MINI-DISSERTATION

THE EFFECT OF COST REDUCTION ON PROFITABILITY IN SHOPRITE HOLDING LTD SOUTH AFRICA

by

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[redacted]

RESEARCH/MINI-DISSERTATION

Submitted in fulfilment of the requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION (MBA)

in the

FACULTY OF MANAGEMENT AND LAW

Turfloop Graduate School of Leadership

at the

UNIVERSITY OF LIMPOPO

SUPERVISOR: Prof. C. C. Ngwakwe

2024

DECLARATION

I, Lidec Mthunywa, declare that this mini dissertation is my own work that has been produced by adhering to all academic ethical standards. The research has not been previously submitted for the purpose of any degree or another examination in another university. All the materials that I have used and referenced have been specified and acknowledged with all correct and complete referencing.

______________________________ __________________

Lidec Mthunywa Date

ACKNOWLEDGEMENTS

To God be the glory. Without you Father God I would not have traversed this academic journey and let alone produced this sterling work. I am always and forever indebted to you for every good thing that comes my way.

My supervisor, Professor Collins Ngwakwe, your tutelage, guidance and perseverance is par excellence. I wish the world of academia could replicate you such that there could be many of you in the length and breadth of the universe to meticulously nurture and expedite the development of an African child. You inspire confidence and encourage hard work every time. To the entire team of lecturers and support staff for the MBA programme at TGSL – thank you, your contribution is evident in this piece of writing.

A special appreciation goes to:

My wife, Babazile Gcinaphi Mthunywa, affectionately known as Vee, from whom I draw strength and courage to do more. You and our children are remarkable.

My classmates, colleagues in you I found brothers and a shoulder to cry on.

The only technical sister I met in class, Promise Mondlane, you made this journey easy for me, your support will never be forgotten and thank you for everything.

My employer, the Mpumalanga Provincial Legislature. Your investment in me has to yield good returns for the organization – you are indeed an employer of choice and demonstrated that you are a caring organization.

ABSTRACT

This research examined the effect of cost reduction on profitability in Shoprite Holdings Ltd South Africa Ltd South Africa. The objectives of the research were:

To analyse the effect of cost of goods reduction on net profit in Shoprite Holdings Ltd South Africa South Africa.

To evaluate the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa.

To accomplish these objectives, the study pursued a positivism paradigm since it sought to measure quantitative variables which are cost of goods sold, operational costs and net profit. Data was collected from secondary means of published financial statements for Shoprite Holdings Ltd South Africa and analysed using linear regression models.

The results of the study found that there is a positive correlation between cost of goods sold and net profit and that cost of goods sold could account for 80,4% of net profit. The regression for this objective equation was estimated: $Y = 256.190 + 0.037X_1 + e$. Similarly, there was a positive correlation between operating cost and net profit and that operational cost accounted for 79% of the net profit. The derived estimated regression equation was: $Y = 356{,}593 + 0{,}132X_2 + e$.

The study recommended that the retail industry could benefit from the understanding that cutting back on OPC and COGS can increase net profit. For academics, the study recommended that the limitation of the period considered in the study could be used by others in the academy to learn about shortcomings of limited data in correlational regression. It is expected that future research could address the same study when there is more data generated.

Key words: Cost of goods sold; Operating cost; and Profitability

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ACRONYMS

ANOVA:	Analysis of Variance
COGS:	Cost of Goods Sold
JSE:	Johannesburg Stock Exchange
LuSE:	Lusaka Stock Exchange
NSX:	Namibian Stock Exchange
OPC:	Operating Cost

CHAPTER 1

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

The chapter introduces the topical areas of the study, "The effect of cost reduction on profitability in Shoprite Holdings Ltd South Africa Limited". Retailers are faced with making the decision of whether to shutdown existing stores or to continue stretching the network of their store by opening new ones. Common logic suggests that shutting down a store may decrease any retailer's costs, while increasing the retailer's network through opening new stores is expected increase generation of wealth and maximize profit. An overview of cost reduction as a profitability strategy is outlined detailing how cost reduction is essential in every business. The chapter has a brief description of Shoprite Ltd which is the context that the researcher has chosen as a unit of analysis.

For ease of reference this chapter has articulated a statement of the problem; rationale or significance of the study; purpose of the study that articulates aims, research questions and objectives of the study; and definition of concepts.

1.2 Background to the study

Increased business expenses, including operating expenses, decrease net sales and lead to a decrease in profit. The expenditure incurred during the production of goods sold and the amount of operating expenses decreases net sales which affect a business' net profit. Cost reduction is a cost leadership strategy which companies use to offer reasonable prices in the market whilst increasing their financial gains through profit. Where cost leadership is used, it enables an organization to strategically position itself as the affordable producer of goods and services in the market and effectively compete with the price of the goods and services produced. Argyres, Mahoney and Nickerson (2019) define cost leadership as an organizational skill to acquire a strategic edge amongst competitors by applying valuable cost management theories and practices when reducing product costs and removing frivolous expenses.

There are many strategies that companies use to maximize profitability, and one of them is cost reduction. The increase in competition for products produced is a critical price differentiator in the market. Some companies launch new products without focusing extensively on the volatility of competitive markets. Within the volatile competitive markets and environments, Kraus, Clauss, Breier, Gast, Zardini and Tiberius (2020) contend that companies must look for significant strategic imperatives to amend their challenging business context. Their view is complemented by Danso, Adomako, Amankwah-Amoah, Owusu-Agyei and Konadu (2019) who argue that the application of significant strategic imperatives would enable companies to conduct their business fluidly to achieve sustainable success over competitors and maximize business profitability.

Hiromoto (2019) acknowledges that companies often find implementing a strategy to be difficult because business leaders must continuously look at how they will reduce costs within the different operations levels during the production of goods and services. A company is perceived to be above its competitors if, in its product mix, it centralizes offering goods and services more cheaply than others (Hansen, Mowen & Heitger, 2021). For this, the organization must develop a cost leadership strategy that will place them in a position of competitive advantage over others. It is against this background that Ferreira, Coelho and Moutinho (2020) argue that staying ahead of business competitors is a strategic outcome of being able to outsmart competitors in the market and demonstrate a performance that is above reproach and that sustains good achievement of results. Furthermore, a scholarly argument is advanced that competitive advantage provides an understanding that the resources and business strategy available to a company has a strong impact on creating a competitive advantage.

1.3 Statement of the problem

Companies that produce products that are regarded in the market as too costly will lose market share and could face the threat of business closure. According to Khanna (2021), companies losing their market share because of a lack of demand for their goods and services could be forced to shut down, decrease operational outputs, or consider developing a reduction strategy to counter the impact of the loss. As a result, companies should balance the number of items produced with the profit margin that is targeted to be generated. Helmold (2020) contends that often the total targeted is realized after taking out the different production costs from the revenue that a company has generated. It is further noted that an increase in production costs could have a undesirable effect on the number of goods sold which will also affect the margins of total profit.

Thus, it is imperative to deal with the relationship between the cost of producing goods and the impact of net profit. Many variables that could impact the relationship, amongst others, are retrenchment, selling of machinery and equipment, purchasing new machinery that can speed up production, terminating non-productive business facilities, and many more factors. This could require companies to develop strategies to prevent loss of profit and seek to establish whether their reduction strategy has had any impact on the cost of production and the loss of profit.

Within the retail industry, many companies still report loss of profit. The global challenge of organizations' financial and non-financial performance in the 21st century has recorded a loss in profit which is attributed to cost reduction, poor insight and lack of agility to manage uncertainty in the business environment and globalisation (Arokodare & Asikhia, 2020). The production losses that happen in the operations of any company have an impact on the targeted profits which has a direct impact on net profit. Andreoni, Robb and Van Huellen (2021) found that many firms in South Africa and internationally sustain their businesses through debts and if they cannot generate profit, they are likely to be liquidated, hence it is important for them to capitalize on growth prospects through cost reduction.

The main goal of companies is therefore to produce goods that will help them to generate income and remain competitive in the market. Profit-making refers to a company that provides desired products or services to consumers at a reasonable price (Foss, Klein & Bjørnskov, 2019). At the same time, Schoemaker, Heaton and Teece (2018) believe that establishing a reliable customer base and maintaining above-board performance over other competitors operating in the industry can demand a lot of commitment from the corporate leaders, as it tries to produce desired goods or services which bring profit. Firms that fail to produce products that are in demand or affordable to customers can incur wasteful expenditure from their operations and would have to react to the loss of income.

The retail industry needs information to assist in its profitability drive. However, South African literature has little information regarding the effect of cost reduction on retail companies' net profit, including in relation to Shoprite Holdings Ltd South Africa Ltd South Africa. This research aims to contribute by addressing this gap in the existing literature.

1.4 Purpose of the study

1.4.1 Aim of the study

The study aims to examine the effect of cost reduction on the profitability of Shoprite Holdings Ltd South Africa Ltd South Africa. It will do this through analysis of the effect of two costs, that is, goods sold and operating cost on net profit.

1.4.2 Objectives

To analyse the effect of cost of goods sold reduction on net profit in Shoprite Holdings Ltd South Africa South Africa.

To evaluate the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa.

1.4.3 Research questions

What is the effect of the cost of goods sold reduction on net profit in Shoprite Holdings Ltd South Africa South Africa?

What is the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa?

1.5 Motivation/rationale of the study

The retail sector in South Africa is amongst of the largest contributors of the country's economic growth and sustainability of livelihoods. The retail industry supplies food and other important goods to the country and also contributes significantly to the creation of employment; these activities are performed by various retail companies that compete for the market share and to stay ahead of competitors. Examining cost reduction becomes necessary and the research will enable companies to acquire scientific data on how they can compete against each other whilst generating desired profits.

The research analysed the cost of goods sold and operating costs as cost reduction variables that contribute to companies' potential to increase profit. Effective implementation of cost reduction in the retail industry is expected to yield financial stability and position a company for long term success. Furthermore, the research study examined whether the implementation by companies of cost reduction strategies could decrease their expenses which in return could increase their profit margins.

1.6 Significance of the Study

The retail industry needs information to assist in its profitability drive. However, literature has limited information regarding the effect of cost reduction on retail companies' net profit. Therefore, this research aimed to address gap in the existing literature. The study further intended to assist other scholars as a source of reference with contemporary findings and recommendations on the topic.

Fatihudin (2018) argues that profit can be viewed as a measure of accomplishment for a business. It was envisaged that the study could contribute to the body of knowledge on the effect of cost reduction on retail companies' net profit. The findings of the study could assist business executives to understand and reflect on how they contribute to the performance of the retail industry.

The contribution of this study aimed to expand on existing research on cost reduction through examination of the effect of cost reduction on profitability using net profit. The results of this study should thus lead to further research in the field on the effect of cost reduction on profitability, which would contribute to the further development of knowledge of business management.

1.7 Definition of concepts

Cost of goods sold: According to Syverson (2019) this refers to the aggregated direct costs incurred when producing the goods sold by a firm. This definition was applied in this research and included other related costs of all elements used notwithstanding the materials and labour.

Operating cost: Rangaswamy, Moch, Felten, Van Bruggen Wieringa and Wirtz (2020) define operating expenses as the money used by the company in the operationalization of the business. In this research operating costs was defined as the current costs used in the normal daily operations of the company

Profitability: According to Al Breiki and Nobanee (2019), profitability is the extent of understanding how business operations result in financial gains or give acceptable profit margins. However, in this research profitability was defined as a measure of net profit. According to Soewarno and Tjahjadi (2020), measuring the net profit is one of the best instruments of business success and a key indicator of business analysis.

1.8 Organization of the study

The research study comprises five major sections: an introduction, literature review, research methodology, findings and interpretation, and conclusion.

Chapter 1: Introduction

The introduction of this research study provides a clear understanding of the research problem and justification for an in-depth study of the problem. A background of the problem as it relates to the context is presented to show that the study is worthy of examination. It is envisaged that readers appreciate the setting in which the problem was identified; hence a brief history of Shoprite was provided to stimulate interest on the subject of the study.

Chapter 2: Literature Review

Chapter two is the literature review that compares academic views about cost reduction and profitability. The literature began with a theoretical link of Porter's theory to this research. A critical examination of each of Porter's Five Forces was outlined to demonstrate the significance and relevance of the theory in the study. Thereafter, the review focused on literature headings such as:

effect of cost reduction on net profit;

effect of cost of goods reduction on net profit;
effect of operating cost reduction on net profit.

Chapter 3: Methodology

Chapter three presents the methodology of the study which relies on quantitative research methods that are in alignment with the research paradigm, research design, research method, sampling and sampling technique, sample size, data collection, data analysis, and reliability and validity of the research. The researcher used purposive sampling which is a non-probability sampling method in a quantitative study to identify participants in the study. Data was collected through secondary means of published financial statements for Shoprite.

Chapter 4: Data Analysis and Findings

Chapter four presents the data and findings as drawn from the secondary sources. Since this study is correlational, the data provides a pictorial analysis of the results which inform readers about the skewness of the data. When presenting findings and interpretation of data, the researcher was mindful of maintaining objectivity and reporting accurately on what the data revealed.

This chapter is grounded on statistical analysis methods which are core fundamentals of quantitative analysis; these procedures range from simple arithmetic such as means and medians to more complex analysis involving correlations and regressions. In this research the regression data analysis model was used since it is in alignment with the research objectives.

Chapter 5: Summary of Findings, Recommendation and Conclusion

Finally, chapter 5 summarizes the findings and interpretations relative to the research problem and its sub-problems. The study compared its findings with other previously reported studies and identified similarities and dissimilarities; the results could either support or refute an existing theory;

or alternatively it could offer suggestions for how future research could further advance frontiers of knowledge about the topic under study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

According to Hiver, Al-Hoorie Vitta and Wu (2021), a literature review is a scholarly work that demonstrates in-depth knowledge and broad mastery of a specific topic in the context of academic literature. The purpose of a literature review, as defined by Juntunen and Lehenkari (2021), is to gain an in-depth understanding of produced research and discussion on a particular topic or research area and to present that information in the form of a written report. In this research, the literature review was divided into two main sub-headings, viz. theoretical background, and a review of empirical research in three areas. The three areas were the impact of cost reductions, cost of goods sold, and operating expenses on net profit. Approaches with theoretical implications have been cursorily cited to reveal fragmented academical ideation around the concept of cost reduction in pursuit of profitability in profit making companies.

2.2. Theoretical underpinning

The theoretical underpinning of the study encapsulates the origins of the study, different application of the theory in business and further explains how the theory finds relevance in the study of cost reduction. The study is theoretically based on Porter's Five Forces model.

2.2.1. Origins of the Porter's Five Forces

According to Goyal (2020), Porter's five forces theory is a strategic framework that provides cooperation through a clear analysis of those competitive strategies. This theory was developed by the eminent marketing strategist Michael Porter. Porter's work had a significant impact on business strategy. The theory was presented in Porter's 1980 book, *Competitive*

Strategy: Techniques for Analyzing Industries and Competitors. Porter's theory is based on the structure-behaviour-efficiency paradigm, which considers the market as an ecosystem where everything is interconnected.

When establishing a company, one must consider many factors, one of the most important of which is the competitiveness of the field (Farida & Setiawan, 2022). The strength of Porter's five forces varies from industry to industry, but together they determine long-term profitability in a given industry sector. The five forces has consequential bearing on the prices of goods, competitive investment, share price, potential profits, profit margins, and industry size. Essentially, Porter's five forces help organizations assess their profitability, which is the cornerstone of the existence of many businesses.

2.2.2. Strategic Imperatives of Porter's Five Forces

According to Ford (2020), Porter's five forces include the numerical figures and ability of the firm and its business rivalries, potential new business players, suppliers, buyers, and substitutes that affect the company and its profitability. At a strategic level, Porter's Five Forces analysis can guide business strategies to increase competitive edge when applied meticulously. Porter's Five Forces according to Ford (2020) is a business analysis model that explains why different industries are able to maintain different levels of profitability. These five forces are often used to measure competitive intensity, industry or market attractiveness, and profitability.

Competitiveness, also known as competition between existing business adversaries, requires many various strategies such as lowering prices, launching new products, advertising campaigns, and improving services. Intense competition usually occurs when the industry is mature, growing slowly, and competing players are also of equal strength or size (Sheth, Uslay & Sisodia, 2020). Competitiveness serves as a barrier to monopolistic profitability of the firms because the costs of competition tend to rise and thus the industry reaches a profitability limit. The only way a company can expand or increase its market share as articulated by Sheth, Uslay and Sisodia (2020) is to attract customers and to keep customers engaged and loyal. In such a situation, the benefits of a cost management strategy would be price competitiveness.

McVea and Freeman (2023) argue that the solitary application of cost management strategy may not be favourable because all competing firms would implement the same strategy and lower their prices sharply since competitors would be focus their business strategies to price. In such a situation, McVea and Freeman (2023) propose that a differentiation strategy can provide the company with better opportunities because it would be able to retain loyal customers and they can stay with the company. The reason it may retain some loyal customers is that competitors may find it difficult to meet the special needs of customers in a narrow market segment.

According to Gupta, Ivanov and Choi (2021) when it comes to a focus strategy, firms have the advantage of maintaining the differentiating needs of their customers in such a way that competitors cannot take advantage of them. Gupta, Ivanov and Choi (2021) further contend that it cannot be denied that companies implementing such a strategy have the opportunity to charge a higher price for higher quality or offer a low-cost product to a small and specialized customer base.

Firms that are likely to be profitable have a likelihood to attract new competitors because they could enter the industry and participate in making a profit. New entrants, as argued by Goyal (2021), can create competition as it targets the same customers, resulting in higher marketing, sales and advertising costs for all competitors as differentiated demands continue to grow. The barriers offered by the cost management strategy are economies of scale which can be regarded as one of the major obstacles of a business strategy. According to Goyal (2021) in some industries, a company’s competitiveness is dependent on its ability to produce its product or service at a low enough cost to offer a low competitive price. New entrants simply cannot succeed against the company's experience gained over the years in price competition.

Gupta, Ivanov and Choi (2021) argue that companies that choose a differentiation strategy have a competitive advantage, because usually these companies have many customers who are loyal to the company's authentic brand. It is against this backdrop that potential new entrants are eschewed from entering the industry, hence competition is limited and profitability is increased. Furthermore, even companies that adopt a focussed strategy within a long period, develop an understanding of customer likes and preferences by researching them which sets them on a superior position and make it a daunting task for any potential entrant into the industry. By acting in this way, the focus strategy can also act as a barrier to entry (Gupta, Ivanov & Choi, 2021).

According to Gupta, Ivanov and Choi (2021) substitutes can have two noticeable effects on firms' ability to compete and make profit. First, substitutes set the ceiling price for the products and services of an industry; surpassing the set ceiling that will cause customers to switch to available alternative products. Second, alternate product may form competitive rivarly in the industry to increase their marketing and sales promotion activities in order to retain customers. This automatically puts pressure on industry competitors to reduce prices as low as possible and spend more money to elicit and keep customers, which can reduce industry sales and profits.

According to Bijmolt, Broekhuis, De Leeuw, Hirche, Rooderkerk, Sousa and Zhu (2021), the price of selling goods can be one of the determining factors that shape buyer's decision whether to buy the product or service or simply change to the alternative products or services. Furthermore, the expectation of buyers do their own collection and delivery contribute to the reduction of the price charged on the products or services. In addition to a cost management strategy, a differentiation strategy can also be seen as a way to remove or reduce the potential risks of the alternative or substitute products. When firms offer a variety of products that have no alternatives, this reduces the risk of competition. It also effectively reduces the threat of substitutes by implementing strategies focused on differentiation.

In the corporate world, Ford (2022) contends that buyers are significant role players in the existence of an organization. The actions of buyers are known to have a positive or negative effect on the profitability of an industry rivalry role players with their purchasing choices. Ford (2022) further argues that the level of profitability in all industries comes from the bargaining power of buyers in purchasing the services and products offered. It could be argued that buyers can increase or decrease profitability by requiring rivalries to commit on expenditures that cater for the provision of other valuable elements or items of a product, such as better product quality, extended payment periods, advertising support and other services.

According to Dutt (2019) customers can be said to be strong if they equally negotiate for prices with industry players, especially if they plane field is price-sensitive and allows them to use their influence primarily to reduce prices to lower levels. A firm can attract large and powerful buyers when a firm adopts cost leaders because it has the differentiable strategy to sell at lower prices to such buyers. Dutt (2019) further argues that it is an advantage for the firm to be the cost leader in the field; one of the advantages is to win the trust of the customers in the company. Thus, the firm can sustain its competitive edge in the industry because other competitors could not attract strong and loyal buyers.

According to Farida and Setiawan (2022), suppliers retain more value for their gain by selling products at exorbitant prices, compromising quality or services, or transferring other costs to other industry players. This is the suppliers' power held in most industries, which can eventually squeeze the profitability of an industry that cannot pass on rising costs to its prices. Farida and Setiawan (2022), drew a logical hypothesis that if a supplier has a significant impact on a company's profitability, then it has significant power. It trickles seamlessly that there should not be substitutes or alternatives for products or services offered by a group of suppliers because the suppliers would have greater authority and control in the sector where they operate.

According to Kesavan, Lambert, Williams and Pendem (2022), this suggests that such firms could pass on supplier price increases to the end buyers through advanced pricing strategy in the differentiation scenario and focus or niche strategies. The difference from a focus strategy is that a small volume is involved in the implementation of a focus strategy, although a company implementing a strategy focused on differentiation can easily pass on price increases from suppliers. At the same time, they are isolated from an effective supplier for a cost management strategy. Kesavan, Lambert, Williams and Pendem (2022) found that this is predominant in sectors that suppliers have an important customer base. Thus, the profit suppliers make is closely linked to the sector of operation, and they want to protect the sector with a acceptable price and buyers' retention.

2.2.3 Different application of the theory

According to Kumar, Shrivastav, Adlakha and Vishwakarma (2020), the Porter's Five Forces is a firm's analysis model that provides firms with the reasonable tools to explain why various sectors can uphold continuous levels of profitability when compared to other competitors. Using Porter's Five Force theory can assist a company to assess whether to enter a sector and understand the design of its differentiated competitive strategy. The theory is highly flexible without a rigidity in application and can be used to establish strengths and weaknesses in various sectors. Kumar, Shrivastav, Adlakha and Vishwakarma (2020), contend that this is a model that shapes each industry through the identification and scrutiny of the five competitive industry forces which help to look for the weaknesses and strengths of the industry. The "Five Forces" are brought together in Figure 2.1 below.

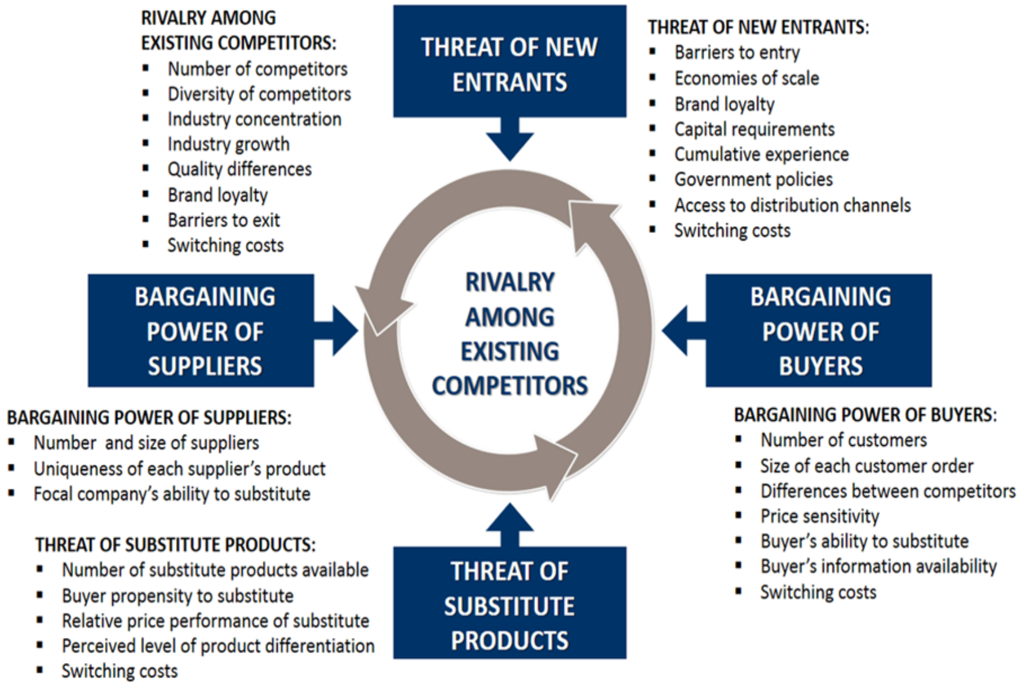

Figure 2.1. Porter's Five Forces (Muljani & Ellitan, 2019)

Porter's model is applicable to any sector of the economy with an intent to comprehend the level of competition within the sector and increase a company's profitability longevity. According to Bruijl and Gerard (2018), Porter's Five Forces analysis helps companies comprehend underlying rationale that affect profitability in a particular sector and assist in decision-making. The decision-making choices entail the option of moving into a particular industry, a choice of increasing production capacity within a particular sector or opting to initiate peculiar strategies to position the company to be competitive. Most often, Porter's Five Forces analysis is used as a strategic tool to identify an sector's structural framework to determine a company's strategy that a company ought to follow. Considerations of the number and strength of a company's competitors, potential new entrants, suppliers, customers, and substitute products that affect the company's profitability form the cornerstone of Porter's Five Forces analysis (Sulistyadi, Wening and Herawan, 2019).

Porter’s generic strategies hold the view that cost reduction strategy can be achieved through cost leadership or differentiation (Islami, Mustafa & Topuzovska Latkovikj, 2020). Cost leadership, according to Gupta, Ivanov and Choi (2021), is an instrument used by companies to reduce the cost of their products to gain greater market share and profit. Furthermore, cost leadership can also be viewed as one of the strategic tools used by companies to manufacture and produce high-quality, standardized products and sell them at lower prices than their competitors. Azimovna, Ilkhomovna and Shokhrukhovich (2022) argue that making good products and selling them in bulk at lower prices increases sales and profits and expands a company's business.

Muljani and Ellitan (2019) suggest that Porter’s strategy of differentiation deals with product differentiation and entails distinguishing a company’s products from similar products of competitors. They further say a differentiated product should be unique and should be distinguished by its shape, quality, durability, reliability, serviceability, style, design or other product characteristics. Mikalef, Krogstie, Pappas and Pavlou (2020) argue that a product differentiates itself from competitors’ products when its shape changes in size, or physical construction.

Fatima and Tufail (2021) argue that cost-saving production relies on two strongly interrelated principles. These are a significant reduction in input costs and the localization or de-localization of production activities. According to Pérez (2020), a dramatic reduction in input costs means a higher reliance on subcontracting and all types of labour reduction methods. This includes moving production to countries with more capital-friendly tax regimes and placing or relocating production activities to low-wage countries known as territorial spaces with low direct wages and little or no social protection.

The paradigm of cost reduction is also beginning to converge on the economic model of digital platforms (Hussain, 2021). According to Ranieri, Digiesi, Silvestri and Roccotelli (2018), the concept of cost reduction means new ways of producing and pricing things. However, this does not mean a complete lack of continuity with the previously productive organization. A cost-saving approach, according to Yame (2021), seeks to achieve comfortable profit margins through lean manufacturing, even when producing small batches.

Acknowledged hereto is Dutt's (2019) view that consumers are interested in low costs and therefore low prices, but workers will suffer from falling wages and/or labour intensity in the medium to long term. At this level, Birshan, Meakin and Strovink (2019) pose a question of how to manage cost-cutting dilemmas as producers and consumers develop and mediate preferences between different spheres of private life.

Since one of Porter's Five Forces shows that cost reduction can improve profit; this research has tested this theoretical assertion by examining if cost reduction in Shoprite enhances its profit gains. The model has been broadly applied to analyse the sector structure of a firm including the organisational strategy that a company follows. It is used to any sector and firm's size and also serve as a strategic frame that provides a holistic view of profitability drivers and assist to detect performance impediments and disruptive trends early (Muljani & Ellitan, 2019).

2.2.4 Porter's Five Forces and cost reduction

According to Sulistyadi, Wening and Herawan (2019) the intuitive improvements of Five Forces Analysis has resulted to the different forces to used as measuring instruments that can be used to measure the sectors competitive drivers. These five forces are: the threat of new entry; rivalry among existing firms; threat from substitute products; bargaining power of buyers; and bargaining power of suppliers. According to Mikalef, Krogstie, Pappas and Pavlou (2020) the five forces analysis is utilised by the firms to measure the level of competition, provide a solid base to understand the firm juxtaposed to another, determine the sector's profitability because they influence the prices, costs, and required investment of a firm in a sector. It is every business interest to safeguard their profits from rivalries, thus the application of the five forces is a critical component of any firm. Mikalef, Krogstie, Pappas and Pavlou (2020) further argue that the Porter’s Five Forces model is an essential component of strategic analytical that assist firms to design their competitive strategy and shape the competitive balance in pursuit of increasing their profit margins.

Chen, Kumara and Sivakumar (2021), define cost reduction as the process of reducing a firm’s expenses to increase profits. Typically the focus is on reducing unnecessary expenditures that do not add value to customers and improving processes to enhance doing more with less resources. Similarly, Cakranegara, Kurniadi, Sampe, Pangemanan and Yusuf (2022) contend that cost reduction ensures the availability of goods at lower prices which stimulates demand, leading to increased employment through industrialization and a general improvement in the standard of living. Other benefits of cost reduction include improving cash flow; remaining competitive; streamlining operations; negotiating with suppliers; using data and technology; enabling automation; and increasing profits.

According to Chen, Kumara and Sivakumar (2021), when a firm implements the cost-focus strategy, it seeks to provide products or services at a lower cost than rivalries could for a specific market segment or niche. This is attained by purposefully targeting a smaller customer segment and pitching operations and firm’s operations to maximum levels with an aim of achieving cost savings results. Chen, Kumara and Sivakumar (2021), further contend that cost reduction strategies, practices and principles are designed to increase strategic performance of the firm and include every element of a firm’s performance, from organisational design, filling of vacant positions to laying off employees. Executing various functions by adhering to business processes, allocation of resources, designing job profiles, eliminating wastes are fundamental of cost reduction in any firm. Fatima and Tufail (2021) argue that firms can reduce costs by identifying wasteful practices, correcting inefficiencies, upgrading digital resources, encouraging remote work, automating processes, and reducing overheads.

2.3 Review of the empirical literature

The following sections present a review of the empirical literature which focuses on the effect of cost reduction on profitability, the effect of cost of goods on profitability and the effect of operational cost on profitability. The study examines the relationship between direct material, direct labour and direct expenses and the impact they have on net profit.

2.3.1 Effect of cost reduction on net profit

Liu and De Giovanni (2019) define cost reduction as the process of reducing production expenses in a company to maximize profits. The process involves meticulously identifying the cost drivers of the company's expenditure and eliminating the unnecessary expenditure that does not offer benefits to customers while also implementing plans to increase performance. Haessler (2020) places emphasis on the fact that cost reduction seeks to instantaneously generate savings within a short space of time to reduce costs to increase a company's revenue and net profit.

Sari and Sedana (2020) argue that profitability measures a company's ability to generate maximum revenue with minimum costs. Ultimately, profits increase when sales increase and/or costs decrease. However, achieving profit is not easy because sales and costs may not increase, and excessive focus on increasing sales can create risk if demand suddenly or unexpectedly drops. Cutting costs by using lower quality materials can undermine the customer base. Kesavan, Lambert, Williams and Pendem (2022) contend that there is, however, limited evidence to support the effectiveness of trying to increase revenue and cut costs at the same time since prioritizing both might not yield positive results. There is limited evidence supporting the effectiveness of simultaneously pursuing revenue expansion and cost reduction. Moreover, the existing empirical and theoretical literature suggests that emphasizing both objectives at the same time might not yield favourable outcomes.

As highlighted by Hoang and Phung (2019), profits and production costs impact the cash flow of businesses and affect the overall financial health of a company. With more income and less spending, there is more income available to finance the day-to-day business or pay for direct costs. Dey, Sarkar, Sarkar and Pareek (2019) caution that there should be an equilibrium between sales prices and sales volumes such that cost reduction can bear profits in a company. Furthermore, this relationship has a corollary effect such that the reduction of cost could have an impact on the quality of produced goods and the decrease in prices to foster sales. This can eradicate potential gains and result in a net-profit loss. However, Naidoo and Gasparatos (2018) argue that cutting costs in an informed manner does not necessarily translate to a company reducing the quality of products produced, but it helps to increase sales which consequently maximizes the profit of the business.

2.3.2 Effect of Cost of Goods Sold on net profit

Dewi, Devi and Masdiantini (2021) define the cost of goods sold (COGS) as the direct costs of producing the goods that a business sells which include the cost of materials and labour directly used in manufacturing the goods. Paramount to the definition of COGS is the direct cost which should be considered in producing a good; this includes, amongst other things, the cost of the materials and labour used to create the good.

According to Welc (2022), COGS directly affect a firm’s profits as COGS is subtracted from revenue. For companies to ensure making higher profits, it is prudent to manage their COGS. Companies can decrease the cost to be incurred on its COGS through stablishing strategic partnerships and ethical business relationships with suppliers. This could be achieved through doing more with less resources in the production process and that could increase business profitability. Fildes, Ma and Kolassa (2022) provide an expanded definition of COGS as the process of procuring or fabricating the items that a company offers within a period, so that costs included are those that are directly tied to the generation of the items, considering labour, materials, and production overheads.

According to Hirdinis (2019), a company's financial statements often include several different measures of profit, wherein profit is generally viewed as the revenue generated less the cost of doing business to generate that revenue. This means that the production costs and sales volume have a direct and undisputable impact on a company's profitability potential. Fliedner (2018) argues that COGS is an important measurement in financial statements because it is deducted from a firm's revenue to calculate the overall profit margin.

Since COGS are costs of doing business, Welc (2022) advises that they should be recorded as business expenses in the income statement. The recording of the cost of goods sold provides important information to analysts, investors and managers with almost accurate estimations of a company's earnings. Mahdi and Khaddafi (2020) argue that net income decreases as COGS increases. Paradoxically, while the increase of COGS decreases net income and has positive spins-off to tax rebates, the company will bring less profit to shareholders. Bansal (2021) contends, therefore, that companies should keep their COGS low so that their net profit can remain high.

Importantly, Fadilah, Rosdiana, Hernawati, Maemunah, and Nurcholisah, (2022) argue that COGS is an aggregated cost derived from resources directly used to generate revenue, such as company inventory or labour costs that can be attributed to a specific sale. COGS is calculated by adding the various direct costs necessary to generate revenue for the business. Paradoxically, fixed costs such as executive salaries, rent and stipends are not included in COGS. However, inventory is a particularly a significant element of COGS, and this view is accepted in accounting rules which allow various approaches to incorporate inventory in the calculation.

According to Triwidatin (2022), direct material costs are the costs of inputs or raw materials and components used to create a product. The materials must be easily distinguishable from the finished product. Direct material costs are one of the few variable costs associated with the manufacturing process; as such, it is used to control the flow of production processes. Profit is sales minus all fully variable costs. Hussain, (2021) succinctly defines direct materials as the physical objects built into the product. For example, the baker's direct materials are flour, eggs, yeast, sugar, oil and water.

According to Fadilah, et al (2022), direct materials are used to categorize different costs of a firm into separate elements to ensure proper financial analysis in cost accounting. The direct materials are infused into the total costs of COGS produced, which are further divided into cost of goods sold and cost of ending inventory. According to Triwidatin (2022), direct materials categorization usually includes the sum of all verifiable materials present in the completed list of products, which are raw materials and subassemblies. In addition, direct materials include the amount of scrap and damage that normally occurs in the manufacture of goods. Triwidatin (2022), argues that if there is too much waste and spoilage, they are not considered as part of the materials directly related to the product, but rather general production costs.

Khanna (2021) contends that cost of goods sold should include the cost of all inventories sold during the fiscal year. However, in practice as alluded by Ferreira, Coelho and Moutinho (2020) firms appear not to know the inventory units that have been sold and depend on accounting practices such as first-in-first-out (FIFO) and last-in-first-out (LIFO) to gauge the numerical value of inventory sold within a fiscal year. Ferreira, Coelho and Moutinho (2020) cautioned that if the amount of inventory added in COGS is relatively high, it will distort or put more pressure on the firm's gross profit. As a result firms tend to opt for accounting prescripts that yield a lower COGS figure to improve their reported profitability.

Stuebs, Bryant, Edison, and Stanley (2022) identified that COGS has limitations that often create opportunities for accountants to manipulate during earnings management and that enables them to conceal the true picture of a company's financial position. These limitations include assigning to inventory more production costs than incurred; exaggerated discounts; exaggerated returns to suppliers; changing the amount of stock at the end of the financial year; overvaluation of inventory in the warehouse; and failure to record obsolete inventory. When inventories are artificially inflated, COGS values are lower, leading to escalated gross profit margin resulting in an inflated net profit.

2.3.3 Effect of operating cost on net profit

According to Rangaswamy, Moch, Felten, Van Bruggen Wieringa and Wirtz (2020), operating expenses are defined as the physical and monetary expenses that a company expends in the normal execution of business operations in pursuit of its business goals and objectives. Operating costs, as argued by Sinambela and Djaelani (2022), are necessary and unavoidable for most businesses and are the ongoing costs of doing business that are not related to production. Basically, these constitute day-to-day operating expenses of a business. All costs that are not directly related to the production of a product or service are recorded in operating costs. The company's operating expenses include rent, compensation, salaries, office supplies and missions.

Some companies, according to Danso, et al. (2019), successfully reduce operating costs to gain a competitive advantage and increase revenue. Fu and Zhu (2019) contend, however, that reducing operating costs can also threaten the integrity and quality of operations. Hence, finding the right balance can be difficult, but it can bring significant rewards. Dang, Vu, Ngo and Hoang (2019) concluded that exorbitant or rising operating costs can reduce a company's net profit. Thus, company management should create strategies to harmonize or reduce operating costs while seeking a balance between the need to produce products and the customer needs. Hiromoto (2019) argues that if operating costs become too high, management can raise the prices of their products to maintain profitability, but by doing so, they may lose customers to competitors who can produce similar products at lower prices.

Beerbaum, Piechocki and Puaschunder (2019) observe that, as with any financial metric, operating expenses must be compared across multiple reporting periods to understand any trends. According to Nariswari and Nugraha (2020), operating expenses are deducted from turnover to obtain business profit and are reflected in the company's income statement. Holistically, operating costs are current costs incurred in the normal business operations of the company. Companies can sometimes cut costs in a certain quarter, which temporarily increases their revenues. Blankespoor, deHaan and Marinovic (2020) caution that investors should track costs to see if they are increasing or decreasing over time, comparing results with revenue and profit trends.

Operating costs which can sometimes be called operational expenses, operating expenses, operating expenditure or OPC could be charges incurred when maintaining and administering a company's daily activities. Operating costs encompass various expenses such as labour costs, employee pensions, health insurance, returns on sales made, cost reduction, and payback. For a company to be more profitable, it does not only amass profit through sales and revenue, but the reduction of operational cost becomes one other fundamental aspect to increase profit.

Fu and Zhu (2019) suggest that strategies to reduce operating costs should include establishing a cost-reduction objective which could be achieved through thorough evaluation of a company's expenses. This could enable the company to identify and reduce production waste in duration and resources used, streamline procedures, eliminate salary packages, and invest in newer and faster technologies.

A company can also embrace technology that can streamline and automate business functions. For a company to be effective in its quest to reduce operating costs, it is important to review and reduce unutilized services. A company's net profit can be increased by reducing production costs and increasing sales and revenue.

Furthermore, cost-effectiveness is a central component of a company’s supply chain management. An effective supply chain strategy assists in the process of reducing excess supply chain management costs and their direct impact on a company’s procurement, storage, packaging, and delivery. This cost-reduction frees up additional capital and makes it easier to invest in the company to expand and improve the business.

2.4 Determinants of net profit

Apart from the cost of goods sold and operational cost, net profit can be affected by other macro-economic variables such as economic growth, unemployment, the GDP per capita, inflation rate, real interest rate, imports and exports of a country, or minimum lending rate. Generally, these macroeconomic determinants affect the broader population rather than an individual and they serve as determinant of the performance of the economy by examining the interplay of the functions of businesses and government and their role in revenue generation and collection.

According to Yomralioğlu and Silahtaroğlu (2023) macroeconomic factors primarily involve analysis of aggregated demand and supply that help to explain why national income fluctuates because of inflation and deflation. Macroeconomic factors assist investors in making sound investment decisions such that if applied properly they will help investors to know whether the economy of a particular country is appealing or not. The performance of any firm cannot be separated from the influence of macroeconomic factors since they have significant influence on a firm's profitability.

There are other micro-economic variables which by and large are company specific. These microeconomic factors deal with matters of resources allocation and price-related differentiation that affect the growth of an economy. According to Yomralioğlu and Silahtaroğlu (2023) there are six microeconomic business factors affecting any business, viz, customers, employees, competitors, media, shareholders and suppliers. These factors look at the elements such as regulations and taxes that may affect a business and individuals' business decisions. Businesses use microeconomic principles to make decisions regarding labour, productivity, nature of goods and services offered, economic utility and pricing.

The application of microeconomic principles assists businesses to predict how consumers will behave and make astute decisions given limited or scarce resources. Rakesh, Abdussalaam, Ravishankar and Singh (2022) contend that as businesses strategically fight for the market share, their rivalry is influenced by distinct elements in their products, the number of sellers, barriers to entry, information availability, and locations. The levels of rivalry in most sectors are between perfect competition and monopolistic firms. Where companies are in perfect competition there is an equilibrium between marginal profit and marginal cost and where companies are in a monopoly their marginal profit equals marginal revenue that is incremental revenue generated.

2.5 Historical background of Shoprite

Shoprite Holdings Ltd South Africa Ltd. is a holding company with its headquarters located in Cape Town, South Africa (Mahlangu & Makhitha, 2019). The Johannesburg Stock Exchange's (JSE) Food Retailers and Wholesalers' Sector is where the company is principally listed. Shoprite Holdings Ltd South Africa also has secondary listings on the Lusaka Stock Exchange (LuSE) and the Namibian Stock Exchange (NSX), according to Pwaka (2021). In 1979, the Shoprite Group was founded when a chain of eight stores in Cape Town was purchased for one million Rands. Shoprite adopted a number of expansion plans and acquisitions during the ensuing three decades, which helped the company develop to become a R92 billion enterprise today. Shoprite opened a store in Namibia in 1990 as part of its expansion. Nair (2021) points out that Shoprite adopted an aggressive expansion plan across Africa despite confronting hurdles. Shoprite Holdings Ltd South Africa continues to have the biggest African footprint among South African retailers, despite the fact that some of these endeavors failed to live up to expectations and led to store closures.

Derbyshire (2022) states that Shoprite underwent a substantial growth, quadrupling its store count after acquiring the Grand Bazaars in less than four years after being public on the JSE. In 1991, this boom picked up even more speed, virtually doubling when the national Checkers supermarket chain was acquired. The business swiftly grew to employ 22,600 people over 241 locations. Derbyshire (2022) states that Shoprite opened Shoprite Lusaka in Zambia in 1995, being the company's first successful venture into Central Africa. In order to prepare for its foray into franchising, the company bought distributor Sentra in the same year. Shoprite expanded its holdings to include 146 furnishing stores and 157 supermarkets when it paid one Rand to South African Breweries for the OK Bazaars store network in 1997. According to Derbyshire (2022), the Group opened its first stores in

Zimbabwe and Uganda in 2000. Two years later, Shoprite purchased the Champion French chain's outlets in Madagascar.

According to Badal (2021), Shoprite purchased Computicket, a South African ticket vendor, and Foodworld, a chain of thirteen stores, in 2005. The business also launched its first Shoprite Liquor Store. Additionally, Shoprite opened its first store in Nigeria in the Victoria Island neighborhood of Lagos. The Shoprite Group gained access to JSE financial resources in 2008 when it was listed in the JSE Top-40 Index of blue-chip businesses. Metcash Trading Africa (Pty) Ltd and the Shoprite Group reached an agreement in March 2011 for the purchase of Metcash's franchise division, which was sold to Shoprite Checkers. Franchise agreements with franchisees running retail locations under brand names including Friendly, Seven Eleven, and Price Club Discount Supermarket were included in this sector.

In support of Shoprite Holdings Ltd South Africa' resilience, Mathekga (2021) argues that the global Covid-19 pandemic has affected a number of sectors of the South African financial system, including the Shoprite Group. In contrast, Cawe (2021) claims that the Shoprite Group generated a lot of new job chances during the epidemic rather than terminating its employees. Shoprite and other retail employees are regarded as essential workers, and the retailer has made great progress in putting important legislative procedures into place by enacting policies and Acts that benefit the public and employees alike. Shoprite employed a mix of temporary and full-time workers, labor agents, and informal laborers.

Shoprite Holdings Ltd South Africa has expressed awareness of the difficulties that many South Africans experience. According to Pillay (2022), the Shoprite group will continue to sell its products at reasonable rates and pledges to keep prices low in order to as closely as possible correspond with price inflation.

In accommodating the different levels of communities, Shoprite Holdings Ltd South Africa established various retail outlets that caters for different Living Standard Measures (LSM) that allow them to compete with other retailers. The classification of customers by LSM levels ensures that Shoprite Holdings Ltd South Africa pioneers' access to affordable goods and services that offer customers better value, choice and wide-range to different products. This creates an ecosystem for customer value by introducing cost reduction strategies and offer value-added services.

2.6 Conclusion

The literature review in this research has provided evidence that there are gaps that need to be filled in the study of the effect of cost reduction on profitability in the retail industry. The literature illuminated contrary views from different scholars which the research study navigated around. This was done through the use of credible sources and appropriate research methods to examine the effect of cost reduction on the profitability of Shoprite Holdings Ltd South Africa Ltd South Africa.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains and presents the research methodology followed in pursuit of achieving aims and objectives of the study and addressing research questions. As contemplated in the previous chapter, research design demonstrates the scientific nature of the research study. Models that support the regression data analysis have been developed to simplify the analysis of the data. Fahrmeir, Kneib, Lang and Marx (2022) affirmed that regression analysis is a trusted method of establishing which variable has an impact on the research topic that is being studied. The researcher chose correlation and regression analysis techniques because the variables involved in this research are quantitative financial variables.

3.2. Understanding research methodology

According to Ravitch and Carl (2019), a research methodology encompasses the set of techniques and procedures employed to collect and analyse data pertaining to a particular research subject. The process of designing a study is utilized by researchers to achieve their objectives through the utilization of selected research instruments. According to Dawson (2019), a research methodology is simplified as the fundamental principle that directs the research and influences the overall approach taken when conducting research on a particular topic. It also plays a crucial role in determining the specific research methods selected. According to Dawson (2019), a distinction can be made between research methodology and research method. While research methods refer to the specific tools utilized for data collection, research methodology encompasses a broader framework or approach employed in the research process.

3.3 Research paradigm

According to Bogna, Raineri and Dell (2020), a research paradigm is a procedure that encompasses different methods, models or patterns for undertaking research emanating from one of the two research methods, positivism or interpretivism. This research selected a positivism paradigm since it has quantitative variables, that is dependent and independent variables. The dependent variable of net profit and the independent variables of cost of goods sold and operations cost. Alharahsheh and Pius (2020) argue that positivists believe in a single reality and this reality can be measured and understood in the same way. As a result, quantitative approaches that include statistical or mathematical tools are used to quantify this reality.

3.4 Research method

The study applied quantitative research methods which are in alignment with the research paradigm and the research design. Braun and Clarke (2022) define quantitative research as a research procedure used to collect data and use numerical inferences to analyse these data which can yield patterns and averages, allowing the researcher to make predictions, test causal relationships and favour generalization of results to the broader population. In this study correlation analysis were used to determine the impact of cost reductions on the profitability of Shoprite Holdings Ltd South Africa by focusing on cost of goods sold and operating cost. The regression data analysis model was used since it is in alignment with the research objectives. The study conducted a regression analysis at a 5% or 0,05-significance level.

Insights drawn from complex numerical data and analysis was used to measure the effectiveness of the data when examining the correlation between the dependent and independent variables of the study. Sallis, Gripsrud, Olsson and Silkoset (2021) contend that quantitative research methods are applicable in cases where factual conclusions to gather noteworthy experiences are fundamental. These methods were considered prudent for this study since it is posited to collect numerical data and apply statistical models to analyse it. A one-way analysis of variance (ANOVA) was conducted for the two dependent variables, that is cost of goods sold and operating cost against independent variable net profit. Variance analysis is a statistical technique that separates observed variance data into different components for use in further tests. The purpose of the study was to confirm the adequacy of the regression model using ANOVA statistics.

3.5 Research design

According to Mertova and Webster (2019), research design refers to the overall mapping of the research strategy chosen to put together the various elements of research systematically and logically, in pursuit of solving the research problem that a study seeks to address.

In this study, the researcher followed a correlation study design to measure the relationship between the dependent variable net income and independent variables of the cost of goods sold and the operating expenses. The correlational design study was done by using a single case company of Shoprite Holding Ltd, South Africa, which was purposively chosen. The study examined correlations between variables without the researcher controlling or manipulating the variables. Potharaju and Sreedevi (2018) argue that correlation studies indicate that the magnitude and direction of links between two or more variables can show positive, negative, or zero increase.

3.6 Research area

This research focuses on the Retail industry, mainly on Shoprite Holdings Ltd South Africa Ltd, the South African retail company located in all the provinces of South Africa with its head office in Cape Town.

3.7 Population

For sourcing credible information, this research considered companies engaged in the retail of goods and services which form the population of the research. This population includes Food and Drug Retailers and General Retailers which include Shoprite Holdings Ltd South Africa listed on the Johannesburg Stock Exchange (JSE) in South Africa. Neboh and Mbhele (2021) provide information on 29 JSE-listed companies which are in the Food and Drug Retailers and General Retailers which include Shoprite Holdings Ltd South Africa SA. Haywood, De Lange, Musvoto and De Wet (2021) argue that retail goods and grocery stores are the specialities with the biggest potential for retail development among South African retailers.

3.8 Sampling method and sample size

There are various sampling methods, including probability and non-probability sampling. (Mertova & Webster, 2019). The research used the non-probability sampling approach, specifically the purposive aspect of non-probability sampling. In purposive sampling approach, the researcher selects a sample based on a reason that may provide adequate answers to the research questions and achieve the research objectives (Mertova & Webster, 2019). Of the retail businesses listed in the JSE, the researcher selected to study Shoprite Holdings Ltd South Africa Ltd. This choice is informed by the researcher's purpose, namely to select the largest South African retail company which is committed to reaching and developing the local population.

De Vass, Shee and Miah (2021) argue that Shoprite Holdings Ltd South Africa Ltd is the largest African retailer that managed to pay an appreciation bonus to its personnel at both the shop floor and distribution levels of over R102 million. Furthermore, they reveal that the company is committed to local development through investment in local distribution centres, which serve as a cost-cutting measure and enables Shoprite Holdings Ltd South Africa Ltd to have a supply network that reaches the wider population of South Africa. Shoprite Holdings Ltd South Africa Ltd was selected as the sample for the study since, according to Perumal (2021), it is the biggest retailer, while Naidoo and Gasparatos (2023) found that the company's success is based on a technique that targets shoppers from all pay structures and income groups.

3.9 Data collection method

This research collected and analysed data through secondary means of published financial statements for Shoprite Holdings Ltd South Africa Ltd. Largan and Morris (2019) argue that secondary analysis is an elastic method and can be applied in different ways, but it also a pragmatic exercise and a logical method with systemic and evaluative steps, similar to the collection and evaluation of primary data.

Zolnikov, Hammel, Furio and Eggleston (2021) expatiate the understanding of secondary analysis as a pragmatic journey that utilizes the same basic principles of research as studies using primary data, where steps must be followed as with any research method. Data was collected from published Shoprite Holdings Ltd South Africa Ltd annual financial reports for seven years since the amalgamation of different companies that became Shoprite Holdings Ltd South Africa. The data collected from the financial reports focused on cost of goods sold, operating costs and net profit.

3.10 Data analysis

Pandey and Pandey (2021) define data analysis as a way of finding important information by scrutinizing and analysing data, while quantitative data analysis is the process of analysing data that is numerically based or can be easily manipulated into countable quantities. Mishra, Pandey, Singh, Gupta, Sahu and Keshri (2019) contend that quantitative data analysis relies on describing and interpreting research items using mathematics or statistics because it attempts to interpret the collected information using numerical variables and statistics.

Quantitative data analysis should be understood as a way of analysing information based on numbers or data that can be easily changed into numbers whilst sustaining the original meaning. Statistical analysis methods are core fundamentals of quantitative analysis, and these procedures can range from simple arithmetic such as means and medians to more complex analysis involving correlation and regression.

Regression analysis was used to test the correlation with the use of the Statistical Package for Social Sciences (SPSS). Fahrmeir, Kneib, Lang and Marx (2022) argue that regression analysis is a trusted method of establishing which variable has an impact on the research topic that is being studied. The researcher chose correlation and regression analysis techniques because the variables involved in this research are quantitative financial variables. This technique is in alignment with the research paradigm which is positivist; it is also aligned with the correlational design and the quantitative research method.

In this research the regression data analysis model is in alignment with the research objectives and represented by the following equations:

Research Objective 1: to analyse the effect of cost of goods reduction on net profit.

In the quest of examining the relationship between the cost of goods (COGS) and net income, the research used the analysis model:

$Y = a + \beta_1 x_1 + e$

Where:

Y = net profit,

a = constant

β_1=coefficient,

x_1= cost of goods sold; and

e= error

Research Objective 2: to evaluate the effect of operating cost reduction on net profit.

In examining the relationship between operational costs (OPC) and net income, the research used the analysis model:

$Y = a + \beta_2 x_2 + e$

Where:

Y = net profit,

a = constant

β_2=coefficient,

x_2= operational cost; and

e= error

3.11 Ethical considerations

Mishra and Alok (2022) argue that ethical considerations in research are an acceptable set of principles that guide research methodologies and procedures. Amongst these principles are participating voluntarily, getting informed consent, preservation of anonymity, maintaining confidentiality, protection from potential harm, and ensuring that results are communicated. This research used quantitative methods where formalized principles underlie a rigorous research process that progresses from the formulation of research questions, research design, and selection and analysis of materials to interpretation and conclusions (Wright & Caudill, 2020). The researcher did not require informed consent, since the data to be utilized was freely available on the website of Shoprite Holdings Ltd South Africa Ltd.

The following ethical considerations were adhered to:

- The researcher upheld honesty and trustworthiness by avoiding plagiarism, falsifying, or falsifying information, or taking credit for someone else's work. The researcher provided citation and proper referencing for any information sourced from other scholars or sources.
- The researcher upheld academic integrity by acknowledging sources, appropriately crediting the words and ideas of academics and not plagiarising any work produced by other scholars. The researcher adhered to the institution's research manual and subjected his research report to the University acceptable tool that test the level of plagiarism.
- This research did not harm the participants including the company under discussion and was carried out until the results are published, ensuring transparency, disclosure, and reproducibility of the research procedures. Ethical clearance was sought from the University ethics committee before the study was conducted.
- The researcher assumed the consent of the research subjects because the research subject is a public company that publishes its reports for public consumption.
- The researcher ensured that the use of data would not cause damage or suffering to the subject.

3.12 Validity and Reliability

Sürücü and Maslakçi (2020) contend that reliability and validity are terms used in evaluating the quality of research. The concepts of validity and reliability demonstrate the applicability of the methods chosen or test-measure the accuracy of every item. Sileyew (2019) provides a simplified definition of reliability as the consistency of measurement, and validity as the accuracy of measurement.

The research used reliable mathematical and statistical methods to collect and analyse data. With the financial information extracted from published annual reports of the company, it was possible to achieve the same result consistently with the same methods and under the same conditions. It is against this understanding that the measurement would be considered reliable. The research findings of the study can be generalized to the retail industry and any sector that uses cost reduction for profitability.

According to Stein and Swan (2019), validity refers to the measurement precision of a method or what it intends to measure. This study was intended to be of high validity, produce corresponding results to the real elements and indicate differentiation of the physical or social world. In addition, the researcher ensured validity by using and testing different regression statistics validity tests, such as the coefficient determination, and the error terms. Tecse, Romero and Castaneda (2021) is an important measure of the level of change in the dependent variable as a result of change in the independent variable. Furthermore, the standard error indicates how well the regression model explains the interactions between the independent variable and the dependent variable (Yalçınkaya, Balay & Şenoğlu, 2021). The study uses measurable variables of revenue of net profit and value of capital of the cost of goods sold and operating cost.

3.13 Limitations

Purposive sampling is easier and cheaper to access, but it has a higher risk of sampling bias, hence the conclusions of the study were limited to Shoprite

Holdings Ltd South Africa Ltd. That means the inferences that can be drawn about the population are weaker than with probability samples, and the conclusion may be more limited.

However, the researcher considered the research study purpose and expectations in choosing a single case of Shoprite Holdings Ltd South Africa Ltd. Therefore, future researchers may address these limitations in their studies.

3.14 Conclusion

This chapter explained the research procedure followed to undertake the study. Prudent choices were made when choosing the research paradigm and research methods of the study considering that this study encapsulates quantitative elements that must be scrutinized with application of research methods. In this research the regression data analysis model is in alignment with the research objectives and represented by the following equations relevant to study the objectives.

This research used quantitative methods including formalized principles underpinned by rigorous research process that progressed from the formulation of research questions, research design, and selection and analysis of materials to interpretation and conclusion.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1. Introduction

This chapter presents the correlational regression results, data analysis and findings as drawn from the secondary sources of published Shoprite Holdings Ltd South Africa annual financial statements and the half-yearly reports. Since this study is correlational, the data provides a pictorial analysis of the results which are expected to tell readers about the skewness of the data. During the presentation of findings and interpretation of data, the researcher did not interfere with their authenticity but reported what the data revealed.

This chapter is grounded in statistical analysis methods which are core fundamentals of quantitative analysis, and for the purpose of this study analysis involving correlational regressions were applied. In this research the regression data analysis model was used since it is in alignment with the research objectives.

4.2. Data analysis

The analysis of data provides answers to the research questions that were crafted after setting the broad aim of the study which in this instance was broken down into two research objectives. The study addressed the research objectives and research questions below:

Research Objectives:

> To analyse the effect of cost of goods reduction on net profit in Shoprite Holdings Ltd South Africa South Africa.
>
> To evaluate the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa.

Research questions:

What is the effect of the cost of goods sold reduction on net profit in Shoprite Holdings Ltd South Africa South Africa?
What is the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa?

4.3. Research Objective 1: To analyse the effect of cost of goods reduction on net profit

Table 4.1: Correlations Between COGS and NET PROFIT

		COGS	NET PROFIT
COGS	Pearson Correlation	1	,897**
	Sig. (2-tailed)		<,001
	N	13	13
NET PROFIT	Pearson Correlation	,897**	1
	Sig. (2-tailed)	<,001	
	N	13	13
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Author’s Own

The values for correlation range between -1 and +1 which can be used to contrast the strength of the relationship between two different variables. According to Table 4.1 above, cost of goods sold and net profit show a statistically accepted positive correlation ($r = 0,897$; $p < 0,001$). The findings show that there is a significant positive relationship between the cost of goods sold (dependent variables) and net profit (independent variables). By implication, this means that a change in one construct has a positive effect on the other.

4.3.1. Regression analysis

Table 4.2 shows the results of net profit regressed on cost of goods sold. In the research, the strength of linear regression was measured by determining the coefficient of determination, or R^2. R^2 explains the amount of variation explained or accounted for by the regression model. The study conducted a regression analysis at a 0,05 significance level, obtaining summary statistics from table 4.2 underneath.

Table 4.2: Model Summary between the NET PROFIT and COGS

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,897[a]	,804	,786	662,778	2,038
a. Predictors: (Constant), COGS					
b. Dependent Variable: NET PROFIT					

Source: Author's Own

One of the study's objectives set out to assess the effect of cost of goods sold on net profit. The results show that the value of R^2 is 0,804. This implies that the predictor (COGS) can account for 80,4% of the change in net profit. The range of R^2 is between values 0 and 1; the higher the value of R^2 the better the model fits the data. The results obtained shows a high R^2 value of 0,804 which indicates that the model fits that data. The results of the study show a Durbin-Watson statistics of 2,038 which indicated that there is a negative autocorrelation detected in the sample.

4.3.2. Analysis of Variance

Variance analysis is a statistical technique that separates observed variance data into different components for use in further tests. The purpose of the study was to confirm the adequacy of the regression model using ANOVA statistics. One-way ANOVA was used to evaluate the effect of cost of goods sold on net profit and to determine if all samples were the same. In addition, a one-way ANOVA was used to determine if there was a statistically significant difference between cost of goods sold and net income. The results of the study are presented in Table 4.3 below.

Table 4.3: Analysis of (COGS)Variance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19791646,101	1	19791646,101	45,055	<,001[b]
	Residual	4832017,130	11	439274,285		
	Total	24623663,231	12			
a. Dependent Variable: NET PROFIT						
b. Predictors: (Constant), COGS						

Source: Author's Own

Based on the ANOVA statistics above, it was determined that the significance level of the regression model is 0.01%, The model is highly accurate in predicting the effect of COGS, as evidenced by its significance value (P < 0.001), which is less than 5%.

4.3.3. Coefficients of determination

Coefficients of determination were used as indicators of the direction of the relationship between the estimated cost of goods sold and the net result. If a positive coefficient is found it would be an indication that as the value of the independent variable rises, the mean value of the dependent variable would also rise as well.

The p-value of the significance level section was combined to indicate the significance of the association between the response and the predictors. At 95% confidence, the p-estimate was reduced to a true significance ratio of less than 0.05. As such, a p-value greater than 0.05 indicates a statistically unacceptable relationship between the dependent variable (net profit) and the independent variable (COGS).

With all other variables in the model maintained constant, the coefficient value indicates the extent to which the average value of the dependent variable varies when the independent variable increases by one unit. It is crucial to maintain the same values for the other variables since this allows the researcher to examine each variable's impact separately from the others.

Table 4.4: Regression result coefficient

Co-efficient								
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	256,190	567,285		,452	,660		
	COGS	,037	,005	,897	6,712	<,001	1,000	1,000
a. Dependent Variable: NET PROFIT								

Source: Author's Own

In the process of examining the relationship between the cost of goods sold (COGS) and net income, the research used the analysis model:

$$Y = a + \beta_1 x_1 + e$$

$$Y = a + \beta_{COGS} x_1 + e$$

Where:

Y = net profit,

a = constant

β_1=coefficient,

x_1= cost of goods sold; and

e= error

The linear regression coefficients for Table 4.4 yielded statistical estimates of the actual population parameters and the regression equation was estimated:

$$Y = 256.190 + 0.037X_1 + e$$

On the derived estimated regression model above, the constant 256.190 indicates that if the predictor COGS were zero rated, the NET PROFIT would be 256.190. If x_1 (COGS) is increased Y (NET PROFIT) also increases. The model estimates a coefficient for cost of goods sold to be 0,037. This value indicates that for every cost of goods sold increase, net profit increases by an average of 0,037. This value is the effect size for the relationship between cost of goods sold and net profit and it is an unstandardized effect size because it employs the natural units of the dependent variable (net profit) in Rands.

4.4. Research Objective 2: to evaluate the effect of operating cost reduction on net profit

Pearson correlations were used in this study to establish the strength and direction of the research construct between operation cost and net profit. According to Table 4.5 below, the research variables show significant positive correlation whereby operation cost and net profit has $r = 0,889$ when $p < 0,001$. This finding shows that there the correlation between operating cost and net profit is positive and significant. This mean that changing one construct has a positive influence on the other.

Table 4.5: Correlations between OPC and NET PROFIT

Correlations			
		NET PROFIT	OPC
NET PROFIT	Pearson Correlation	1	,889**
	Sig. (2-tailed)		<,001
	N	13	13
OPC	Pearson Correlation	,889**	1
	Sig. (2-tailed)	<,001	
	N	13	13
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Author's Own

4.4.1. Regression analysis

The study obtained the results as projected on table 4.6 below when net profit is regressed against operation cost. The strength of any linear regression can be estimated using the coefficient of determination or R-squared. R-square explains the amount of variation explained or accounted for by the regression model. Regression analysis was performed at a 5% significance level.

Table 4.6: Model for OPC and NET PROFIT

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,889[a]	,790	,771	685,448	2,110
a. Predictors: (Constant), OPC					
b. Dependent Variable: NET PROFIT					

Source: Author's Own

The study aimed to assess the effect of operation cost on net profit. The results showed that there was moderate positive correlation of r = 0,889 between operation cost and net profit. Furthermore, the results indicate that the value of the adjusted r^2 = 0,790 which implies operation cost can account for 79% of the change in net profit. The range of r^2 should be between 0 and 1; the higher the value of r^2 the better the model fits the data. r^2 = 0,790 is between 0 and 1 and has a higher value which indicates that the model fits the data. The Durbin-Watson statistic of 2.110 in this instance suggests that the variable residuals were not serially associated.

4.4.2. Analysis of Variance

Analysis of variance is a statistical technique that breaks down distributed data into its various components for use in further testing. In this study, we tried to confirm the goodness of fit of the regression model using ANOVA statistics. One-way analysis of variance was used to assess the effect of operating expenses on net profit and to determine whether all samples were equivalent. In addition, one-way analysis of variance was used to determine whether there was a statistical difference between operating expenses and net profit. The results of the study are presented in Table 4.7 below.

Table 4. 7: Analysis of Variance table

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19455437,399	1	19455437,399	41,409	<,001[b]
	Residual	5168225,832	11	469838,712		
	Total	24623663,231	12			
a. Dependent Variable: NET PROFIT						
b. Predictors: (Constant), OPC						

Source: Author’s Own

Based on the above ANOVA statistics, the significance level of the regression model was determined to be 0.0%, which means that the significance level (P<0,001)) is a good model for predicting the effect of OPC.

4.4.3. Coefficients of determination

In establishing the direction of the relationship between operation cost and net profit, coefficient of determination was used in the study. The p-value 0,549 shows a statistically insignificant relationship between operation cost and net profit.

At 95% confidence, the p-estimate was reduced to a true significance ratio of less than 0.05. As such, a p-value, which is greater than 0.05 shows a statistical non-significant relationship existing between the dependent variable (net profit) and the independent variable (OPC).

Table 4. 8: Coefficient of determination

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	356,593	576,456		,619	,549		
	OPC	,132	,021	,889	6,435	<,001	1,000	1,000
a. Dependent Variable: NET PROFIT								

Source: Author's Own

$$Y = a + \beta_1 x_2 + e$$

$$Y = a + \beta_{OPEX} x_2 + e$$

Where:

Y = net profit,

a = constant

β_2 =coefficient,

x_2 = operational cost; and

e= error

Looking at the findings on Table 4.8 the researcher derived an estimated regression equation of

$$Y = 356{,}593 + 0{,}132X_2 + e$$

The intercept of 356,593 in the developed regression model indicates that the net profit would be 356,593 if the OPC was zero. When the independent variable changes by one unit while the other variables remain constant, the dependent variable changes as indicated by the coefficient value. To isolate each variable's impact, it becomes important that other variables are kept constant.

Net profit rises in tandem with an increase in OPC. According to estimates, the OPC coefficient is 0.132, meaning that net profit rises by an average of 0.132 for each unit increase in operating costs. The effect size of the link between operation cost and net profit is represented by this coefficient, which uses the dependent variable's native units—net profit in Rands.

4.5. Discussion of findings

This section discusses the findings per research objective.

4.5.1. Research objective 1: to analyse the effect of cost of goods reduction on net profit in Shoprite Holdings Ltd South Africa South Africa

The findings on objective 1: to analyse the effect of cost of goods reduction on net profit drawn from Shoprite Holdings Ltd South Africa' data show a significant correlation between cost of goods sold (COGS) and net profit. Cost of goods sold has a direct impact on the net profit. The $r^2 = 0{,}804$ for the regression analysis between COGS and net profit shows that there is enough strength of the variation captured by the regression model. Cost of goods sold was found to account for 80,4% of the change in net profit. This finding shows that there is a significant positive correlation and that the reduction of cost of goods has a high effect on net profit.

The regression model of $Y = 256{,}190 + 0{,}037X_1 + e$ was deduced which shows the positive skewness of the correlation between COGS and net profit. The model shows that if COGS (X_1) was zero rated, there will be a net profit of 256,190. A unit increase of COGS shows an increase of the dependent variable net profit. Although the researcher set out to analyse the effect of cost of goods reduction on net profit in Shoprite Holdings Ltd South Africa South Africa, the results found in the study counter the literature that argues that cost reduction of cost of goods sold increases net profit. The findings of the study are aligned with the findings of Kesavan, Lambert, Williams and Pendem (2022) who found that there is, however, limited evidence to support the effectiveness of trying to increase revenue and cut costs at the same time since prioritizing both might not yield positive results.

The argument that there is limited evidence supporting the effectiveness of simultaneously pursuing revenue expansion and cost reduction could utilize the findings of this research to alter their view. The model deciphered shows a positive correlation between cost of goods reduction and net profit. However, the significant value shows that an increase of cost of goods sold increases net profit.

4.5.2. Research objective 2: to evaluate the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa

The results show a significant positive correlation between operating cost (OPC) and NET PROFIT, as contemplated by Danso et al. (2019), who found that companies successfully reduce operating costs to gain a competitive advantage and increase revenue. Undoubtedly, a change in operation cost reduction construct has a bearing on net profit. The study found that OPC can account for 88,9% of the change in net profit. For a company to be more profitable, it not only amasses profit through sales and revenue, but the reduction of operational cost becomes one other fundamental aspect to increase profit.

The regression model of $Y = 356{,}593 + 0{,}132X_2 + e$ represents a positive skewness between OPC and NET PROFIT. The model shows that if OPC was zero rated, there will be a net profit of 356,593. A unit increase of OPC shows an increase on the NET PROFIT. This finding does not accord with the literature that the reduction of operation cost increases net profit. Since the coefficient value of operation cost (X_2) is positive, it follows suit that net profit will increase as the value of operation cost is increased. These results are aligned with the p-value of the regression analysis that has been found to be $p = 0{,}549$ which is far greater than set $p = 0.05$. The p-value of 0,549 shows a statistically insignificant relationship between operation cost and net profit.

4.6. Conclusion

The findings indicate that there is a significant positive relationship between COGS and net profit, and between OPC and net profit. This means that changing COGS or OPC construct has a positive influence on net profit. This view is aligned with Haessler (2020) who contends that to increase a company's revenue and net profit a reduction of operational costs and cost of goods sold is pertinent.

The findings on the predictor COGS can account for 80,4% of the change in net profit and the predictor OPC can account for 79% of the change in net profit. This finding indicates that there is a significant positive correlation between COGS and net profit, and between OPC and net profit which means that changing one construct has a positive influence on the other.

Since one of Porter’s Five Forces shows that cost reduction can improve profit, this research has tested this theoretical assertion by examining if cost reduction in Shoprite Holdings Ltd South Africa enhances its profit gains. The model is widely used to analyze the corporate strategy and industry structure of a corporation. Porter's Five Forces is a useful strategic tool that offers a thorough understanding of profit drivers and helps in the early detection of disruptive developments. It can be applied to businesses of any size and in any industry. The findings of this analysis are in alignment with the Porter’s hypothesis theory, which is the foundation of this research since it helps companies to understand the forces or factors, which impact their ability to make profit – which in this research focusses on costs. This supports Bruijl and Gerard (2018) claim that Porter’s hypothesis is important in guiding business decision making, which they understand the forces that limit their profit ability.

CHAPTER 5

RECOMMENDATIONS AND CONCLUSION

5.1. Introduction

This chapter summarizes the findings in relation to the objectives of this research. In this chapter the researcher also discusses the limitations of the study that should be noted when assessing the findings and recommendations. Recommendations to the industry, academia and to society are presented. An overall conclusion of the study is provided to encapsulate what the study achieved.

5.2. Summary of the research

5.2.1. Summary of findings for research objective 1

This section explains how the researcher achieved the research objective which sought to analyse the effect of cost of goods reduction on net profit in Shoprite Holdings Ltd South Africa. Data on cost of goods sold and net profit was collected from the financial statements of Shoprite Holdings Ltd South Africa from 2017 to 2023 since this was the period from which Shoprite Holdings Ltd South Africa was announced.

This data was analysed using the SPPS which provided the researcher with detailed findings on the effect of cost of goods sold and net profit. The results showed that there is a positive correlation between cost of goods sold and net profit. Cost of goods sold was found to account for 80,4% effect on net profit. An unprecedented regression model was derived from the data which showed that when cost of goods sold is increased, net profit also increased. These results were contrary to the literature that sought to investigate that the reduction of cost of goods sold would yield to an increase in net profit (Nur, Riyadi & Hernita, 2023).

Despite the findings obtained from the regression analysis model, companies must manage their cost of goods sold to ensure higher profits. As alluded to in the theoretical framework of the Porter's Five Forces theory, a company's net profit serves as evidence of good performance when measured against competitors. Therefore the cost of goods sold is a vital index of performance in the profit statement because it serves as a deduction from a sales revenue before a derivation of gross profit can be made.

5.2.2. Summary of findings for research objective 2

The study summarises the research objective which aimed to evaluate the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa. Findings for objective 2 could similarly be presented as with objective 1 where data on operating cost and net profit was collected from the financial statements of Shoprite Holdings Ltd South Africa from 2017 to 2023.

This data was analysed using the SPPS which provided the researcher with detailed findings on the effect of operating cost and net profit. Results showed that there is a positive correlation between operating cost and net profit and operating cost was found to account for 79% effect on net profit.

The regression analysis model results showed that if operating costs increased, net profit also increases. These findings counter the literature which suggests that the reduction of operating cost will increase net profit. Whilst there is a positive correlation between operating cost and net profit, the study established that the p value of the regression model is $p = 0,549$ which is far higher than the set $p = 0,05$. This p value suggests there is a statistical insignificance of the effect of operating cost on net profit.

The findings of objective 2 do not confirm the business general rule as stated by Chen, Kumara and Sivakumar (2021), that an growth in business costs decreases potential profit.

5.3. Limitations

This research used purposive sampling that has an inherent limitation which often leads to sampling bias in some instances (Penn, Petrolia & Fannin, 2023), hence the conclusions of the study are limited to Shoprite Holdings Ltd South Africa Ltd. The inferences the study could make about the population are weaker than with probability samples, and the conclusions have been limited to Shoprite Holdings Ltd South Africa Ltd. However, the study considered the potential effects of a researcher's expectations, values and general belief systems which can predispose the researcher to study certain variables and not others.

In addition to the above limitations, this study was limited by the number of financial statements that could not reach a minimum of twenty for a correlational regression study. The study period had to be confined to 2017 and 2023 considering the time when Shoprite Holdings Ltd South Africa was announced. In 2021 Shoprite Holdings Ltd South Africa could not produce a half-yearly financial statement which left the researcher to work with only thirteen financial statements.

However, the researcher considered the research study purpose and expectations in choosing a single case of Shoprite Holdings Ltd South Africa Ltd. Therefore, researchers may build on these limitations in future studies.

5.4. Recommendations

Industry

The industry will learn that cutting back on OPC and COGS can increase net profit. Considering the positive relationship established in the study, businesses in the retail industry must be cautious in reducing cost.

Academia

The limitation of the period considered in the study could be used in academia to examine the shortcomings of limited data in correlational regression. It is expected that future research could address the same study when there has been more data generated that could be sufficient for this method.

Usefulness to the society

The buyer's power in the Porter's Five Forces is a societal instrument that can hamper profitability of any business. This study is useful to the society since it empowers them to understand how the buyers' power can have an impact in the profitability of any retail shop.

5.5. Conclusion

The researcher set the broader aim of the study as being to examine the effect of cost reduction on the profitability of Shoprite Holdings Ltd South Africa Ltd South Africa. Two costs, that is, cost of goods sold and operational costs, were used to analyse and evaluate their effect on Shoprite Holdings Ltd South Africa' net profit.

This research aimed to achieve two key objectives: firstly, to analyse the effect of cost of goods reduction on net profit in Shoprite Holdings Ltd South Africa South Africa, and secondly, to evaluate the effect of operating cost reduction on net profit in Shoprite Holdings Ltd South Africa South Africa. The study was pursued though a positivism paradigm and applied quantitative research methods since it has quantitative variables which are cost of goods sold, operating cost, and net profit.

The study has been premised on how the retail industry maximizes profitability in the midst of increased competition amongst competitors competing for more or less similar buyers. Focus was on cost reduction as a strategic pillar within the volatile business environments. The study was underpinned by the realisation that companies that produce products that are regarded in the market as too costly often lose the market share and face the threat of business closure. Thus, it was imperative to deal with the relationship between the cost of goods sold, the operating cost of producing goods and their impact on net profit.

The study was philosophically grounded on the Porter's hypothesis which highlights competitive forces and the effect on costs. The five forces in Porter's hypothesis affect prices, competitive investment, market share, potential profits, profit margins, and industry size. Essentially, Porter's Five Forces help organizations assess their profitability, which is the cornerstone of the existence of many businesses. This theoretical foundation finds resonance in this study since the main goal of companies is to produce goods that help them to generate income and remain competitive in the market. However, this goal could not be achieved without customers which companies seek to create a reliable customer base and maintain an above-board performance over other competitors operating in the industry. These five forces are often used to measure competitive intensity, industry or market attractiveness, and profitability.

The literature review of the study focussed on the theoretical foundation of the Porter's Five Forces by considering origin, strategic imperative, different application, and relevance in cost reduction. A review of the empirical literature was conducted to deepen the literature review of the effect of cost reduction on net profit with a prime focus on the relationship of cost of goods sold and operational cost effect on net profit respectively.

The study found that there is a positive correlation between cost of goods reduction and net profit, and operational cost and net profit. Recommendations to the retail industry, academia and society were drawn notwithstanding the limitations the findings of the study encountered.

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APPENDIX 1: SHOPRITE HOLDING FINANCIAL DATA

Rm	COGS	OPEX	NET PROFIT
2017 (H)	57678	15353	2920
2017 (A)	107174	28314	5435
2018(H)	58327	16159	1978
2018(A)	110415	30244	5223
2019(H)	61039	16497	2105
2019(A)	115074	32583	4271
2020(H)	63389	16862	2493
2020(A)	118145	31893	3376
2021(A)	126817	34039	4859
2022(H)	69079	18223	2730
2022(A)	138846	37612	5740
2023(H)	81343	21459	3130
2023(A)	163250	44615	5901

Notes:

Rm = Rand in millions

H = Half yearly report (26 weeks)

A = Annual report (52 weeks)

COGS = Cost of Goods Sold

OPEX = Operating Costs

APPENDIX 2: FACULTY PROPOSAL APPROVAL LETTER

UNIVERSITY OF LIMPOPO
Office of the Faculty Research Professor Prof TS Setati **03 October 2023** PRIVATE BAG X1106, SOVENGA 0727
FACULTY OF MANAGEMENT AND LAW

University of Limpopo
Faculty of Management and Law
OFFICE OF THE EXECUTIVE DEAN
Private Bag X1106, Sovenga, 0727, South Africa
Tel:(015) 268 3947, Email: fml.postgradoffice@ul.ac.za

03 October 2023

MTHUNYWA L [redacted]
TURFLOOP GRADUATE SCHOOL OF LEADERSHIP
MASTER OF BUSINESS ADMINISTRATION

Dear L Mthunywa

FACULTY RATIFICATION OF SCHOOL APPROVED PROPOSAL

I have pleasure in informing you that the Faculty of Management and Law has ratified the approval of Masters Research proposal. The research proposal has served at the School Higher Degrees Committee meeting on **14 August 2023** and was approved as follows:

Title: *"The Effect of cost Reduction on profitability in Shoprite Holding LTD South Africa."*

Note the following: The study.

Ethical Clearance	Tick One
Requires no ethical clearance. Proceed with the study	√
Requires ethical clearance (Human) (TREC) (apply online) Proceed with the study only after receipt of ethical clearance certificate	
Requires ethical clearance (Animal) (AREC) Proceed with the study only after receipt of ethical clearance certificate	

Yours faithfully,

Prof TS Setati
Research Professor: Faculty Research Higher Degrees Committee
CC: Supervisor, Prof CC Ngwakwe; Acting Programme Manager, Prof T.J Musandiwa; Director of School, Prof S.K Mokoena.

Finding solutions for Africa

FACULTY APPROVAL LETTER MTHUNYWA