 5-minutes **online/call** Interview with the researcher.

Below are the (3) interview questions

A. Does your store correctly allocate costs and revenues to products or activities? If "Yes", which practice(s) do you use?

B. To what extent do management accounting practices improve your store's financial performance?

C. Does your store benefits from sustainable information flow generated by management accounting practices? If "Yes" or "No", specify how?

The end!

Thank you for your time and kind cooperation.

LETTER OF INFORMATION

Dear Participant,

I, Penuel Mungusa Bosworth, a Master's student at Durban University of Technology (DUT) invite you to participate in the research entitled: "Evaluation of the Usage of Management Accounting Practices in KwaZulu-Natal Retail Stores" for my Master's Degree in Accounting (Cost and Management Accounting). The study aims to evaluate the extent to which management accounting practices are implemented and used in KwaZulu-Natal retail stores.

Title of the Research Study: Evaluation of the Usage of Management Accounting Practices in KwaZulu-Natal Retail Stores.

Investigator/s/researcher: Mungusa Penuel Bosworth, ND: Financial Information Systems, BTech: Cost and Management Accounting

Co-investigator/s/supervisor/s: Odunayo Margret Olaweraju, PhD, CA(NIG), ACMA, CGMA

Brief Introduction and Purpose of the Study: The retail industry is among the most competitive industries for business investors in the world. In order to manage a retail store efficiently and effectively, retail stores' owners or managers must invest more in technology and business process development. Investing in technology is ensuring quality information flow through technology innovations and solutions, calling retail stores to adapt to new technological systems currently available in business environments. However, the purpose of this study is to evaluate the extent at which the usage of management accounting practices facilitate the flow of information for internal reporting in KwaZulu-Natal retail stores.

Outline of the Procedures: The participation to this study is voluntary and the collection of data from participants will be done electronically via Survey Monkey. Through the use of Survey Monkey, data collected from the sample of participants are believed to be effective and efficient. The link to the Survey Monkey will be sent to the research participant via email; and if the participants agree to participate to the study, they will be required to simply accept the survey on the checkbox provided which will redirect them to the questionnaire. However, the time estimated by the researcher to complete a questionnaire is 20 minutes. All questionnaires will be written in English language . A follow-up email will be sent to the retail stores in a period between three (3) weeks to 1-month after the initial date of questions' expedition. However, the researcher will be willing to be contacted via email if participants need more clarification on the questionnaire. Please note that all regulations gazetted in the national State of Disaster under Coronavirus disease 2019 (Covid-19) lockdown will be adhered to for any physical contact if necessary.

Risks or Discomforts to the Participant: no risks or any discomforts are expected to be experienced by the research participants.

Benefits: this research will be beneficial to participants of retail stores (small, medium and large) and owners of any other organizations in terms of how to manage their costs or revenues, communicate with their users and add value to their businesses when using and Implementing management accounting practices. The researcher will also benefit from this study by having this research published in accredited journals and made available in the DUT library.

Reason/s why the Participants May Be Withdrawn from the Study: there will be no consequences whatsoever to the participants if they choose to be withdrawn from the study.

Remuneration: the participants will not receive any remuneration by being a part of this study.

Costs of the Study: the participants will not pay any costs as they participate in the study.

Confidentiality: A DUT ethical clearance letter will be attached for the participants to be ensured that their identity (anonymity) and all information will be kept confidential and will not be used for any other purposes other than this research only.

Results: the results of this study will be published in accredited journals and made available in the DUT library. Any new findings developed in this research will also be made available to participants upon request.

Research-related injury: they will be no costs in form of compensations to be paid by the researcher for any research-related injury as participants are not expected to be injured whatsoever while completing the questionnaire.

Storage of all electronic and hard copies including tape recordings: the researcher will ensure that data collected are safely kept and stored electronically in the flash drive and computer Hard drive encrypted with a personal password. One more copy will be sent electronically to the researcher supervisor. All data collected will be then stored at DUT Faculty of Accounting and Informatics for a 5-years period. This research work can be disposed off after the 5-years period following instructions stipulated in the DUT ethical clearance committee.

Persons to Contact in the Event of Any Problems, Queries or Complaints: The participant can please contact me on 0679051452 or email mungusapenuel@gmail.com; or my supervisor Dr Odunayo Margret Olaweraju on 031-373-5632 or email odunayoo@dut.ac.za; or the DUT Research Ethics Administrator on 031-373-2375. In case of complaints, please contact the Director of the Research and Postgraduate Support Prof Moyo S. on 031-373-2577 or email moyos@dut.ac.za.

Once again, the participation to this study is voluntary and your identity (anonymity) and all your information will be kept confidential for this research.

Thank you for participating

Your cooperation will be highly appreciated

Yours sincerely,

Mr PB Mungusa

21555939

Tel.: 0679051452.

LETTER OF CONSCENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, **Mungusa Penuel Bosworth**, about the nature, conduct, benefits, and risks of this study.

- I have also read and understood the above written information (Participant Information) regarding the study.

- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.

- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.

- I may, at any stage, without prejudice, withdraw my consent and participation in the study.

- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

- I understand that significant new findings developed during this research which may relate to my participation will be made available to me upon request.

By clicking (ticking on) the checkbox, I give my consent to participate voluntarily in this study

GATEKEEPER'S LETTER

09 February 2021

Wholesale and Retail Sector Education and Training Authority (W&R SETA)

Peter Cleopas, Provincial Manager (KwaZulu-Natal Board)

19 Hurst Grove, 3rd floor

201b Clifton Place

 Musgrave, Durban 4000.

Tel: 031 277 0500   Email: pcleophas@wrseta.org.za

Request for Permission to conduct Research

Dear Provincial Manager

My name is Mungusa Penuel Bosworth, a master's student at the Durban University of Technology (DUT). My master's research is titled: "Evaluation of the Usage of Management Accounting Practices in KwaZulu-Natal Retail Stores".

I am hereby seeking your consent to conduct research on wholesale and retail stores organizations that are members SETA programme. The study I am conducting is targeting retail stores organizations that operate in KwaZulu-Natal. Therefore, I need your consent before I proceed with data collection.

I have provided you with a copy of my proposal which includes copies of the data collection tools and consent and/or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me on 067 905 1452 or mungusapenuel@gmail.com.

Thank you for your time and kind consideration in this matter.

Yours sincerely,

Mungusa Penuel Bosworth

Durban University of Technology

Faculty Research Office
Durban University of Technology
Date 12 April, 2021

Student Mungusa Penuel Bosworth
Student Number: 21555939
Degree: Master of Accounting: Management Accounting
Email: 21555939@dut4life.ac.za
Supervisor: Dr. Odunayo M. Olaweraju
Supervisor email: odunayoo@dut.ac.za

Dear Mr Mungusa

ETHICAL APPROVAL: LEVEL 2

I am pleased to inform you that the Faculty Research Ethics Committee (FREC) following feedback from two reviewers has granted preliminary permission for you to conduct your research **'Evaluation of the usage and implementation of management accounting practices in KwaZulu-Natal retail stores'**.

When ethics approval is granted:
You are required to present the letter at your research site(s) for permission to gather data. Please also note that your research instruments must be accompanied by the letter of information and the letter of consent for each participant, as per your research proposal.

This ethics clearance is valid from the date of provisional approval on this letter for one yearAstudent must apply for recertification 3 months before the date of this expiry.

Recertification is required every year until after corrections are made, after examination, and the thesis is submitted to the Faculty Registrar.

A summary of your key research findings must be submitted to the FRC on completion of your studies.

Kindest regards.

Yours sincerely
Dr Mogiveny Rajkoomar
FREC Chair
Faculty of Accounting and Informatics
Durban University of Technology
Ritson Campus
Durban, South Africa
4001

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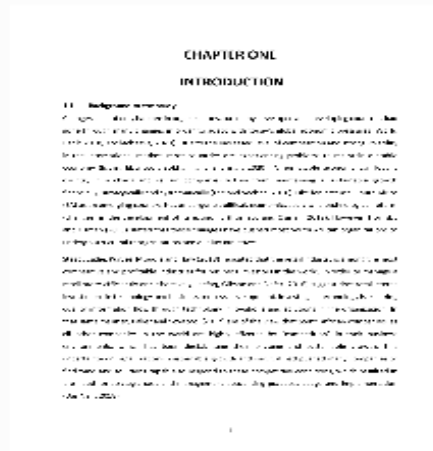
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To whom it may concern

This is to certify that I have proofread the paper by Penuel Bosworth Mungusa entitled: **"Evaluation of the Usage and Implementation of Management Accounting Practices in KwaZulu-Natal Retail Stores".**

I have made any corrections to grammar and spelling which I felt necessary.

Regards,

Modupe Shola
0628849072
Modupeshola34@gmail.com