# INFLUENCE OF E-COMMERCE ACTIVITIES ON FINANCIAL PERFORMANCE IN THE RETAIL INDUSTRY: PRE COVID VS POST-COVID

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## ABSTRACT

Electronic commerce has been widely used with the emergence of the internet. The growth of the internet over the years has changed business models on how they conduct their businesses. The influence of e-commerce activities has been widely discussed, together with its impact on the retail industry's financial performance. The study looked at the impact of e-commerce on financial performance.

The overall objective of the study was to investigate the influence of e-commerce activities on financial performance in the retail industry prior to Covid and since Covid. The study analysed the impact of e-commerce activities on financial performance using gross profit margin, net profit margin, return on assets and return on equity.

Secondary data was collected from the retailers' financial statements from 2019/2020 to 2020/2021. The descriptive research design was used because data was collected through financial statements and annual financial reports and the outcomes were reported using frequencies

The ratio analyses showed that Shoprite performed the best and Spar the worst over the period from 2019 to 2021. Pick n Pay and Spar alternated mostly between second and third position, however by looking at the ranking of each ratio, Pick n Pay was showing greater profitability than Spar.

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# CHAPTER ONE
# INTRODUCTION AND BACKGROUND TO THE STUDY

## 1.1 INTRODUCTION

According to Nicholas (2022), the retail industry is a business sector that sells products and services both online and in a physical location. Kiran (2019:176) states that an online retail store is a digital institution that sells a wide range of consumer or business-to-business products via e-commerce transactions, whereas physical retail purchasing is one of the traditional shopping channels in which consumers must visit physical stores in person to do their shopping activities. According to Nicholas (2022), the retail industry is divided into two parts, namely the by-products and geography. The by-products are food and beverages, personal and household care, footwear and accessories, furniture, toys, electronic and household appliances, and other products. The geography refers to North America, Europe, Asia-Pacific, Latin America, and the Middle East and Africa.

According to Roggeveen and Sethuraman (2020:169), the influence of Covid-19 was significant on consumer shopping patterns with analysts forecasting a growing demand for food and related essential products to boost supermarket sales and revenues in the short term. Although panic buying has declined, the food consumption of consumers remains high, and online shopping services have seen a tremendous increase in demand (Alam, 2022:167). Even though Covid-19 has posed greater obstacles and risks to the retail industry, it has allowed businesses to explore new ways of doing business (Mirza & Gupta, 2021:2).

The retail industry has adopted e-commerce as a substitute for physical shopping to implement effective social distance strategies aimed at minimising the spread of Covid-19 (Morales, 2021:52). According to Sandeep and Smita (2018:22), e-commerce is the process of purchasing and selling products over the internet through websites or apps. The activities consumers engage in include participation in online auctions, making payments using payment gateways, purchasing online ticketing, and using internet banking. The retail industry uses an e-commerce platform software app that enables customers to find a specific product, a cart feature that manages customer orders, and an online payment function (Gramling, Orschell & Chernoff, 2021). E-commerce operates 24/7 hours a day, therefore customers buy products whenever it is convenient for them, rather than having to consider factors such as trading hours and traveling to the store (Morales, 2021:53). According to Andonov, Dimitrov and Totev (2021:1558), e-commerce offers new opportunities and investments that enhance the financial performance of the retail industry.

## 1.2 PROBLEM STATEMENT

According to Morales (2021:52), Covid-19 has devastated the world and countries have been placed under economic lockdown. Furthermore, restrictions on leaving the house, organising large events, travelling to markets, and every business in the world have been shut down, individuals are stressed to stay at home. As a result, consumers are unable to purchase products and services at markets, prompting them to turn to internet shopping (Neger & Uddin, 2020:93). Many online retailers have seen significant growth, although this has been partially offset by losses in consumer spending in physical stores and across the retail sector. (Rehman, Kashif & Javed, 2020:326).

The Covid-19 epidemic has driven significant growth in the retail industry's e-commerce sector. E-commerce is seen as a new business strategy for customer satisfaction and profitability since it is associated with activities that improve the efficiency and effectiveness of business operations, resulting in improved financial performance (Yurttadur & Turker, 2017:113). Consumers have adopted e-commerce because product information is readily available making product comparisons easier and home delivery of products during the lockdown (Guthrie, Fosso-Wamba & Arnaud, 2021:2). E-commerce service providers value each customer by providing outstanding service, a variety of payment options, more online functionalities, and expanding product offerings and geographic reach (Shetty & Pai, 2021:10).

E-commerce businesses encounter numerous problems in growing their businesses. Customers may lose money if the website of the e-commerce site is hacked due to a lack of system security, stability, standards, and various communication protocols. (Bajwa, 2022:49). According to Arpana (2020:2172), online users face financial difficulties, because of a variety of concerns such as insecure payment and transaction systems, credit/debit card insecurity, lack of warranties, data security, product standards, password hacking, and technological issues, all of which have an impact on online shopping behaviour.

While many studies have been done on e-commerce, little research has been done on the influence of e-commerce activities on financial performance in the retail industry, especially when comparing the financial performance prior to Covid-19 and since Covid-19.

## 1.3 RESEARCH OBJECTIVES

This section will focus on the primary, secondary, and methodological objectives as well as the research questions.

### 1.3.1 PRIMARY OBJECTIVE

The primary objective of the study is to investigate the influence of e-commerce activities on the financial performance in the retail industry by comparing the financial performance prior to Covid-19 and since Covid-19.

### 1.3.2 SECONDARY STUDY OBJECTIVES

To assist in achieving the primary objective, the secondary objectives of this study are:

SO[1] To identify the e-commerce activities of selected retailers within the retail industry prior to and since Covid 19.

SO[2] To investigate the financial performance of selected retailers within the retail industry prior to and since Covid.

SO[3] To determine whether e-commerce activities assisted in improving financial performance.

### 1.3.4 METHODOLOGICAL OBJECTIVES

The following methodological objectives are formulated to assist in achieving the secondary objectives and ultimately the primary objective of the study.

MO[1] To conduct a literature review on the retail industry.

MO[2] To conduct a theoretical investigation into the e-commerce activities available to retailers and how financial performance can be measured.

MO$^{3}$ To develop an acceptable research design and methodology that address the research problem and achieve the objectives of the study.

MO$^{4}$ To analyse the annual reports of the selected retailers for the financial years 2019/2020 (prior to Covid-19) and 2020/2021 (since Covid-19) in terms of e-commerce activities engaged in and to assess the financial performance of the retailers.

MO$^{5}$ To draw conclusions and give recommendations based on the results of the empirical analysis.

### 1.3.5 RESEARCH QUESTIONS

A number of research questions are formulated that are aligned with the primary and secondary objectives of the study.

RQ$^{1}$ What e-commerce activities are the selected retailers involved in during the financial years 2019/2020 (prior to Covid-19) and 2020/2021(since Covid-19)?

RQ$^{2}$ How did the financial performance of the selected retailers change from 2019/2020 to 2020/2021?

RQ$^{3}$ What e-commerce activities can be adopted by the retailers to assist in improving their financial performance by taking Covid-19 into account?

## 1.4 SIGNIFICANCE OF THE STUDY

This study is essential since e-commerce activities have become a necessity in the retail industry to stay competitive and maintain or improve financial performance during unfavourable economic conditions as experienced during the Covid-19 pandemic. The results will provide the retail industry with an array of e-commerce activities that can be adopted to ensure that the retailers remain financially viable. Therefore, the significance of the study is to determine what e-commerce activities were adopted since the Covid-19 pandemic (downgraded to the epidemic) to ensure that the retailers remain financially viable. The next section will discuss the literature overview of the retail industry, e-commerce, and financial performance.

# CHAPTER TWO

# LITERATURE OVERVIEW OF THE RETAIL INDUSTRY, E-COMMERCE ACTIVITIES, AND FINANCIAL PERFORMANCE

## 2.1 INTRODUCTION

Chapter Two provides an overview of the retail industry, e-commerce activities, and financial performance. According to Kumbhat (2019:20), the retail industry comprises businesses that provide various products and services to meet the demand of its customers. Due to the outbreak of Covid-19 pandemic, retailers have adopted e-commerce activities to remain competitive or sustain financial performance during lockdown restrictions that required people to stay indoors.

The sections that will be included in the chapter include concept clarification, an overview of the retail industry, an overview of e-commerce and measuring financial performance as well as previous research on e-commerce activities and financial performance.

## 2.2 CONCEPT CLARIFICATION

The key concepts used in this study will be clarified in the following section.

### 2.2.1 E-COMMERCE

According to Mekdessi, Makdissi and Jazzar (2021:8), e-commerce is the activity of buying and selling products using electronic means such as mobile apps and the internet where such trading takes place between individual consumers and businesses. Išoraitė and Miniotienė (2018:73) state that e-commerce began as an industry standard known as electronic data interchange (EDI), which was a structured system of sharing data between businesses, primarily to improve purchasing and supply procedures during the 1970s. For this study, e-commerce is the purchase of products and services over the internet using e-commerce activities and platforms (such as mobile, website, and business apps).

### 2.2.2 RETAIL INDUSTRY

According to Nicholas (2022), the retail industry is involved in the sale of products directly to a customer who uses the product from a purchase site such as a brick-and-mortar store, or an online shopping website. Furthermore, attracting customers through product displays and marketing is at the heart of retailing.

### 2.2.3 FINANCIAL PERFORMANCE

Financial performance indicates how successful the business is and is linked to the survival of a business in a competitive and uncertain environment (Srinivasarao, Babu & Reddy, 2020:2251). In addition, because performance is the outcome of all operations and strategies, it is vital to effectively monitor financial performance accurately, which is still a top priority for most businesses. According to Andal, Suganya and Shree (2019:240), financial performance analysis is the process of assessing a business's operation and financial characteristics of its balance sheet, cash flow statement, and financial statements. Verma (2022) states that the purpose of such analysis is to determine a business's management efficiency and performance demonstrated by financial records and reports.

### 2.2.4 COVID-19

According to Steinmetz (2020), the Covid-19 disease is caused by the SARS-cov-2 virus. The Covid-19 virus is a mixture of viruses that cause diseases in humans (Ahmad, Hafeez, Siddqui, Ahmad & Mishra, 2020:116). The Covid-19 virus has a crown-like appearance due to glycoprotein spikes on the envelope (Gennaro, Pizzol, Marotta, Antunes, Racalbuto, Veronese & Smith, 2020:4).

## 2.3 AN OVERVIEW OF THE RETAIL INDUSTRY

The retail industry is critical to a country's economic development since retailers provide a large amount of the country's product and service providers and has a social commitment to the communities in which they operate (Nicholas, 2022). Morales (2021:54) urges that retailers should be held accountable not only for providing customers with quality products but also for contributing to the overall improvement of society. According to Roozen and Katidis (2019:10), customers are constantly looking for products that satisfy their desires and the retail industry plays a critical part in supporting its customers in meeting these desires by offering a wide range of products.

Customers expect goods of not high quality only, but also of a reasonable price that reflects the worth of the goods. Additionally, individual customers have a price range for certain products that they are willing to pay, and retailers must meet these expectations. It is the responsibility of retailers to select qualified suppliers that can supply high-quality products at a reasonable price (Kiran, 2019:167). The retail industry offers economic benefits for the country since this industry helps to address the unemployment crisis by offering job opportunities for low-skilled workers and providing them with a means to survive, especially in developing countries (Kumbhat, 2019:20).

## 2.4 OVERVIEW OF E-COMMERCE

This section will discuss e-commerce activities and south African e-commerce trends.

### 2.4.1 E-COMMERCE ACTIVITIES

A variety of activities form the e-commerce ecosystem. A simple e-commerce process from the customer's perspective often entails the choice of e-commerce business, product selection, ordering, payment, order processing, order despatched to the warehouse, and delivery to the final customer. According to Goga, Paelo and Nyanwena (2019), the choice of an e-commerce business occurs when the customers begin by selecting an e-commerce business based on marketing to target potential customers, engaging them to access the website through internet advertising, emails, and billboards.

When the e-commerce business has been selected as the preferred service provider, the consumer's ordering activities commence. When a customer goes online, the consumer search for the desired products and once found adds the products to a virtual shopping cart. Websites compete on a variety of factors, including the price and quality of products, the range of products provided, as well as other unique factors to online retail. These unique factors include the website interface (for example pictures and website layout) and may be designed in such a way to enhance the user experience by minimising the number of clicks required to access products (Goga, *et al*., 2019).

A customer checks out when the product addition to the virtual shopping cart is completed where after the customer is taken to a payment gateway where the electronic payment occurs. The electronic payment can be managed by the website itself, or by a third party. The different payment options provided to consumers are credit and debit cards, cash payment, and electronic funds transfer (EFT) (Mukherjee & Roy, 2017:2). The preferred payment methods by consumers are the use of credit and debit cards (Payfast, 2022). A credit card is used to make purchases and pay them over time, with cash that can be paid back with interest later, whereas the invoice amount is immediately deducted from the account when a debit card is used, providing a convenient and safe method of payment (Mukherjee & Roy, 2017:3). Furthermore, many businesses in South Africa accept credit cards as payment, including Spar, Shoprite, Woolworths, Truworths, and Pick 'n Pay, which exclusively accepts credit cards as payment in their online systems or current accounts when purchasing or paying for products or services. Anjum and Chai (2020:3) state that cash on delivery is accepted by only a few businesses (except for Takealot). Additionally, there are some cash payments innovations such as Pay@ and sCodes services which provide an online customer with a code that can be taken to a partner grocery kiosk and paid in cash before the item is delivered. An EFT is a digital transfer of funds from one bank account to another that place without the intervention of bank employees. As a result, digital transactions do not require paper paperwork (Ahmed, Aziz & Muneeb, 2019:2).

Order processing is the most important activity in e-commerce and if done incorrectly, it may have a major influence on the business. After payment has been received, the order is then processed and forwarded to the supplier. Suppliers can manage orders for each website where they are listed separately, or they can use a centralised inventory and order management system. They can also subscribe to a channel advisor tool, which gives them a single view of all platforms from which they sell. In the case of a direct seller, the supplier is the same as the website owner, the platform (who either manufactures or purchases the products themselves for resale), or a third-party supplier who lists their product on the websites as a marketplace (Goga, *et al*., 2019). The order is subsequently delivered, either directly by the manufacturer or supplier, or through a centralised warehousing and distribution centre. Distribution centers could be owned by the supplier, the marketplace platform, or a third-party provider (Goga, *et al*., 2019).

The order is subsequently delivered to the final customer by a logistics or courier company. In South Africa, the whole market for parcel delivery is expanding. There has been an increase in highly personalised on-demand delivery models, such as those that use courier apps to allow customers to arrange for a courier to pick up and deliver products by mobile or online (Kneale, 2017). There has also been an increase in the number of collecting alternatives available. Customers can increasingly use Click and Collect methods to purchase products and pick them up from the physical business. According to Thomas (2017), other retailers can use collection points. Furthermore, Pargo, a collection points distribution business, reported a 32% increase in platform use of collection points in 2015. Counter-to-counter solutions, such as those provided by postal services like Postnet and stores like Pep and Pick n Pay, have expanded e-commerce providers' options (Massmart, 2017). Table 2.1 shows delivery platforms from selected food retailers in South Africa.

**Table 2.1: Delivery platforms from selected food retailers**

| Businesses | Delivery platforms |
|---|---|
| Pick n Pay | Pick n Pay ASAP |
| Checkers | Sixty60 |
| Woolworths | Woolie |
| Spar | SPAR2U |

Source: Massmart (2017)

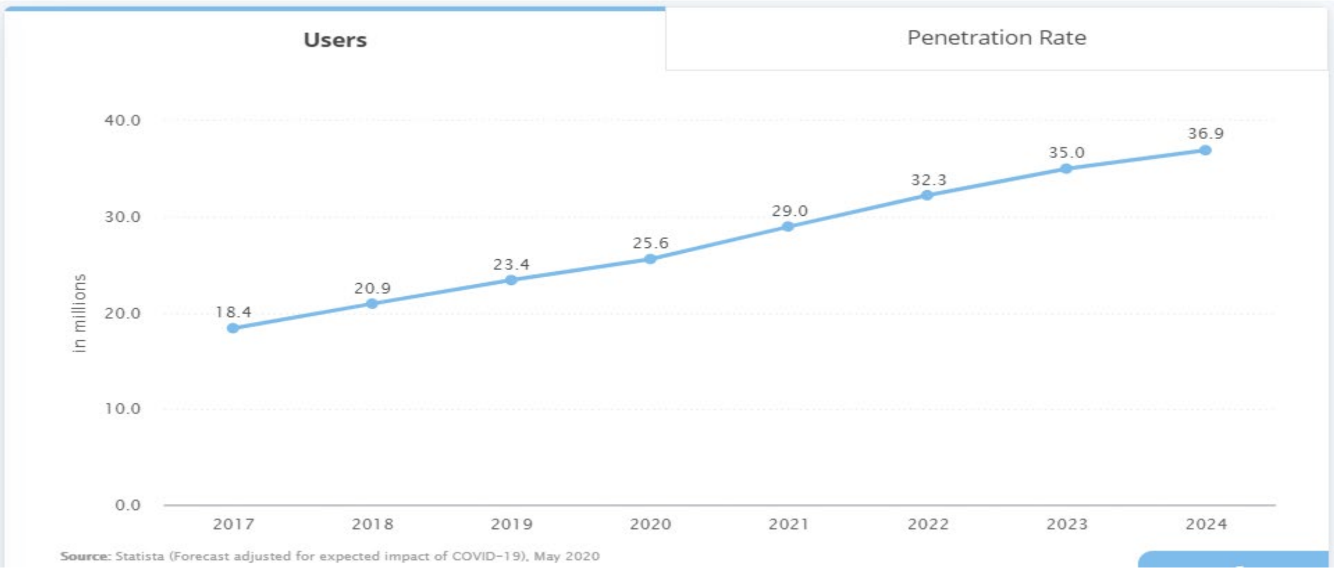
### 2.4.2 THE SOUTH AFRICAN E-COMMERCE TRENDS

In South Africa (SA), e-commerce is rapidly growing more than it has ever before. SA’s average e-commerce expenditure increased by 30% in 2020 compared to 2019 due to the March lockdown and Covid-19 restrictions (International Trade Administration, 2021). Consumers used to be hesitant to buy products they could not see or touch, but that is changing because shopping online is extra convenient as it can be done indoors, and it also reduces the risk of Covid-19 transmissions (Budree, 2017). SA businesses have had to adapt their retail strategies and focus on digital transformation to keep up with the online consumer trend (InterGest, 2022).

Another factor driving e-commerce growth in South Africa is that people are getting more digitally smart, and technology is gradually becoming a part of their daily life (Kibuacha, 2022). Goga, *et al*. (2019) state that e-commerce occurs place in South Africa on both mobile applications and conventional internet devices, but a high proportion of traffic originates on mobile devices with more than 50% of the traffic on certain websites originating on mobile devices. Additionally, e-commerce businesses that provide in-app shopping such as Takealot, are set to grow significantly. Product availability, price, a user-friendly website that makes navigating simple, the ability to make secure payments, and delivery reliability are all elements that encourage South Africans to shop online (Budree, 2017).

Prior Covid-19 pandemic, the SA e-commerce sector was growing steadily, with current market revenue of R3 268 million (InterGest, 2022). Furthermore, the market was increasing at a rate of 20-35% annually, and it was anticipated that even if the crisis had not occurred, sales would have exceeded R60 billion by 2020, growing three times faster than traditional retail sales between 2018 and 2023. Goga, *et al*. (2019) state that with the expected longer road to normality, the importance of e-commerce importance will rise even more, and it will surely continue to play a significant role in people's purchasing patterns after the crisis. More than half of South Africa's 58 million population have access to the internet and mobile sales platforms are especially promising, as mobile devices are used (InterGest, 2022). Figure 2.1 shows the number of e-commerce users from 2017 to 2024 in South Africa.

**Figure 2.1: Expected number of e-commerce users**




Source: InterGest (2022)

As evident from Figure 2.1, South Africa has 36.9 million individuals that will be undertaking online shopping by 2024. According to Smith (2018), e-commerce retailers in South Africa have been in operation for at least two decades, with Kalahari.com being the first to create an online website in 1998. While the diversity and number of websites have increased, many of them receive relatively little traffic (Kibuacha, 2022).

Consolidation has also occurred, leading to the establishment of one large online retailer in the country, Takealot.com, which is managed by the Naspers company (which also owns other brands Superbalist and Spree). The other prominent online retailers are large traditional retailers that offer online sales as a supplement to their existing channels (Goga, *et al*., 2019). Table 2.2 lists some of the largest websites with a substantial South African presence, as well as their main product categories sold.

**Table 2.2: Categories of products sold across selected e-commerce websites actives in South Africa**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Takealot | x | x | X | x | | X | x | x | | x | x | x |
| Loot | x | x | | x | | X | x | x | | x | x | x |
| Pick n Pay | | | X | | | | | | | | | |
| Woolworths | x | x | X | x | | | x | x | | | | |
| Clicks | x | | | x | | | | | | | x | |
| Amazon (shipping to SA | x | x | | x | x | x | x | | | x | x | x |
| Marko | x | x | | | | x | x | | | | | x |
| Wantitall | x | | | | | | | | | | | |
| Spree | | x | | | | | | | | | | |
| Net florist | | | | | | | | | x | | | |
| Incredible connection | | | | | | | | | | | | x |
| Truworths group stores | | x | | | | | | | | | | |
| Foschini group stores | x | x | | x | x | | | | | | | |
| Mr. Price | x | x | | | | x | | | | | | |
| Superbalist | | x | | | | | | | | | | |
| Zando | | x | | | | | | | | | | |

Source: Goga, *et al*. (2019)

According to Table 2.2, the three most popular online shopping categories for South African consumers are fashion, home, and books, computing, and phones. South Africa's online grocery shopping penetration and usage have been extremely limited, with barely 1-2% of 58% with internet access frequently purchasing food and groceries online and only 8 to 10% purchasing in the previous year. However, one-third of consumers had expressed a willingness to shop online. This combined with the current lockdown scenario, suggests that there will be prolonged behavioural changes in in-store and online shopping, with services such as click and collect, automated online subscriptions, and personal shopping all having the potential for growth (The Media Online, 2020).

## 2.5 MEASURING FINANCIAL PERFORMANCE

Financial performance analysis is the process of assessing a business's operation and financial features using the balance sheet, cash flow statement, and financial statements (Srinivasarao, *et al*., 2020:2250). Furthermore, the goal of such analysis is to determine a business's management efficiency and performance as indicated by financial reports. Puspitaningtyas (2019:26) states that the analyst examines a business's investment, profitability, and other indicators that the business is operating in a rational and normal manner, ensuring appropriate returns to shareholders to keep the business's market value at a minimum. According to Fatihudin and Mochklas (2018:554), financial performance refers to a business's financial position over a certain period, including cash collection and utilisation as measured by various indicators such as profitability ratios, and liquidity ratios, asset management ratios, debt management ratios and market value ratios.

According to Budiharjo (2019:585), profitability is a measure that demonstrates a business's ability to make money and attract the attention of investors. Return on investment (ROI), return on assets (ROA), return on equity (ROE), gross profit margin (GPM), and operating margin (OM) are all profitability financial ratios used in analysing business performance. According to Curry and Birken (2021), ROI is a performance measure that is used to evaluate the profitability of an investment. In addition, the ratio indicates the extent a specific business generates profit from the use of capital and the extent to which the amount invested in a specific project returns as a profit or loss. A high ROI indicates that the advantages of the investment outweigh the cost (Moro Visconti, 2018:2). The most common ROI ratios are ROA and ROE. ROA is a ratio that shows the business's financial performance in generating income from assets. According to Budiharjo (2019:586), the ROA ratio represents the percentage relationship between profit before interest and taxes and total assets. Furthermore, ROA reflects how profitable the business's total assets are and do not consider the ways and costs of financing assets. The higher a business's ROA value, the better it is capacity to manage its assets (Hendrani & Septyanto, 2021). According to Chandra (2019:39), ROE refers to the profit earned by a retailer for its shareholder using the funds provided by the shareholders as well as management's success or failure in maximising shareholders' returns based on their investment in the retailer. Additionally, while ROE ranks that the top of the ratio pyramid, it does not inform owners if the business is increasing or decreasing shareholder capital.

The gross profit margin is the amount of money a business makes after deducting the costs of producing its goods and services (Mahdi & Khaddafi, 2020:154). A high gross profit margin ratio shows that the important activities are more efficient, resulting in operating expenses, fixed costs, dividends, and depreciation being covered while making net earnings for the business. A low-profit margin, on the other hand, shows an excessive cost of goods sold, which can be attributed to poor purchasing policies, low selling prices, low sales, severe market competition, or ineffective sales promotion techniques (Swandewi & Purnawati, 2021:652).

Mahdi and Khaddafi (2020:155) define the operating margin ratio as the relationship between a business 'operating margin and net sales, as well as the amount of margin that remains after deducting all direct and indirect business expenses. The operating margin ratio assesses the strength of a business's alliance, a high ratio implies unfavourable conditions because it signifies that every rand is absorbed in costs, leaving only a few rands for profit. The Operating margin is also a measure of managerial adaptability and competence (Tien, Anh & Ngoc, 2020:694)

Lalithchandra and Rajendhiran (2021:1113) state that the liquidity ratio assists in determining a business's ability to pay a short-term debt in the due course of time. Furthermore, the simple and easiest way in measuring liquidity can be the current ratio, quick ratio, and cash ratio. The three ratios differ based on what is used in the equation's numerator; an acceptable ratio will vary among the three. It is reasonable since the numerator of the cash ratio only includes cash and marketable securities, whereas the numerator of the current ratio includes all current assets. As a result, an acceptable current ratio is greater than an acceptable quick ratio (Corporate Finance Institute, 2022).

The asset management ratio compares a business's assets to its income and shows how efficiently it uses its resources to generate revenue (CFA Journal, 2022). According to Kovalchuk and Verhun (2020:62), asset management is an essential element that encompasses a wide variety of activities and is divided into two categories: current and non-current asset management. Current asset management is connected to a business's current operations, so its effectiveness will be determined in the short term, and it includes the balance of finished goods, raw material inventories, accounts receivable, cash management, and other current assets management (Purba & Bimantara, 2020). Non-current asset management is connected to the business's current financial activities, but the decisions are made in a long term (Kovalchuk & Verhun, 2020:62).

According to Sihombing and Hutagalung (2020:530), the debt ratio is a financial measure of how much a business is financed by debt. If the debt ratio is too high, the business will be in danger and it will fall into the category of excessive leverage, in which the business is trapped in a high level of debt, and it is difficult to release the debt burden. According to Nalurita (2017:85), a market ratio is another approach to using financial statements that are frequently used by anyone considering investing in a business. Furthermore, the market price for common share equity is a unique and relevant statistic since it reflects the aggregate expectations of all market participants who follow that share. The price earning (P/E) ratio is a measure of market confidence in a business's shares, analysts can observe price per share and past earnings per share, and the traditional method of estimating the ratio is practicable (Kennon, 2021). According to Kamar (2017:65), it is widely accepted that the greater the P/E ratio, the higher the expectations for the business's future profitability. Although the P/E ratio is efficient because analysts do not have to produce a valuation or an earnings estimate, it results in a valuation mismatch because it divides historical earnings into share prices that reflect the current value of future earnings (Kennon, 2021).

The market ratio is calculated by dividing the business's current market value of common equity by its most recent balance sheet's book value of common shareholder's equity. An ordinary share's book value is the value that each ordinary share would have if the business's assets and liabilities were sold or settled at the reported balance sheet figures. Reports and newspapers might provide the market value per share (Kariyawasam, 2019:1900).

To evaluate the performance of the selected retailers, this study will limit financial performance and consider specific profitability ratios such as gross profit margin, net profit margin, ROA, and ROE.

## 2.6 PREVIOUS RESEARCH ON E-COMMERCE ACTIVITIES AND FINANCIAL PERFORMANCE

Wangari (2013) explored the effects of e-commerce on the financial performance of airlines in Kenya. The overall objective of the study was to investigate the impact of e-commerce on financial performance using financial performance ratios such as ROA, ROE, and net profit. The study analysed the impact of e-commerce by using ROA and net income as the dependent variables while the web passenger numbers, and agency commission as the independent variables. The output from data analysis showed that there was a weak positive impact of the independent variables on the dependent variables, and this may be because currently, the percentage of online bookings concerning the total number of passengers is low for it to have a significant impact.

The study recommended that other measures of e-commerce can be analysed in further studies. These may be non-financial benefits that also affect the performance of the airline and other yardsticks that can be used to measure performance

Goga, *et al*. (2019) did a study that focused on providing an overview of online retailing in South Africa. The study highlighted the key concerns and outlined the competitive landscape in e-commerce in South Africa, detailing the different e-commerce models that have emerged as well as different components of the value chain such as payment systems and logistics. In South Africa, there is a range of models of e-commerce used. These tend to be differentiated based on factors including the technical platform used, delivery model, payment processing methods, marketing, and customer service.

Internationally concerns have been raised over the size, scope and increasing dominance of large platforms, particularly as they have also in many instances acquired smaller competitors.

## 2.7 SUMMARY

The chapter provided a general overview of how e-commerce activities in the retail industry affect financial performance. Sections on concept clarification for topics including e-commerce, the retail industry, financial performance, and covid- 19 were included in this chapter. An overview of e-commerce, financial performance measurements and previous research that has been conducted were addressed. The next section will discuss the research design.

## CHAPTER THREE
## RESEARCH DESIGN

### 3.1 NTRODUCTION

The research design plans the methods and strategies that will be used to answer the study's research questions (Abutabenjeh & Jaradat, 2018:245). Additionally, the research design gives the reader a clear understanding of how the study's data was collected and analysed. The paradigm philosophies must address the study. These four types of philosophies are positivism, pragmatistic, interpretivism, and participatory. The positivism paradigm obtains knowledge through experiments and observations, whereas a pragmatistic paradigm uses a combination of methodologies to answer the research problem and the best fit solution is used (Rahi, 2017). The interpretivism paradigm explores the real understanding of the universe and the social experiences under investigation (Alharahsheh & Pius, 2020:54). A participatory paradigm, as opposed to the positivistic paradigm, considers both objective and subjective methods and can effectively address political and social issues (Apuke, 2017:43). The study will use a positivism paradigm as this study will use empirical methods such as financial statements analysis and data collection to address the research problem.

A study can be conducted in one of two ways: qualitative and quantitative methods. According to Apuke (2017:41), the quantitative research method focuses on the collection and analysis of numerical data to achieve results. Furthermore, quantitative research used various methods such as descriptive research, survey research, experimental research, causal-comparative research, and correlational research. Qualitative research is a type of observational research that is based on people's actual experiences and focuses on the why Rather than the what of social events. (Queirós, Faria & Almeida, 2017:370). Since this study will compare and analyse numerical data, the research approach will be quantitative.

Exploratory, explanatory, or descriptive research designs are all possible. The exploratory study is one in which little previous research on the research problem has been conducted (Atmowardoyo, 2018:198). Furthermore, while making investment decisions, this style of research is more flexible and often results in informal studies.

Explanatory research design focus on explaining specific variables and their relationships in the study (Edmonds & Kennedy, 2017:176). According to Rahman (2017), a descriptive research design is a study in which the researcher observes and describes the behaviour of a certain variable without influencing it. This study will use a descriptive research design because data will be collected through financial statements and annual financial reports and the outcomes will be reported using frequencies.

### 3.2 RESEARCH POPULATION AND SAMPLING

A population is a total group of people being investigated to conclude from, but a sample is a specific group of people taken from a larger population to collect data and study further (Taherdoost, 2016:19). For this study, the population is all listed businesses on the JSE within the consumer staples-personal care, drug, and grocery stores – Food retailers, and Wholesalers sector (Profile, 2022). The sample frame is the businesses listed in this sector, namely Bidcorp, Choppies, Pick n Pay, Shoprite, and Spar.

There are two types of sampling techniques: probability and non-probability sampling. Probability sampling is when participants are chosen at random from a larger population using a process based on probability theory (Rahi, 2017:3). Furthermore, the types of probability sampling techniques include simple random sampling, systematic random sampling, stratified random sampling, and cluster/ multistage sampling.

According to Etikan (2017:210), non-probability sampling is the non-random selection of a sample from a large population based on variables such as convenience. Additionally, non-probability sampling techniques also include convenience sampling, purposive sampling, judgment sampling, and quota sampling. The study will use a non-probability sampling approach and more specifically purposive sampling as companies are selected for a specific purpose, that is retailers frequently used by consumers. Pick ‘n Pay, Shoprite and Spar are the businesses under investigation. The inclusion of these businesses is justified by the fact that they are the most convenient shopping stores in SA, as they make it easier for their customers to access essential products at their convenience via the establishment of e-commerce platforms; hence the three samples.

## 3.3 DATA COLLECTION

Researchers can collect secondary data and primary data to address a study's research objective. Data collection is an important part of the research process since it ensures the study's validity and reliability (Edmonds & Kennedy, 2017:240). Data collection methods include face-to-face interviews, observation, surveys, interviews, questionnaires, oral history, and focus groups (Saunders, Lewis & Thornhill, 2016:388). The study will collect data from the annual reports and websites of the selected retailers for the financial years 2019/2020 and 2020/2021. These reports will include audited annual reports, any publicly available information from the company websites and other websites, and any useful financial reports that can give more detailed information.

## 3.4 DESIGN OF THE MEASURING INSTRUMENT

An instrument must be chosen to assist in the gathering of relevant data to collect data efficiently. According to Kabir (2018:171), a structured instrument is responsible for effective data analysis and reporting of the results. There are various instruments for the collection of data for research purposes. Data will be collected from the website and the annual reports regarding the e-commerce activities engaged by each of the selected retailers for both financial years. The e-commerce activities that will be used are those that were identified in the literature review; therefore a "checklist" will be created. The checklist is included as Annexure A.

The relevant data from the annual financial reports will be collected to ensure the gross profit margin, net profit margin ROA and ROE. To achieve the research objectives of the study, the use of annual reports and websites will be used for data collection.

## 3.5 DATA ANALYSIS

After gathering the required data, it will be analysed using appropriate methods. Data analysis serves as the foundation for data interpretation, which leads to the creation of new knowledge (Grant, 2022). Furthermore, an analytical strategy is required to produce empirical findings.

A critical analysis of the data will be performed when it has been collected and organised. Although the study is quantitative, content analysis will be used to analyse the e-commerce activities of the companies as found in the annual financial reports and on the websites. Therefore, coding the data (e-commerce activities) is an effective means to prepare, organise and transform these activities into useful sources for research. In addition, the data will be interpreted before conclusions are reached.

Microsoft Excel will be used to store data. Excel will be used to compute the various ratios for the different financial years of the selected retailers. The essential analysis of ratios, such as ROA, ROE, and gross profit margin, will be used to assess the profitability and financial performance of the selected retailers. These ratios, as indicated in Chapter Two, are good indicators of financial performance.

The reliability and validity of the chosen research method for the study indicate its suitability. The systematic process of establishing that an instrument is valid to the extent that the instrument's scores measure the variable intended to be measured. It is important to ensure that the instrument’s results are valid, as this will have a direct impact on the research’s reliability. All information included in the analysis will be obtained from a credible primary source (annual financial reports) that is dependable. The following section discusses the ethical consideration of this study.

## 3.6 ETHICAL CONSIDERATIONS

Ethics refer to reasonable standards of rights and wrongs that specify what humans should do, usually in terms of rights, obligations, and societal advantages. Ethics can also refer to the study and development of an individual's ethical standards; it can also refer to a person’s ongoing attempt to understand his or her own moral beliefs and moral conduct (Velasquez, Andre, Shanks & Meyer, 2021).

The study will be conducted in an ethical manner that is following Nelson Mandela university’s policies. The required ethical forms will be completed and submitted to ensure that the study complies with the university's ethical standards.

## 3.7 SUMMARY

Chapter three described the paradigm philosophies and the research design which were used on the study. A paradigm philosophy was discussed and formulated. A positive research paradigm and quantitative method were found suitable for this study The chapter identify how population and sampling was extracted. Thereafter the data collection method, the design of the measuring instrument and data analysis for this study was explained. Finally, ethical considerations of the study were stated. The next chapter, Chapter Four, will discuss the empirical results of the study.

# CHAPTER FOUR
# EMPIRICAL RESULTS

## 4.1 INTRODUCTION

This chapter will discuss the data analysis, the empirical findings as well as the interpretations of these findings. The data from the integrated reports of Pick n Pay, Shoprite, and Spar includes the gross profit margin, net profit margin, ROA, and ROE, from 2019/2020 to 2020/2021. The data from the financial statements of Pick n Pay, Shoprite, and Spar will then be used to analyse the financial performance of the groups as the e-commerce activities grew to become a more integral part of the business by focusing on gross profit margin, net profit margin, ROA, and ROE.

## 4.2 PICK N PAY, SHOPRITE, AND SPAR BUSINESS PROFILE

This section will discuss the business profile of each food retailer used for data collection.

### 4.2.1 PICK N PAY

Pick n Pay run an online store alongside their bricks and mortar retail stores. This includes both home delivery and "click and collect" options which allow customers to shop online and fetch the order from a store. The division is winning customers by offering online convenience, good availability, and on-time delivery. The online offer in the Western Cape and Gauteng is supported by two dedicated online picking warehouses (Pick n Pay, 2018).

Online grocery sales have significantly accelerated because of the Covid-19 outbreak, with many customers placing significant reliance on our online sales and delivery systems to avoid leaving their homes to do grocery shopping. The Pick n Pay team has rapidly increased capacity and reach through a liquor delivery partnership with "Bottles", which has been re-engineered during the nationwide lockdown to deliver same-day grocery essentials to customers. It has rolled out its "Click and Collect" service across many Pick n Pay stores, and many franchise stores now encourage customers to email or WhatsApp their orders directly to the store, for collection or delivery (Pick n Pay, 2020).

### 4.2.2 SHOPRITE

The Shoprite Group is the largest South African retailer by market capitalisation, sales, profit, and the number of employees and customers. Shoprite Group launched a digital innovation hub, ShopriteX, which aims to grow and monetise its ecosystem of value for consumers by creating a seamless shopping experience. Shopping behaviour changed because of the Covid-19 pandemic. Online shopping grew exponentially as consumers have become omnichannel shoppers, shopping both online and in-store (Shoprite,2020).

### 4.2.3 SPAR

Spar is a warehousing and distribution business that provides fresh produce and high-quality merchandise to a network of independent retailers who trade under its brands. The pandemic accelerated the move towards a more digital world, and this includes online shopping. To avoid large crowds and minimise shopping time, consumers chose convenience over supermarkets or mall-based stores. Some consumers also shifted towards online shopping to avoid stores altogether. In response to this trend, Spar was quick to adapt and offer simple solutions such as offering delivery and/or click-and-collect options (Spar, 2020).

## 4.3 FINANCIAL ANALYSIS OF THREE SELECTED RETAILERS

The financial statements presented in the annual integrated reports of the retailers will be used for the financial analysis. The ratios of gross profit margin, net profit margin, ROA and ROE will be discussed. The financial analysis will serve as an indication of how profitable the retailers have been before Covid-19 (2019/2020) and since Covid-19 (2020/2021).

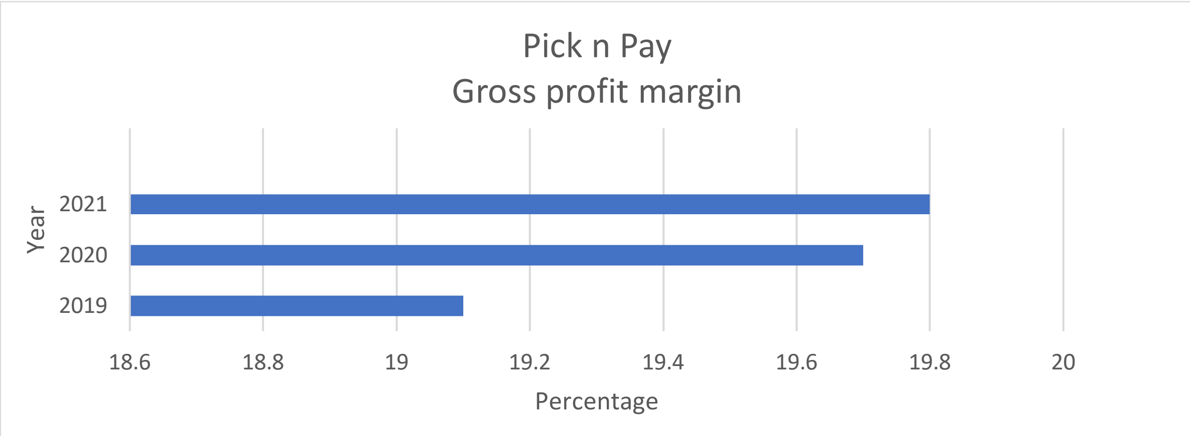
### 4.3.1 GROSS PROFIT MARGIN

Gross profit margin is the amount of money a business makes after deducting the costs of producing its goods and services (Mahdi & Khaddafi, 2020:154).

Pick n Pay's gross profit margin increased from 19.1% in 2019 to 19.7% in 2020, due to strong performance which now takes 45% of its volume through its centralised distribution network, driving greater levels of supply chain productivity and efficiency. It was able to increase its gross profit margin without increasing trading expenses.

Pick n Pay increased the gross profit margin from 19.7% in 2020 to 19.8% in 2021, eliminating the negative effects of Covid-19 trading restrictions on its higher-margin categories through cost savings, efficiency improvements, and enhanced centralisation throughout its supply chain. Figure 4.1 summarises the gross profit margin of Pick n Pay for the years 2019 to 2021.

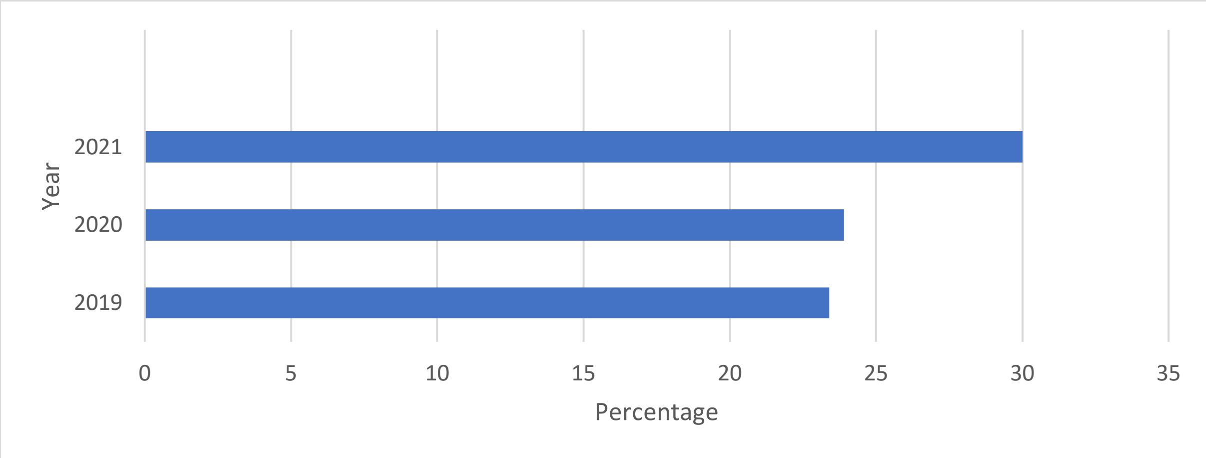
**Figure 4.1: Pick n Pay gross profit margin**




Source: Researcher's own construction

Shoprite's gross profit margin increased from 23.4% in 2019 to 23.9% in 2020 due to an increase of 8.9% in gross profit and a 6.4% increase in sales. In 2021 Shoprite's gross profit margin increased by 55 basis points to 30% because of a gross profit increase of 10.6%. The gross profit margin improvement was due to an increased contribution to goods sold from local (versus imported) products (Shoprite, 2021). Figure 4.2 summarises Shoprite's financial performance, with a focus on gross profit margin.

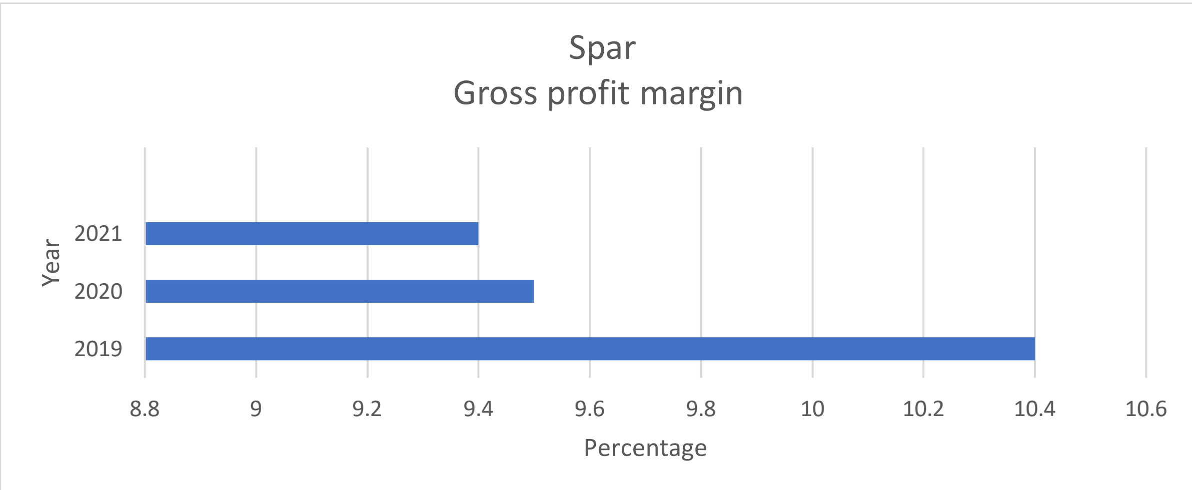
**Figure 4.2: Shoprite gross profit margin**




Source: Researcher's own construction

Spar experienced a highly prosperous financial year in 2019, with a gross profit margin of 10.4%. With the global pandemic and its impact on numerous businesses, the gross profit decreased to 9.5% in 2020. Due to the dilutionary effects of building materials trading at lower margins throughout the time given the high performance of the building business, its gross profit margin continued to decline to 9.4% in 2021. (Spar, 2021). Figure 4.3 shows the financial performance of Spar, with a focus on gross profit margin.

**Figure 4.3: Spar gross profit margin**



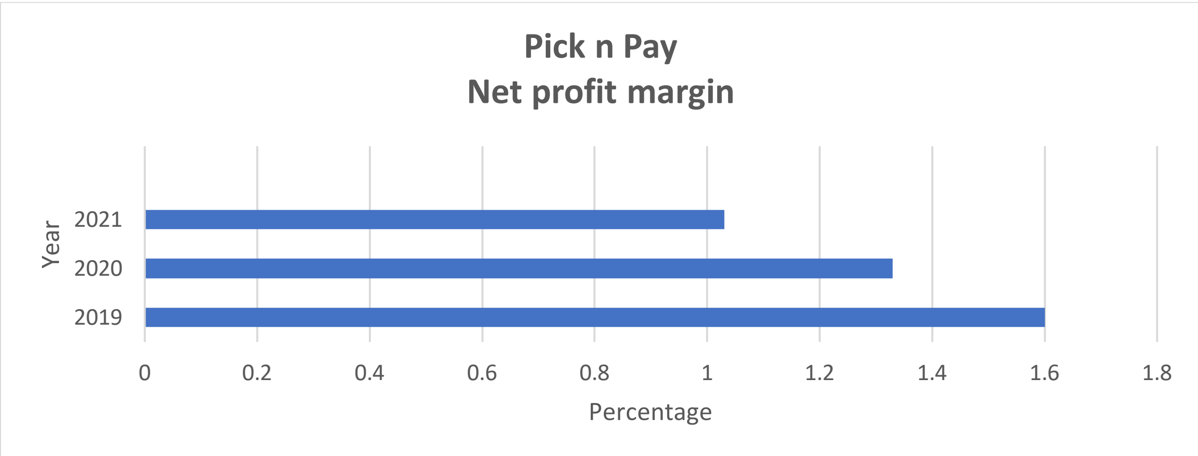

Source: Researcher's own construction

### 4.3.2 NET PROFIT MARGIN

The net profit margin ratio demonstrates the ability of a business to generate net profits after tax deduction and its comparison between net income and sales (Mahdi & Khaddafi, 2020:155).

Pick n Pay’s net profit margin decreased from 1.60% in 2019 to 1.33% in 2020 due to the increase in store operating expenses which were mostly attributable to the effects of load shedding on the industry, including the need to use diesel generators and spend more money maintaining and repairing machinery harmed by power surges and disruptions. The net profit margin declined to 1.03% in 2021 because of increased merchandising and administrative expenditures as well as continued control over advertising, professional fees, and other administrative costs. Figure 4.4 shows the financial performance of Pick n Pay, with a focus on the net profit margin.

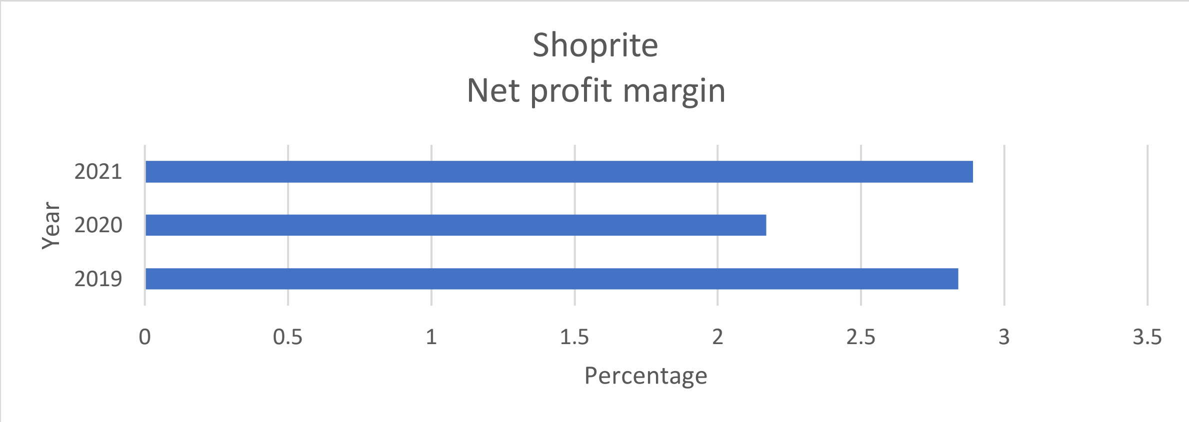
**Figure 4.4: Pick n Pay net profit margin**




Source: Researcher’s own construction

Shoprite's net profit margin decreased from 2.84% in 2019 to 2.17% in 2020 because of inadequate pricing and promotions made possible by the Xtra savings rewards programme. The net profit margin increased to 2.89% in 2021, due to having an effective supply chain that keeps costs under control. Shoprite considered where to source goods from, how to distribute them, and how to control waste throughout the system. Figure 4.5 summarises Shoprite's financial performance, with a focus on net profit margin.

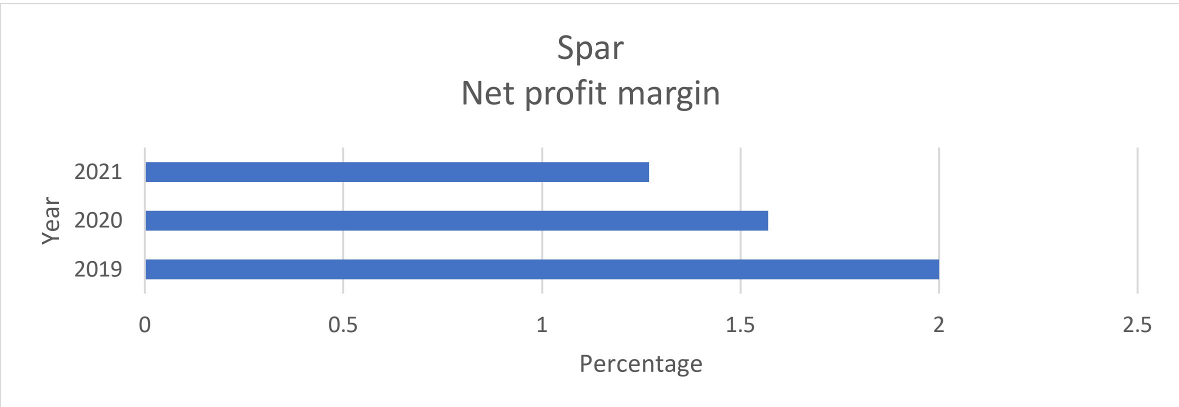
**Figure 4.5: Shoprite net profit margin**




Source: Researcher's own construction

Due to its ineffective cost structure and low price, Spar's net profit margin decreased from 2% in 2019 to 1.57% in 2020. Net profit margin decreased to 1.27% in 2021 because of a 9.0% increase in energy and water costs, which is far less than the 15.1% tariff increase imposed by the South African power regulator. Figure 4.6 shows the financial performance of Spar, with a focus on the net profit margin.

**Figure 4.6: Spar net profit margin**



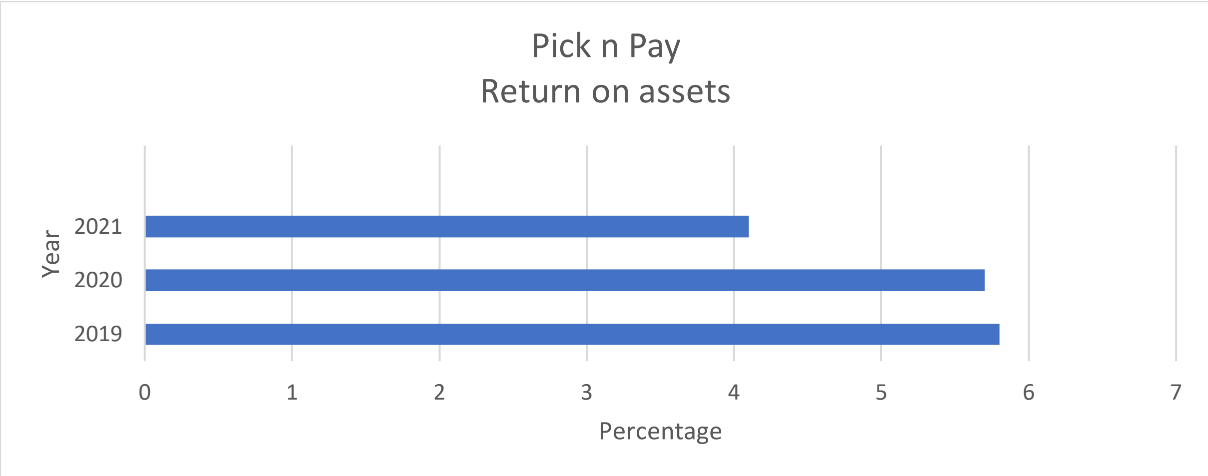

Source: Researcher's own construction

### 4.3.3 RETURN ON ASSETS

The ROA ratio indicates how a business is using assets to generate profits (Oktaria Arifa, 2022:174).

Pick n Pay's ROA decreased from 5.8 % in 2019 to 5.7% in 2020 due to inefficient use of assets to generate income. ROA decreased from 5.7% to 4.1% in 2021 due to a 10.3% increase in inventory because of 80 net new business owned stores and increased centralisation in Boxer. Figure 4.7 shows the financial performance of Pick n Pay, with a focus on return on assets.

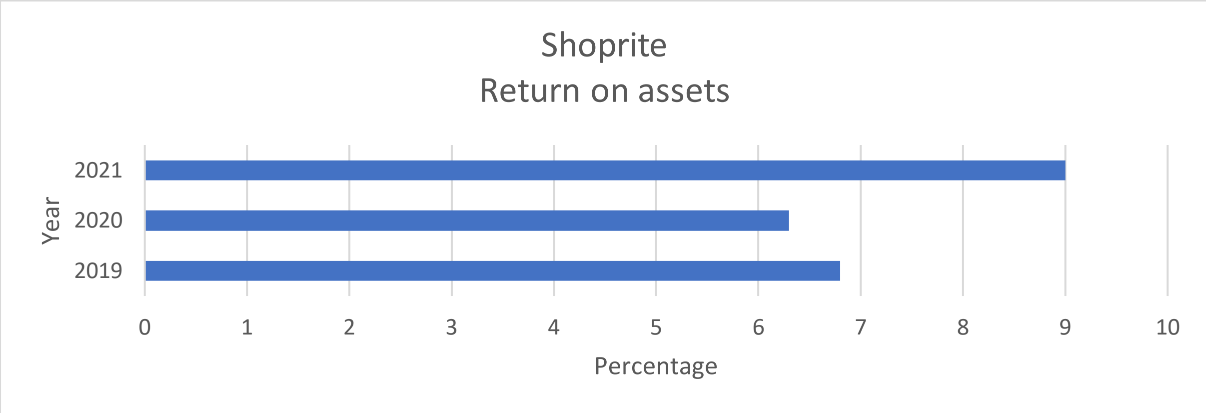
**Figure 4 7: Pick n Pay return on assets**




Source: Researcher's own construction.

Shoprite's return ROA dropped from 6.8% in 2019 to 6.3% in 2020 because of mismanaged e-commerce investments and customers who were having trouble adjusting to online purchasing. Shoprite altered the number of dividends given to shareholders, returned cash to owners, issued additional shares, and sold assets to decrease debt, all of which helped to increase ROA to 9% in 2021 because of the capital structure being maintained. Figure 4.8 is a graphical presentation of Shoprite's return on assets.

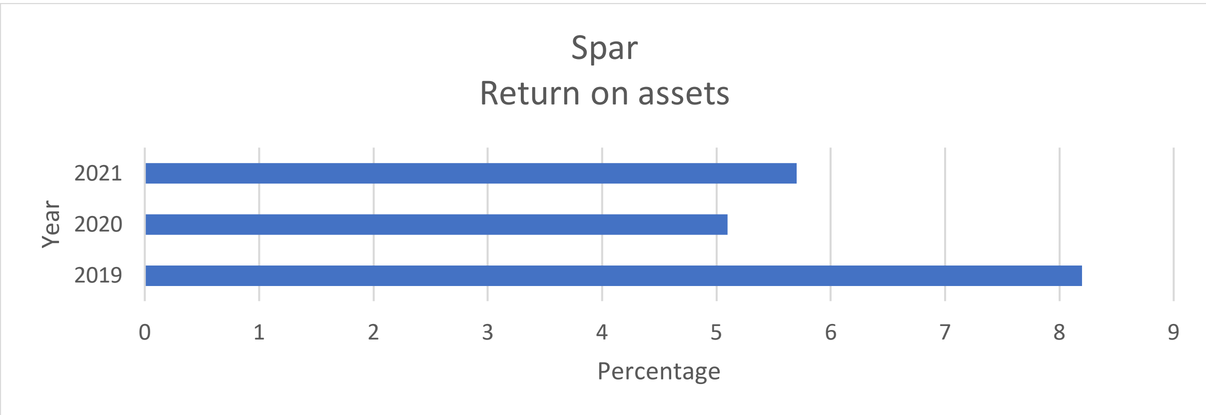
**Figure 4.8: Shoprite return on assets**




Source: Researcher’s own construction

Spar's ROA decreased from 8.2% in 2019 to 5.1 % in 2020 because of poor strategic management. However, in 2021 the ROA increased to 5.7%, which indicates a major improvement in the financial performance due to the assets being used more effectively and efficiently to generate profits. Figure 4.9 shows the financial performance of Spar, with a focus on return on assets.

**Figure 4.9: Spar return on assets**



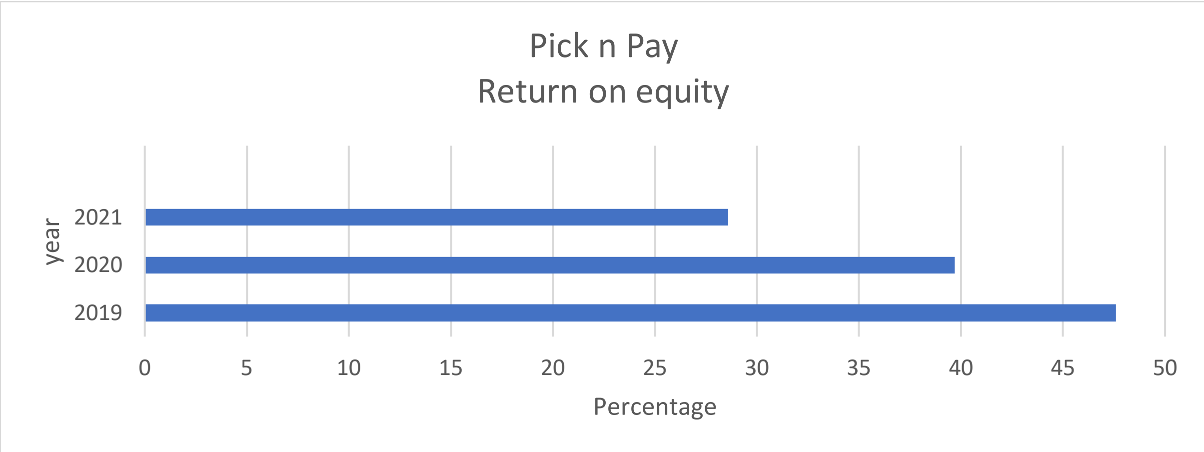

Source: Researcher’s own construction

### 4.3.4 RETURN ON EQUITY

The return on equity (ROE) indicator is employed to indicate how the business successfully uses the owner’s (shareholders) investment to create profits.

Pick n Pay's ROE decreased from 47.6% in 2019 to 39.7% in 2020 due to poor management when it comes to utilising investment financing to grow the business. In 2021 the ROE decreased to 28.6% as the Pick n Pay source of funding was more from liability than equity. Figure 4.10 shows Pick n Pay financial performance, with a focus on return on equity.

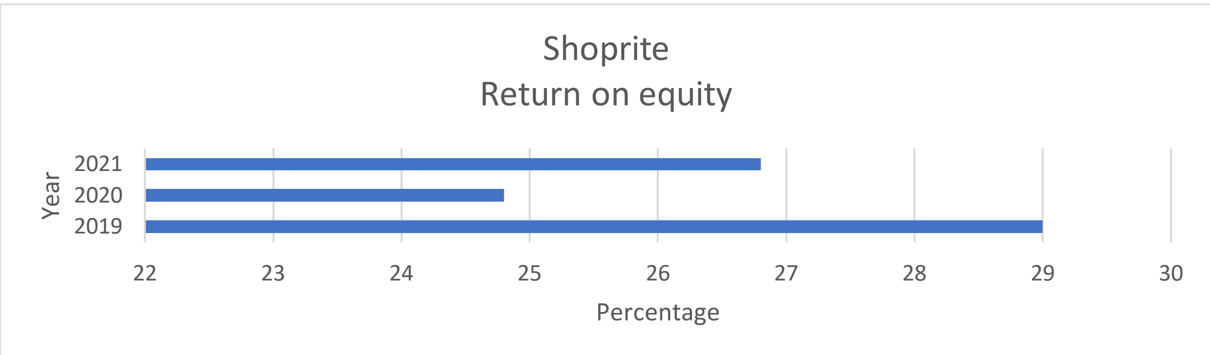
**Figure 4.10: Pick n Pay return on equity**




Source: Researcher's own construction

Shoprite's financial performance was affected by internal economic and external market conditions and, therefore, the value of ROE Shoprite decreased from 29% in 2019 to 24.8% in 2020. In 2021 ROE increased to 26.8%, indicating that it was able to successfully use the resources provided by its equity investors and its accumulated profits in generating income. Figure 4.11 highlights the financial performance of Shoprite, with a focus on return on equity.

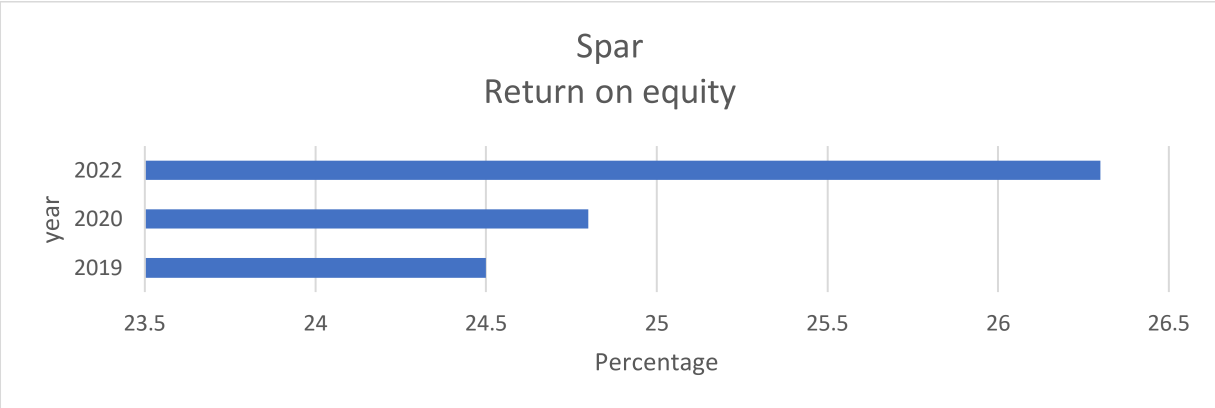
**Figure 4.11: Shoprite return on equity**




Source: Researcher's own construction

In 2019 Spar's ROE from 24.5% to 24.8% in 2020, the improvement in the ROE is a signal that management is working well with the investors' capital. In 2021 ROE increased by 26.3 % due selling of shares and reducing expenses. Figure 4.12 summarises the financial performance of Spar, with the focus on return on equity

**Figure 4.12: Spar return on equity**




Source: Researcher's own construction

## 4.4 SUMMARY

A summary of the ranking of the three businesses in relation to the four profitability measures over the three years from 2019 to 2021 is shown in Table 4.1.

**Table 4.1: Ranking of each listed food retail industry from 2019 to 2021**

| | Gross profit margin | Net profit margin | Return on Assets | Return on Equity |
|---|---|---|---|---|
| 1 | Shoprite | Shoprite | Shoprite | Pick n Pay |
| 2 | Pick n Pay | Spar | Spar | Shoprite |
| 3 | Spar | Pick n pay | Pick n Pay | Spar |

Source: Researcher's own construction based on data from Pick n Pay, 2020, 2021), Shoprite (2019, 2020, 2021) and Spar (2019, 2020, 2021)

From the analysis Shoprite has performed the best over the period 2019 to 2021. Pick n Pay and Spar are mostly between second and third position, however by looking at the ranking of each ration, it appears as though Pick n Pay is showing greater profitability than Spar.

# CHAPTER FIVE
# SUMMARY, RECOMMENDATIONS, AND CONCLUSION

## 5.1 INTRODUCTION

Chapter five is the final chapter of the present study and provides a brief overview of the entire study with particular emphasis being placed on giving a brief overview of the research conducted, the main empirical results, the recommendations, limitations, and suggestions for further research.

The emergence of the internet over the years has changed business models on how they conduct their businesses, with businesses conducting their businesses online. The study looked at the influence of e-commerce on financial performance. The main objective of the study was to investigate the influence of e-commerce activities on the financial performance in the retail industry by comparing the financial performance prior to Covid-19 (2019/2020) and since Covid-19 (2020/2021).

## 5.2 MAIN RESULTS FROM EMPIRICAL STUDY

To determine whether the three retailers were profitable since e-commerce activities were adopted prior to Covid and since Covid, the gross profit margin, net profit margin, ROA and ROE financial indicators were used.

In 2019 Pick n Pay's gross profit margin was 19.1%, Shoprite's was 23.4%, and Spar's was 10.4%. Shoprite had the highest gross profit margin because the company was able to manage its margins more effectively and have more inventory on hand throughout the 2017 and 2018 financial years, which helped it perform well in 2019. Spar had the lowest gross profit margin due to an increase in net operating expenses such as warehousing and distribution expenses, marketing and selling expenses, and administration and information technology expenses

The gross profit margin for Pick n Pay, Shoprite, and Spar in 2020 were 19.7%, 23.9%, and 9.5%, respectively. Shoprite had the highest gross margin profit in 2020 due to an increase of 8.9% in gross profit and a 6.4% increase in sales. Spar had the lowest gross profit margin due to building materials trading at lower margins being dilutionary during the period, given the robust performance of the build its business.

In 2021 Pick n Pay's gross profit margin was 19.8%, Shoprite was 30%, and Spar was 9.4%. Shoprite achieved the highest gross profit margin due to an increased contribution to goods sold from local (versus imported) products. Spar has the lowest gross margin in 2021 because building materials sold at lower margins during the time.

In 2019 Pick n Pay’s net profit margin was 1.60%, Shoprite was 2.84% and Spar was 2%. Shoprite had the highest net profit margin because it raised product prices to increase sales revenue. Pick n Pay had the lowest net profit margin due to the increase in store operating expenses which were mostly attributable to the effects of load shedding on the industry, including the need to use diesel generators and spend more money maintaining and repairing machinery harmed by power surges and disruptions.

In 2020 Pick n Pay’s net profit margin was 1.33%, Shoprite was 2.17%, and Spar was 1.57%. In comparison to its rivals, had more effective pricing and promotions optimisation facilitated by Xtra Savings Rewards Programme. The lowest net profit margin was at Pick n Pay because of rising merchandising and administrative expenditures as well as continued control over advertising, professional fees, and other administrative costs.

In 2021 Pick n Pay’s net profit margin was 1.03%, Shoprite was, and 2.89% and Spar was 1.27%. Due to an increase in other operating income of 13.6%, Shoprite had the best NPM. Pick n pay had the lowest net profit margin due to its inefficient cost structure and weak pricing methods, Spar had the lowest net profit margin.

In 2019 Pick n Pay’s ROA was 5.8%, Shoprite was 6.8%, and spar was 8.2%. Spar had the best ROA due to the effective and efficient use of assets to generate profits. Pick n pay had the lowest ROA due to poor reinvestment decisions that did not generate enough income.

In 2020 pick n Pay had a ROA of 5.7%, Shoprite had 6.3% and Spar had 5.1%. Shoprite had the best ROA due to more investments in e-commerce activities. Spar had the lowest ROA due to poor strategic management.

In 2021 Pick n Pay's ROA was 4.1%, Shoprite was 9%, and Spar was 5.7%. Shoprite has the best ROA because it altered the number of dividends given to shareholders, returned cash to owners, issued additional shares, and sold assets to decrease debt, all of which helped to increase ROA to 9% because of the capital structure being maintained. Pick n Pay had the lowest ROA due to a 10.3% increase in inventory because of 80 net new business owned stores and increased centralisation in Boxer.

In 2019 Pick n Pay' ROE was 47.6%, Shoprite was 29%, and Spar was 24.5%. Pick n Pay had the best ROE because it is undertaking a high-priced acquisition and funding the purchase using a large number of shares. Spar had the lowest ROE because most of the capital inputs were funded from equity.

In 2020 Pick n Pay's ROE was 39.7%, Shoprite was 24.8% and Spar was 24.8%. Pick n Pay had the best ROE because it was more efficient when it comes to utilising investment financing to grow the business. Shoprite and Spar had the lowest because they did not use adequate resources provided by their equity investors to accumulate profits in generating income.

In 2021 Pick n Pay ROE was 28.6%, Shoprite was 26.8% and Spar was 26.3%. Pick n Pay had the best ROE because the manufacturing cost was low than its competitors. Spar had the lowest ROE because management did not work well with the investor's capital compared to its competitor.

## 5.3 RECOMMENDATIONS

With the growth of the internet in the country because of greater and better internet connectivity and internet penetration, e-commerce has not grown as it has been expected. This may be due to fear of online transactions due to online security fears. However, due to the Covid-19 pandemic and the lockdowns that ensued, retailers needed to react to remain in business. E-commerce became the easiest, safety, and cost-effective way to stay in contact with customers and gain their continued support. From the results, e-commerce has contributed much to the financial performance of retailers during the Covid-19 pandemic. It is therefore important for retailers and other e-commerce stakeholders to develop models of measuring e-commerce outcomes.

In this respect, the study, therefore, recommends retailers keep track of their online transactions. This will enable the business to adequately measure relevant output. Measures of e-commerce are to be clearly defined by businesses as they vary from industry to industry, and therefore each business should be able to outline the true measure of e-commerce uniquely and effectively. Businesses should sensitise and create awareness of e-commerce among their customers, at the same time providing adequate online security for them.

To enhance sales, which will improve gross profit margins, Pick n Pay should introduce new and redesign its own brand products across a variety of edible and non-edible consumables, as well as fresh and frozen convenience meals. Pick n Pay can enhance funds because it boosts production capacity, boosts sales volume, and lowers the average cost per item produced, all of which can be long-term strategies for enhancing net profit margin. Pick n Pay can finance themselves with debt and equity capital. By increasing the amount of debt capital relative to its equity capital, it can increase its return on equity. Financial leverage increases a business's ROE if the after-tax cost of debt is lower than its ROE. Pick n Pay may invest in other companies in form of associates, financial assets, or other types of investments. These investments will generate returns different from the business operating activities.

Shoprite can increase gross profit margin by implementing an ERP system to improve maturity on utilisation of the level of data available for management decision-making. ROA can be improved by maximising the use of its assets to increase sales

Spar can change prices to boost sales revenue to enhance gross profit margin and lower net operating expenditures to improve net profit margin. When compared to debt that must be returned with interest, Spar may fund its capital inputs more effectively using equity.

## 5.4 LIMITATIONS OF THE STUDY

The concept of e-commerce varies from one business to another since they adopt different business models with it. One of the limitations of the study was the use of only a few financial performance indicators, namely the gross profit margin, net profit margin, return on assets and return on equity. In addition, the influence of e-commerce should not only be measured in financial terms, but also non-financial terms, such as customer service, conversion rate, or cart abandonment rate. This was not taken into consideration in the current study.

## 5.5 SUGGESTIONS FOR FURTHER RESEARCH

The study suggests that more insight research should be done on the influence of e-commerce on non-financial and financial performance in the retail industry. Many other factors may influence e-commerce performance and should be included in the analysis.

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## ANNEXURE A: CHECKLIST

| | **E-commerce activities** | **x** |
|---|---|---|
| 1 | Product selection | |
| 2 | Ordering | |
| 3 | Payment | |
| 4 | Order processing | |
| 5 | Order despatched to the warehouse | |
| 6 | Delivery to the final customer | |

# ANNEXURE B: ETHICS CLEARANCE

NELSON MANDELA UNIVERSITY

FACULTY OF BUSINESS AND ECONOMIC SCIENCES

ETHICS CLEARANCE FOR TREATISES / DISSERTATIONS / THESES

**Instructions:**

- Should be completed by study leader and student
- Must be signed off by student, study leader and HoD
- ***Please note that by following this Proforma ethics route, the study will NOT be allocated an ethics clearance number***

**FACULTY:** Faculty of business and economics

**SCHOOL / DEPARTMENT:** Business management

I, Krüger, J the study leader for Shoriwa, P (216310709) a candidate for the degree of BCom Hons in Business Management with a treatise *Influence of e-commerce activities on financial performance In the retail industry: Pre ovid vs Post-Covid* considered the following ethics criteria:

| | | YES | NO |
|---|---|---|---|
| 1. | Is there any risk of harm, embarrassment of offence, however slight or temporary, to the participant, third parties or to the communities at large? | | x |
| 2. | Is the study based on a research population defined as 'vulnerable' in terms of age, physical characteristics and/or disease status? | | x |
| 2.1 | Are subjects/participants/respondents of your study: | | |
| 2.1.1 | Children under the age of 18? | | x |
| 2.1.2 | NMMU staff? | | x |
| 2.1.3 | NMMU students? | | x |
| 2.1.4 | The elderly/persons over the age of 60? | | x |
| 2.1.5 | A sample from an institution (e.g. hospital/school)? | | xx |
| 2.1.6 | Handicapped (e.g. mentally or physically)? | | x |
| 3. | Does the data that will be collected require consent of an institutional authority for this study? (An institutional authority refers to an organisation that is established by government to protect vulnerable people) | | x |
| 3.1 | Are you intending to access participant data from an existing, stored repository (e.g. school, institutional or university records)? | | x |
| 4. | Will the participant's privacy, anonymity or confidentiality be compromised? | | x |
| 4.1 | Are you administering a questionnaire/survey that: | | |
| 4.1.1 | Collects sensitive/identifiable data from participants? | | x |
| 4.1.2 | Does not guarantee the anonymity of the participant? | | x |
| 4.1.3 | Does not guarantee the confidentiality of the participant and the data? | | x |
| 4.1.4 | Will offer an incentive to respondents to participate, i.e. a lucky draw or any other prize? | | x |
| 4.1.5 | Will create doubt whether sample control measures are in place? | | x |
| 4.1.5 | Will be distributed electronically via email (and requesting an email response)?<br><br>Note:<br>• If your questionnaire **DOES NOT** request respondents' identification, is distributed electronically and you request respondents to return it *manually* (print out and deliver/mail); **AND** respondent anonymity can be guaranteed, your answer will be NO.<br>• If your questionnaire **DOES NOT** request respondents' identification, is *distributed via an email link and works through a web response system (e.g. the university survey system)*; **AND** respondent anonymity can be guaranteed, your answer will be NO. | | |
| 5. | Do you wish to publish an article from this study and submit to an accredited Journal? | | x |

*Please note that if **ANY** of the questions above have been answered in the affirmative **(YES)** the student will need to complete the full ethics clearance form (REC-H application) and submit it with the relevant documentation to the Faculty RECH (Ethics) representative.*

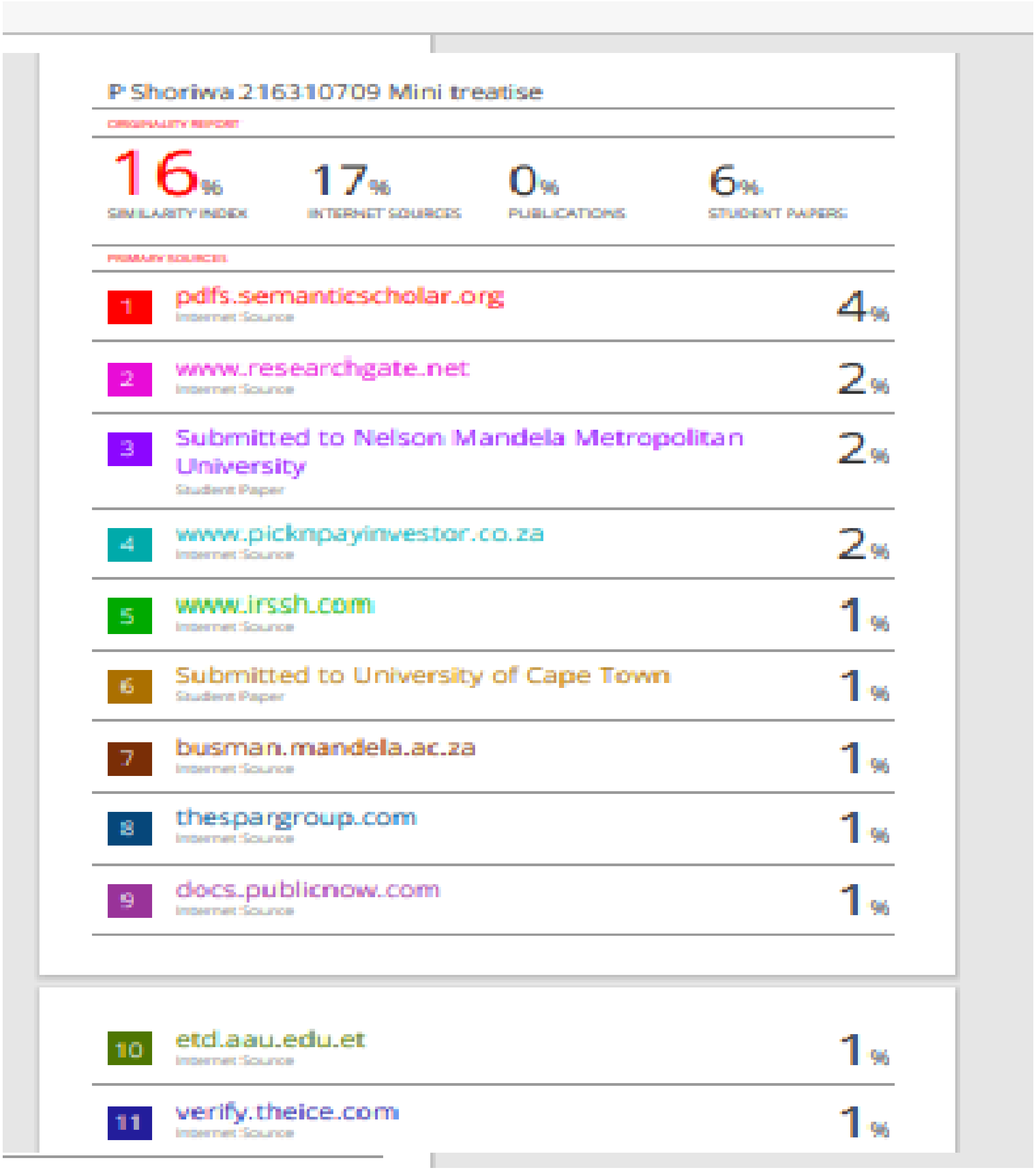
and hereby certify that the student has given his/her research ethical consideration and full ethics approval is not required.

Krüger
STUDY LEADER — 17/05/2022 DATE

HEAD OF DEPARTMENT — 17/05/2022 DATE

Perpetua Shoriwa
STUDENT — 16/05/2022 DATE

## ANNEXURE C: TURNITIN SUMMARY



P Shoriwa 216310709 Mini treatise

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