The role of loyalty programmes on retail fuel site profitability in Gauteng

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DECLARATION

I, Muzi Mtungwa, declare that this research report entitled 'The role of loyalty programmes on retail fuel site profitability in Gauteng' is my own unaided work. I have acknowledged, attributed, and referenced all ideas sourced elsewhere. I am hereby submitting it in partial fulfilment of the requirements of the degree of Master of Business Administration at the University of the Witwatersrand, Johannesburg. I have not submitted this report before for any other degree or examination to any other institution.

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ABSTRACT

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Thesis title: **The role of loyalty programmes on retail fuel sites profitability in Gauteng**

Loyalty programmes are one of a number of instruments used by businesses to retain existing customers, attract new customers and in the process retain them over a long term to sustain business profitability. They have been extensively investigated in the developed world with models developed to explain their role in customer retention. In the developing world, they are still being studied to understand if the models that have been developed in the developed world can be extended to the developing countries.

Loyalty programmes were extended to the fuel retail industry in 2010 by First National Bank (FNB) and its oil partner, Engen Petroleum. The role of these programmes in the fuel retail industry and their correlation to profitability, whether positive or negative has received little attention from researchers. Here, the author reports on the correlation of these programmes to business profitability. The report shows that there is a positive correlation between these programmes and the profitability of an oil company, while at the same time the report supports the assertion by the non-loyalty programme oil companies that these programmes have a negative effect on their business. These non-loyalty programme oil companies which have a market share of less than 7 percent have been forced to exit the retail industry due to the introduction of these programmes by the major oil companies and their partners. The findings recommend that the role of these programmes in the fuel retail industry is further researched as the authourities do not allow for discounting of the retail price of petrol.

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DEFINITION OF KEY TERMS AND CONCEPTS

1. Final products, refers to the products of the refining and blending processes.
2. Downstream Petroleum Industry, refers to the three sub-sectors of the petroleum value chain, namely: refining, marketing and retailing.
3. Major Oil Companies, in the South African context refers to Engen, Caltex/Astron, Shell Southern Africa, BP South Africa, Total South Africa, Sasol and PetroSA.
4. White sites, refers to independent fuel retail sites owned by independent companies not affiliated to any of the major oil companies operating in South Africa.
5. SAPIA, refers to the South African Petroleum Industry Association.
6. Retail fuel site ("garage" in South Africa) or retail sites, refers to sites where consumers can purchase fuel products for vehicles.
7. Fuel Retailers Association (FRA), refers to n organisation which represents the interests of retailers not linked to any of the major oil companies.
8. Department of Mineral Resources and Energy (DMRE) – the government department responsible for the licensing of retail sites.
9. "Petroleum product" means any petroleum fuel and any lubricant, whether used or unused, and includes any other substance which may be used for a purpose for which petroleum fuel or any lubricant may be used (as interpreted in the Petroleum Products Act of 1977).
10. "retail" means the sale of petroleum products to an end-consumer at a site and "retailer" shall be interpreted accordingly (in described in the Petroleum Products Act of 1977).

1 INTRODUCTION TO THE RESEARCH

1.1 Background and context

More generally, this research investigates the role of loyalty programmes on retail fuel site profitability in Gauteng. However, before getting to the research conceptualisation (Section 1.2), we briefly introduce the terms and concepts that we have used in conceptualising this research in Section 1.1 generally and broadly—while Chapter 2 has a more specific and detailed discussion on the research context. The research conceptualisation section provides for the research problem statement (Section 1.2.1) and consequently the purpose of this research (Section 1.2.2) as well as the research questions (Section 1.2.3). The delimitations and assumptions of the research study are in Section 1.3 while we discuss the significance of the research study in Section 1.4 and provide a preface to the research report in Section 1.5.

1.1.1 The South African Retail Fuel Industry

The South African fuel retail industry is dominated by the six of the seven major oil companies, Astron Energy (Pty) Ltd previously called Caltex, BP Southern Africa (Pty) Ltd, Engen Petroleum Ltd, Sasol Oil (Pty) Ltd, Shell Downstream South Africa (Pty) Ltd and Total South Africa (Pty) Ltd (SAPIA Annual Report, 2018). The seventh oil company, PetroSA Ltd is currently not involved in the fuel retail industry with the company focusing on the production, storage and wholesale marketing of petroleum products. The fuel retail industry is concerned with the retailing of petroleum products through retail sites to consumers. The Department of Mineral Resources and Energy (DMRE) defines 'retail' as the sale of petroleum products to end-consumers at a site (Petroleum Products Act, 1977).

These six major oil companies own between themselves 93 percent of the fuel retail service stations with the independent fuel retailers owning the remaining seven percent (Majola, 2020). Engen Petroleum is the leading fuel retail station owner with 998 sites, with Caltex/Astron Energy with 683 sites, Shell has 637 sites, BP has 548 sites, Total has 537 sites with Sasol having the least number at 354 sites amongst the majors (Majola, 2020). The remaining seven percent of the fuel retail sites are spread between the independent retailers not affiliated with any of the major oil companies.

1.1.2 Fuel loyalty programmes in South Africa

Loyalty programmes (LP's) are marketing investments designed to foster behavioural loyalty among a firm's best customers and, ultimately, increase firm performance (Chaudhuri, Voorhees & Beck, 2019).

The introduction of loyalty programmes by the major oil companies has been claimed to have resulted in fuel consumers being very selective of the sites that they utilise to refuel their vehicles and accessing convenience shops which offer cross-selling while the motorist is at the fuel retail site (Majola, 2020). The Fuel Retailers Association (FRA) claimed that, "established retailers continued to increase their market share while small ones were slowly being eroded out of the industry (Majola, 2020). Chaudhuri et al. (2019) state that there has not been a thorough evaluation of the effectiveness of the introduction of loyalty programmes on the financial performance of a business. The study is intended to investigate the role that loyalty programmes play on the profitability of fuel retail sites affiliated to these programmes in Gauteng and to use these results to understand the concern raised by the independent fuel retailers that they are losing business due to the introduction of loyalty programmes by the major oil companies.

1.1.3 An introduction to formative evaluation

The introduction of loyalty programmes within the fuel retail industry by Engen and its banking partner, First National Bank (FNB) in 2010 resulted in the whole fuel industry adopting the trend with all oil companies introducing their versions of loyalty programmes. This was done by the companies to win over new clients and to maintain existing clientele.

1.2 Research conceptualisation

1.2.1 The research problem statement

The introduction of loyalty programmes by the major oil companies has resulted in independent fuel retailers losing sales volumes and consequently being forced out of business due to the loss of customer patronage by retail fuel sites not linked to a loyalty programme. The independent fuel retailers have claimed that sites linked to loyalty programmes have become more profitable due to these programs.

The South African fuel industry is dominated by seven major players, Astron Energy (Pty) Ltd, BP Southern Africa (Pty) Ltd, Engen Petroleum Ltd, PetroSA Ltd, Sasol Oil (Pty) Ltd, Shell Downstream South Africa (Pty) Ltd and Total South Africa (Pty) Ltd (SAPIA Annual Report, 2018). These seven companies are responsible for the production and storage of final petroleum products. Six of these companies are also responsible for the distribution and final marketing of products to consumers. The six companies involved in the final marketing of fuel products exclude PetroSA Ltd. These companies own approximately 93% of the 4 027 fuel retail sites within South Africa, with the remaining seven percent being owned by independent (termed white sites) companies (Majola, 2020). The independent companies offer the same final products that these majors sell to the end consumer as they source their products from the same major companies.

The fuel produced and stored by these companies at refineries and depots is fungible, with the differentiation being introduced by the addition of performance additives prior to delivering the product to the fuel retail sites. These performance additives are added in very low concentrations (parts per million), thus allowing consumers to refuel their vehicles at any retail site of their choice and convenience, without having to worry about the possibility of incompatible fuels.

The South African retail price of petrol at retail sites is regulated by the Department of Mineral Resources and Energy (DMRE) through the Petroleum Products Amendment Act 58 of 2003 (Shongwe, 2012), with the fuel retail station operators which could either be an owner or a franchisee being paid a set dealer margin of 221.60 cents per litre of petrol sold to the consumer. The introduction of loyalty programmes in South Africa by the major oil companies, has been claimed to have resulted in their sales volumes at the forecourt increasing resulting in increased profitability as consumers became more conscious of where they refuel their vehicles as they want to earn points or rewards from the partners associated with the oil companies. A recent report indicated that loyalty programmes influence the purchasing behaviour of consumers, as the number of times customers purchased in stores as members increased, however there was uncertainty if the amount of money spent also increased (Kasai & Chauke, 2017). The outcome of another study showed that customers' perceptions of the rewards offered by loyalty programmes have direct positive effects on customer satisfaction, which positively influence their loyalty to the fuel brand. In addition, their perceptions also have a direct

effect on their loyalty to the brand. Their loyalty to the brand ultimately positively influences their intention to repurchase from the same brand (Mgiba & Madela, 2020).
There has however been an unintended consequence with the independent retail sites reporting that their sales volumes are decreasing as consumers stay away from their non-loyalty programme sites. The independent fuel retail sites through the Fuel Retailers Association (FRA) have raised a concern with the Department of Mineral Resources and Energy on the role of loyalty programmes to their businesses. The independent fuel retail sites have claimed to be losing sales and consequently being forced out of business due to the introduction and maintenance of loyalty programmes in the fuel industry by six of the seven major oil companies.

1.2.2 The research purpose (aim and objectives) statement

The purpose of this research is to investigate the role that loyalty programmes play and contribute to fuel retail site profitability linked to a loyalty programme within the Gauteng province.

The sale of final products to the consumers are highly regulated by the authorities with the major differentiator amongst the competitors being the overall level of service offered, promotions, reward programmes, additional selling through the convenience store at the retail site. Each franchisee or retail site operator is compensated by the oil company by using a formula determined by the DMRE, referred to as the dealer margin. The dealer margin is calculated based on the volume of fuel sold per litre through the retail site forecourt. Thus, the higher the volume of fuel sold, the higher the margin for the retail site.
The study will be focussed on understanding the role that these loyalty programmes have on the profitability of retail fuel sites affiliated to these programmes which were introduced by partners associated with six of the seven major oil companies.

1.2.3 The research questions as well as where applicable accompanying research hypotheses

1.2.3.1 Question 1: What is the prevalence of loyalty programme membership by consumers within the retail fuel sector?

Null hypothesis: There is a low prevalence of fuel loyalty programmes membership which is negatively correlated to business profitability
Research hypothesis: There is a high prevalence of fuel loyalty programmes membership which is positively correlated to business profitability

1.2.3.2 Question 2: Do consumers take into consideration their loyalty programme when required to re-fuel their vehicles?

Null hypothesis: Consumers do not take into consideration their loyalty programme when refuelling their vehicles which is negatively correlated to business profitability
Research hypothesis: Consumers take into consideration their loyalty programme when refuelling their vehicles which is positively correlated to business profitability

1.2.3.3 Question 3: Do consumers purchase goods at the convenience store when at the retail fuel site for refuelling?

Null hypothesis: Consumers do not purchase goods at the convenience store when at the retail fuel site for refuelling which is negatively correlated to business profitability
Research hypothesis: Consumers purchase goods at the convenience store when at the retail fuel site for refuelling which is positively correlated to business profitability

1.2.3.4 Question 4: Did retail sites linked to a loyalty programme observe an increase in sales volumes with introduction of the loyalty program?

Null hypothesis: Retail fuel sites linked to a loyalty program did not observe an increase in sales volumes which is negatively correlated to business profitability
Research hypothesis: Retail fuel sites linked to a loyalty program observed an increase in sales which is positively correlated to business profitability

1.3 Delimitations and assumptions of the research study

The retail fuel industry is a highly regulated industry with the South African government being central to the enforcement of these regulations. The following delimitations are applicable to the study; The research will be narrowed down to the retail price of petrol grades as these are regulated and sold at retail fuel sites at the same price by all companies. The retailing of all grades of diesel is excluded as the price at the retail site is not regulated. The study will be focused on the Gauteng market as it is the largest petrol consumption market in South Africa due to it being the economic powerhouse of the country with demand greater than four billion litres annually between 2009 and 2018 (Department of Energy, 2018). There are several other economic factors which influence the consumption of liquid fuels such as employment levels, rand to dollar exchange rate and others, which will not be the focus of this research. The researcher acknowledges these factors but has chosen to treat them as being constant for the purpose of the academic study.

The study will focus on the post-introduction of loyalty programmes to understand if these programmes have had a positive or negative correlation to profitability by the sites

affiliated to loyalty programmes. The nature of the fuel retail industry is very competitive with no published site volumes and financial statements by the franchisees or oil companies per retail site.

1.4 Significance of the research study

The interrogation of literature on loyalty programmes shows that there is still a lack of agreement between the different authors on the benefits of loyalty programmes to the business with protagonists positing that these programmes increase customer support (Lewis, 2004; Verhoef, 2003) and customer loyalty (Mgiba & Madela, 2020). Antagonists posit that these programmes are ineffective. Extensive research has also been conducted on loyalty programmes in the developed economies such as the United States of America (USA) with the development of a model on loyalty programme effectiveness by McCall and Voorhees in 2010. The significance of the study is to contribute to the development of understanding of the role of loyalty programmes in fuel retail station profitability in Gauteng, South Africa within its unique regulated fuel industry. The study aims to contribute to the understanding and application of loyalty programmes by management within retail fuel service stations.

1.5 Preface to the research report

To this end, the report has six chapters. Following this introductory chapter, Chapter 2 provides a literature review covering the problem, the past studies, the explanatory framework and the conceptual framework. Chapter 3 discusses the research strategy, design, procedures, reliability and validity measures as well as limitations. Chapter 4 and Chapter 5 present and discuss the findings, respectively, to interrogating our research questions while Chapter 6 summarises and concludes the research.

2 LITERATURE REVIEW

This chapter has three broad objectives; namely to understand the research problem, to identify the knowledge gap, and to develop a framework for interpreting the research findings. Specifically, in Section 2.1, we detail the research problem. In Section 2.2, we review literature on studies that have attempted a similar study or research. With information arising from Section 2.2, we identify and detail quantitative variables that are key to this research in Section 2.3 as well as a framework that we will use to interpret our research findings in Section 2.4.

2.1 Research problem analysis

The Fuel Retailers Association (FRA) announced in January 2020 that it intended taking the Department of Mineral Resources and Energy (DMRE) to court to force it to intervene and protect the small independent fuel retailers from the unfair competition by the major oil companies. The organisation claimed that the introduction of loyalty programmes was pushing the small fuel retailers out of business as the established major fuel retailers continued to increase their market share while small fuel retailers were slowly being eroded out of the industry (Majola, 2020). "The fuel retail sector operates in a highly competitive environment that is characterised by low profit margins and a high stock turnover" (Sartorius, Eitzen & Hart, 2007). The retailer's association further reported that loyalty programmes shifted the volumes sold from the independent retailers to the established oil majors and did not increase the overall national industry volumes (Fuel Retailers Association, 2020).

The competition for the limited share of the wallet of the consumer resulted in Engen Petroleum and its partner, First National Bank (FNB), introducing a fuel retail loyalty programme in 2010 (Mgiba & Madela, 2020). The programme was the first of its kind in the fuel retail industry in South Africa.

In the context of the South African petrol retail industry, six of the seven major oil companies (BP, Shell, Total, Engen, Caltex/Astron and Sasol) have all introduced loyalty programmes since 2010. These programmes were all initially introduced by their partners, these being the banks. This meant that these programmes were driven more by the partner than the oil company. Shell recently broke the industry trend and introduced its own

loyalty programme called the Shell V-Plus, (Writer, 2019). The common theme amongst all these programmes, is that they were all introduced by the oil company to win over and maintain the consumers patronage, improve sales volumes and ultimately profitability.

Kasai and Chauke (2017) posit that, "globally there have been contradicting views on the effectiveness and impact of loyalty programmes (LP's) on customers' purchasing behaviour". Marketing literature and textbooks posit that loyalty programmes increase consumer patronage and loyalty to the business offerings. However, scholars within the field of loyalty programs have differing views on their impact. Protagonists posit that, "these programs increase customer support (Lewis, 2004; Verhoef, 2003), and long-term loyalty" (Mgiba & Madela, 2020). Dowling and Uncles (1997) posit that the main objectives of loyalty programmes are to retain existing customers, increase their loyalty and potential value, and induce cross-product buying.

The outcome of a recent study showed that "customers' perceptions of the rewards offered by loyalty programmes have direct positive effects on customer satisfaction, which positively influence their loyalty to the fuel brand. In addition, their perceptions also have a direct effect on their loyalty to the brand. Their loyalty to the brand ultimately positively influences their intention to repurchase from the same brand". (Mgiba & Madela, 2020).

In the petrol retail industry, fuel retail sites belonging to oil companies with loyalty programmes will experience an increase or maintenance of their customer levels and the subsequent increase or maintenance of their petrol sales volumes. "Sales volumes of petrol have been used as a proxy for the profitability of retail fuel stations due to the confidential nature of profit data. This proxy is considered appropriate as profitability is normally a direct function of fuel sales volumes (Smalley, 1999). Furthermore, as fuel sales increase, there is greater likelihood of customers utilising non forecourt facilities like convenience stores, car washes and ATMs", (Smalley, 1999).
It would therefore be expected that sites belonging to oil companies with no loyalty programs will be expected to experience a decline in the sales volumes of fuel and the corresponding decline in profitability.

While the antagonists posit that these programs are ineffective. "Voorhees et al. (2015) argued that, despite the substantial investments that companies make in loyalty

programmes, these companies and marketers are given little indication of the overall efficacy of their loyalty programmes in driving customers' spending and overall customer retention" (Wait & Lekhuleni, 2020).

The industry sells a product which is fungible, meaning that the consumer can use the petrol from any of the oil companies. The implication of the petrol fungibility means that there is no differentiation on product offered to the consumer. The South African retail price of petrol is regulated by the South African Government through the Petroleum Products Act of 1977, with retailers getting a fixed margin per litre of petrol sold, while the retail prices of diesel and illuminating paraffin are not regulated. A retail fuel service station owner gets a margin of 226cents/litre for every litre of petrol sold (SAPIA Annual Report, 2018). Diesel and illuminating paraffin only have their wholesale price regulated. The Petroleum Products Act of 1977 as amended in 2003 and 2005, does not allow for the discounting of the retail price of petrol (Mondliwa & Roberts, 2014), as currently promised by these loyalty programmes.

The low profit margin has meant that the oil companies and the retail fuel site owners have had to find alternative ways to operate profitable businesses. Hence, the drive by the oil companies to introduce loyalty programmes to retain and win over new customers.

The review of literature from the protagonists and antagonists, although contradictory, and the proliferation of loyalty programmes within the South African retail sector and the apparent lack of enforcement of the Petroleum Products Acts of 1997 as amended in 2003 and 2005, would seem to support the statement by the Fuel Retailers Association that the introduction of loyalty programmes has a negative effect on their profitability and ability to remain profitable in the petrol retail industry.

2.2 Research knowledge gap analysis

The current existing literature has been extensively focused on the understanding of loyalty programmes in the fuel retail industry and the perceptions of consumers and their loyalty to the brand, with the researcher finding no evidence of literature on the impact of loyalty programmes on fuel retail sites profitability. The methods followed in these studies can be used to respond to the knowledge gap identified during the literature

review. However, the conclusions on the loyalty programme evaluations can be used for comparative purposes.

The outcome of the analysis of the difference between the study research problem and what has been investigated by other authors on loyalty programmes in the fuel retail industry yields the knowledge gap to be uncovered. The uncovering of the knowledge gap provides justification for the research to be conducted and the contribution to the body of knowledge. "By decoding what others have not yet pursued, this interrogation provides justification why a research is worth pursuing and, if so, which of the strands amongst those identified during the research problem analysis should we pursue to effectively contribute to the body of knowledge" (Wotela, 2019).

2.2.1 Loyalty Programmes

"The boom in information technology and the shifting of firms toward a customer-centric focus have prompted the development of loyalty programs (LPs) as important customer relationship management tools" (Bijmolt, Dorotic & Verhoef, 2010). "Loyalty programs (LPs) have increased in popularity and have been studied extensively in the academic literature with mixed findings" (Bijmolt et al., 2010). McCall and Voorhees (2010) also posit that empirical research has shown mixed findings which have created more confusion for practitioners and researchers.

Loyalty Programmes are defined as "marketing investments designed to foster behavioural loyalty among a firms' best customers and ultimately, increase the firm's performance" (Chaudhuri, Voorhees & Beck, 2019). Loyalty programmes are very popular with community members around the developed world with Bijmolt et al. (2010) reporting that 92% of the United Kingdom (UK) consumers participated in loyalty programmes, while Meyer-Waarden (2015), reported that more than 90% of European and United States (US) shoppers owned at least one loyalty card. The number of loyalty card memberships in the US alone exceeded 2.1 billion memberships in 2010 (Meyer-Waarden, 2015). The high number of loyalty programme membership in the US when the population in 2010 was 309 million (United States Census Bureau, 2020), is indicative of each consumer being a member of more than one loyalty program across several industries. However, most of these loyalty programmes are within the services or retail industry (Meyer-Waarden, 2015; Wait & Lekhuleni, 2020 and Bijmolt et al., 2010).

Wait and Lekhuleni (2020) posit that South Africans are no different from the phenomenon of being attracted to loyalty programmes. Wait and Lekhuleni (2020) concluded that about 62 percent of South Africans hold membership of two to five programmes and 6 percent hold membership of between six to ten loyalty programmes.

"Loyalty programmes in the fuel industry in South Africa—an emerging economy—are a very recent development, as the industry has been regulated by the government, and any form of promotion in this sector has been disallowed" (Wait & Lekhuleni, 2020). There has been limited research on loyalty programmes within the fuel retail industry globally. Rossi (2018) investigated a similar phenomenon of users within the travel industry who travelled on business using their vehicles to understand the purchase behaviour of consumers within the fuel industry. The study was carried out in Italy with little or no regulation on the price of petrol. In a South African context, there has been an increase in studies being carried out within the fuel industry with recent studies by Lekhuleni & Wait (2020), Shongwe (2012) and Mgiba and Madela (2020).

In studies conducted by Lekhuleni and Wait (2020), the authors posit that consumers displayed a high level of excitement when rewarded by being members of a loyalty programme. Consumers could redeem these rewards at a later stage, especially during times of great financial difficulty. Shongwe (2012) reported that there was a lack of brand loyalty amongst these consumers with several of them reporting that their purchase behaviour was not influenced by the oil companies marketing programme. Many of the respondents also report to be not aware of any fuel loyalty programme. Mgiba and Madela (2020), conducted a study on South African university students on their perceptions of loyalty programme membership and customer satisfaction and concluded loyalty programme as having a positive influence on the students and their loyalty to the brand. The literature review from the different studies shows that there are varied outcomes on the role of loyalty programmes in the retail fuel industry.

Lekhuleni and Wait's (2020) interrogated factors that contributed to effective loyalty programmes at fuel retail sites in an emerging economy country, this being South Africa. They did this by testing an established United States of America (USA) academic theory on loyalty programmes by McCall & Voorhees (2010). The theory purports that there are three main categories driving the effectiveness of a loyalty programme, these being the

structure of the loyalty programme, the structure of the rewards, and the customer factors. The study was also grounded in the relationship marketing theory (RMT).

The study followed a qualitative research strategy with a small target population of 12. A non-probability sampling technique was used to source certain characteristics and features of the target population. In-depth interviews were conducted with 9 of the identified participants at different retail fuel sites with the requirement being that each of the participants had to be a loyalty programme member. The information was collected by recording the sessions with the target population and analysed using Inductive Content Analysis.

The key research findings of the study reported that the participants were excited about earning rewards for fuel purchases, had a positive attitude towards the reward programme and were not concerned about the location of the retail fuel site. They indicated that they were more concerned about getting the rewards from the brand and not a specific site. Two limitations affected the study, the small target population and the usage of theories based on a developed economy. These limitations meant that the findings should be applied with due care to the general population in South Africa.

Another study within the South African fuel industry was conducted by Mgiba and Madela (2020). They investigated the perception of the value of rewards for loyalty programmes by South African students, how it affected their satisfaction with the fuel brand, how their satisfaction with the brand affected their loyalty to the fuel brand and intention to continue buying from the same brand.

The study adopted a quantitative research strategy which uses Statistics to analyse the data. The chosen target population were 350 business school students at a South African University in Gauteng. A 5-point Likert scale data collection instrument was developed for data collection. A self-administered written survey questionnaire was distributed amongst the business school students at a university in Gauteng. The feedback was collated and analysed using the statistics software, SPSS 25.

The findings showed that the customers' perception of loyalty programmes had a direct effect on customer satisfaction. The positive effect on the satisfaction by the customer influenced their loyalty to the brand. "Their loyalty to the brand ultimately positively influences their intention to repurchase from the same brand" (Mgiba & Madela, 2020).

The limitations of the study were that it only focused on the business school students at a University in Gauteng, which is not representative of the public of South Africa.

2.2.2 Petrol Price and Dealer Margin

The South African liquid fuels industry is a complex and huge industry consisting of the upstream and downstream portions. The upstream sector is responsible for the prospecting and production of crude or gas to produce final products, with South Africa having very little active participation in this sector. The country has a thriving downstream sector responsible for the importing and retailing to the end consumers (Crompton, Sing, Filter & Msimango, 2020).

The retail price of petrol at fuel retailing sites within South Africa is regulated by the South African government. "The government has intervened in and/or regulated markets involved in the manufacture, distribution, and retailing of liquid fuels in various ways since the 1930s without providing formal reasons for doing so" (Crompton et al., 2020). Crompton et al. (2020) posit that this is thought of being due to the successive governments intention of not only protecting investors within the fuel value chain but also to protect the large number of people employed within the sector. The regulation within the petrol value chain is strictly enforced by several regulatory bodies as seen on the table below:

Table 1: Value chain and petrol regulation

Value chain element	Market character	Economic regulation	Regulator	Regulatory methodology
Shipping oil and refined products	Deep sea and coastal routes competitive	None	n/a	n/a
Import parcels	Natural monopoly	Competition Act exemption required	Competition Commission	n/a
Port Access	Natural monopoly	Right to construct facilities and to cross Admiralty Reserve	Ports Regulator + Transnet National Port Authority	Port user tariffs ROA + negotiated concessions
Import terminals	Crude oil natural monopoly Refined products limited competition	Entry—licence required Price cap	NERSA	ROA
Import tariffs	Competitive	No import tariff	International Trade Administration Commission (ITAC)	n/a
Import control (quantitative)	Competitive	Approval required for all imports and exports	ITAC and DoE jointly	n/a
Refining	Competitive with regional monopolies	Entry—light-touch licensing Price—price cap refinery gate	DoE	Import parity pricing (BFP)
Wholesaling (includes some retail assets)	Somewhat competitive—access to key infrastructure limited	Entry—light-touch licensing Price—price cap	DoE DoE	ROA (RAS)
Storage (coastal and secondary)	Limited competition	Entry—licence required Tariff cap	NERSA	ROA
Inland transport (interprovincial pipelines)	State monopoly – common carrier access	Entry—Licence required Tariff cap	NERSA NERSA	ROA
Inland transport to secondary storage and service stations (road)	Competitive	None	n/a	n/a
Inland transport (rail)	State monopoly—negotiated carriage	None	n/a	n/a
Inland transport secondary storage to service stations (road)	Competitive	Entry—none Price—price cap	DoE	Cost recovery
Retail margin	Competitive	Entry—onerous licence required Price—price cap (petrol only)	DoE DoE	Cost recovery

Table 1 : Value Chain and Petrol Regulation (source : Crompton et al., 2020)

2.2.3 Petrol price

The price of petrol which the end consumer pays at the retail fuel forecourt fluctuates on a monthly basis and is made up of the following components, basic fuel price (BFP), regulatory accounting system (RAS) and government taxes and levies. In February 2020, these components contributed to the price of petrol in ratios of 40 percent (BFP), 20 percent (RAS) with taxes and levies contributing the remaining 40 percent (Crompton et al., 2020). "The BFP is driven primarily by the crude oil prices and the rand-dollar (ZAR/USD) exchange rate (Crompton et al., 2020). The retail price of petrol is adjusted on the first Wednesday of every month. The composition of the petrol price in Gauteng is made up of the components below with a dealer being paid a margin of 221.60 cents per litre of petrol sold at the forecourt.

Inland Fuel Price (Zone 9C)	Petrol - ULP95	Petrol - ULP93
	cent per litre	cent per litre
Contribution to the basic fuel price (BFP)	600.17	593.17
Wholesale Margin	40.50	40.50
Service cost recoveries	43.00	43.00
Storage, handling & delivery costs	27.20	27.20
Distribution costs	15.80	15.80
Router differential	-	-
Dealers margin	221.60	221.60
Zone differential in Gauteng	63.70	63.70
IP Tracer levy	-	-
Fuel levy	377.00	377.00
Slate levy	-	-
Customs & excise duty	4.00	4.00
RAF levy	207.00	207.00
DSML (Inland Demand Levy)	10.00	-
Petroleum Products Levy	0.33	0.33
Equalisation Fund Levy	-	-
Pump rounding	- 0.33	- 0.33
Sub-total	962.27	
	584.00	

Table 2: Price of petrol in Gauteng (source: SAPIA, 2018)

A site located in Gauteng gets revenue of 221.60 cents for every litre of petrol sold at its forecourt. This is very important since the regulations do not permit the discounting of petrol by each of the sites and the oil companies. The fuel sold at each of these sites is fungible, meaning a consumer can refuel at any site without having to worry about the

difference in the properties of the fuel and hence making the market extremely competitive considering the low margins. This requires that each site sells large volumes of fuel to off-set the fixed running costs to be profitable. The role of loyalty programmes is exactly to create this loyalty from customers to frequent the site and maintain or increase its fuel sales.

2.2.4 Fuel Volumes

The total volumes of all petrol grades sold in South Africa in 2019 were 10,773,208,065 litres (DMRE, 2020). Interestingly, petrol is not the leading grade of fuel sold within the country as one would expect considering the number of vehicles in the country (Crompton et al., 2020; DMRE, 2020). The Gauteng province during this period accounted for 4,076,244,626 litres of petrol sales, representing 38% of the national sales. These sales volumes represent revenue of R9,032,958,091 paid to retail sites as dealer margins. An indication of consumer preference for loyalty programmes partner sites should provide a guide of the potential impact of these programmes on business profitability.

The review of literature indicates that there is a knowledge gap to be investigated on the role of loyalty programmes on the profitability of fuel retail sites, whether positively or negatively correlated. A number of scholars have investigated other loyalty program factors within the fuel retail industry internationally and locally, however, none have investigated the role of these programmes on site profitability with volumes being used as a proxy due to the secretive nature of the liquid fuels industry.

2.3 Quantitative variables key to the research

The interrogation of literature on loyalty programmes in the South African context, indicates that there is a prevalence of loyalty programmes with extensive research done in developed economies and within the field of marketing, but with very little within the retail fuel industry (Wait & Lekhuleni, 2020). This section introduces the variables to be used to test the research hypotheses and ultimately answer the research questions on the role of loyalty programmes in the retail fuel industry.

Loyalty programmes fall within the academic field of Marketing and its component of Relationship Marketing also called Customer Relationship Management (CRM), which is

focused with the long-term retention of customers through the building of loyal, satisfied customers which in the long term will be profitable for the business.

The research variables used in the study are all based on the previous work done by others within the field of loyalty programmes with the following variables being utilised to answer the research questions:

1. Customer Loyalty,
2. Customer Repurchase Intention,
3. Customer Cross-Selling, and
4. Business Profitability

2.3.1 Customer Loyalty

"Loyalty is defined as repeated purchases of particular products or services during a certain period of time" (Yi & Jeon, 2003). The purpose of the variable is to measure the prevalence of loyalty programmes within the retail fuel industry by members of the public and will be measured by using the previously developed constructs such as loyalty to the brand. Yi and Jeon (2003) posit that loyalty to a company is understood to be a positive attitude to the provider. To operationalise customer loyalty in a competitive market, the number of customers who are 100 percent loyal to the particular retail fuel brand will be measured.

The data on customer loyalty to the retail fuel brand was sourced using a questionnaire and getting feedback from the target population based in Gauteng.

2.3.2 Customer Repurchase Intention

The customers repurchase intentions will be measured using the items adapted from the study by Mgiba and Madela (2020).

2.3.3 Customer Cross-Selling

The regulation of the retail petrol price in South Africa has meant that retail fuel sites have had to use other means to differentiate themselves, this they have done by offering convenience services at the forecourt, car wash service and speciality services (Sartorius, Eitzen and Hart, 2007). These services which can be classified as a complement to the

fuel offered to the consumer present an opportunity for the retail fuel site to cross-sell and increase revenues accruing to the business. Cross-selling is defined as the selling of additional products or services to existing customers (Beneke et al, 2016).
The usage of these additional services by consumers when visiting the retail site was used as source data to evaluate their impact on the profitability of the site.

2.3.4 Business Profitability

"Loyalty programs (LPs) are marketing investments designed to foster behavioural loyalty among a firm's best customers and, ultimately, increase firm performance" (Chaudhuri, Voorhees & Beck, 2019). The authors posit that for a loyalty program to be effective and worthwhile in the long term, the business must observe significant increases in business performance for it to recover the initial and ongoing investments.

The retail price of fuel in South Africa is regulated with the dealers being paid a set margin per litre of fuel, hence the retailer will make more money per customer if the customer purchases a bigger volume of fuel every time they visit the site or an increase in the number of visits. The independent variable collected from the sample population was the actual rand spend on fuel per re-fuel instance, which can be readily converted to the dealer margin.
The data for the study was sourced by using a structured questionnaire that was electronically sent out as a survey to the target audience. The selection of this approach of a structured questionnaire where the respondents are asked questions and required to respond within a given range of answers landed the study to be a quantitative approach.

2.4 Framework(s) for interpreting research findings

This component will detail the framework that will be used to interpret and explain the research findings mainly consisting of theories but can be extended to established models and constructs.

This section introduces the framework that will be used to interpret the empirical results to explain the role of loyalty programmes in the retail fuel industry in South Africa. Relationship Management Theory (RMT) will be used to interpret the findings of the study. The fundamental goal of relationship marketing is the maximising of the lifetime value of the customer. "In this context, we define the lifetime value of a customer as the

future flow of net profit, discounted back to the present, that can be attributed to a specific customer" (Christopher, Payne & Ballantyne, 2002).

Moller and Halinen (2000), posit that researchers in the 1970's interested in industrial and marketing channels began developing frameworks and theories which focussed on the relationship between business buyers and sellers. This approach differed from the traditional marketing-mix method which was focused on a transactional view from a marketer's perspective to an on-going relationship. This approach was based on the four marketing traditions of Business Marketing, Marketing Channels, Services Marketing and Database Marketing and Direct Marketing. These traditions all had a focus on the development and management of external relationships with the business customers. "The rise of relationship marketing was closely linked to the growth of the service sector characterised by long-term customer relationships, focus on customer-firm interaction and customer participation in service outcomes" (Gummerus, von Koskull & Kowalkowki, 2017).

Relationship marketing emphasises relationships between the business and consumers rather than a transactional approach to marketing. It also seeks to understand the economics of customer retention whilst also highlighting the critical role that internal marketing play in achieving external marketing success.

2.4.1 Disadvantages and limitations of relationship management

Literature on relationship marketing is extensively focused on the positives and benefits that organisations can derive from entering into relationships with customers. However, there are instances where organisations have used the relationship with the customer to deliberately lock them in with contracts, subscription fees and confusing them with the contractual fine print (Payne & Frow, 2017). This can be observed in the South African context by the number of complaints lodged against cell phone service provider contracts, fitness gyms and banks. Some of these organisations have also engaged in instances where information about customers has been sold to third parties without the consent of customers. These actions by the companies have resulted in regulators worldwide focusing on the invasion of privacy of consumers with South Africa passing into law the POPI Act of 2013. The purpose of the act is to protect an individual's personal

information whilst also maintaining access and free flow of this information and to regulate its dissemination.

2.5 Summary and conclusion

2.5.1 Summary of literature reviewed

The interrogation of the literature shows that although there are extensive loyalty programmes within the South African context, the majority of these programmes are within the retail space. The fuel companies joined the loyalty programme within the last decade as partners to the banks and the retail companies. Research output by scholars on the role of these loyalty programmes within the different industries has been extensively investigated in the first world with a framework developed by Voorhees and McCall being used to understand these programmes and their constructs.

There is still a knowledge gap to be researched with the specific emphasis on the role of these programmes within a regulated sector such as the retail fuel industry in South Africa.

2.5.2 Proposed research strategy, design, procedure and methods arising from the literature reviewed

The interrogation of the literature on previous research on loyalty programmes in South Africa by researchers has followed both a quantitative and qualitative research approach. This study adopted a quantitative research strategy as used in a similar study by Mgiba and Madela (2020). The design proposed for the study was a cross-sectional approach, which focuses on a snap-shot in time. A structured questionnaire was used for data collection with the data being analysed using IBM's SPSS.

3 RESEARCH STRATEGY, DESIGN, PROCEDURE AND METHODS

In Section 1.2.3, we have posed four questions that this research report intends to answer—that is, 'What is the prevalence of loyalty programme membership by consumers within the fuel retail sector?', 'Do consumers take into consideration their loyalty programme when required to re-fuel their vehicles?', 'Do consumers purchase goods at the convenience store when at the retail fuel site for refuelling?' and 'Did retail sites linked to a loyalty programme observe an increase in sales volumes with introduction of the loyalty programme?'. We have since reviewed literature and developed an interpretative as well as conceptual framework that will guide the choice of techniques to be used. This chapter identified and described the research approach, design as well as procedure and methods that were employed in this research to collect, process, and analyse empirical evidence. Broadly, it had three objectives; namely, to identify and describe the research strategy (Section 3.1), the research design (Section 3.2), as well as the procedure and methods (Section 3.3). The chapter also describes the reliability and validity measures (Section 3.4) that this research applies to make it credible as well as the technical and administrative limitations of the choices we make (Section 3.5).

3.1 Research strategy

A research strategy is a plan that a researcher intends to follow in conducting the research study under consideration detailing the steps and procedures that will be followed in executing the empirical portion of the study. These are the detailed steps and procedures that were followed in the data collection, analysis and interpretation. Bryman (2012) posits that research strategy refers to the orientation of the study under review. These research strategies can be divided into three broad categories, qualitative, quantitative and mixed or combined.

A quantitative research strategy was adopted for the study. This strategy was selected due to its orientation to the testing of theories, with the testing of relationship marketing's theory that loyal customers are profitable to a business. The relationships to be tested was the correlation between the variables and business profitability.

3.2 Research design

A research design is a plan showing the required data and detailing how the sampling of the required population will be done and the methods to be used for data collection and analysis. "A research design is a procedural plan that is adopted by the researcher to answer questions validly, objectively, accurately and economically" (Kumar, 2011).
Bryman (2012) lists the following five generic strategies that a researcher can select from based on the outcome of their literature review: cross-sectional, longitudinal, case study, comparative, and experimental. The study was conducted using the **cross-sectional design approach**, which focused on investigating the role of loyalty programmes on the profitability of retail fuel sites at a specific moment in time. In a cross-sectional approach design, the researcher collects data from the selected population at a point in time commonly referred to as a snapshot (Saunders & Lewis, 2012).

The interrogation of literature on loyalty programmes in the South African context revealed that although there was a high uptake of these programmes, their role on the profitability of the fuel retail industry has not been researched.

The advantage of a cross-sectional approach is that it is simple and inexpensive to administer as it was done over a short duration of time. "Because the time period for testing is short, dropout is minimised" (van Zyl, 2014).

3.3 Research procedure and methods

This section documents the actual procedure and the methods employed in this research to collect, collate, process, and analyse empirical evidence. Broadly, we detail the data and information collection instruments (Section 3.3.1), the target population and sampling of respondents (Section 3.3.2), the ethical considerations during the research process (Section 3.3.3), data and information collection process and storage (Section 3.3.4), data and information processing and analysis (Section 3.3.5) as well as the background description of the respondents who provided empirical evidence for this research study (Section 3.3.6).

3.3.1 Research data and information collection instrument(s)

A research data collection instrument is a method which is used to collect primary data from the selected sample population. The collection of data was done by administering a questionnaire (Kumar, 2011). The selection of a self-administered questionnaire with rigid questions allowed for the research questions to be answered.

Kumar (2011) posits that there are two methods for data collection, these being from primary and secondary sources. In secondary sources, the information is extracted from documents already produced by other researchers, while in primary sources, the researcher gathers the information from the sources being studied. In the primary approach, the researcher finds out first-hand information from the study participants (Kumar, 2011).

Data collection in the primary approach can be done by using several methods such as observation, interviewing and administering a questionnaire (Kumar, 2011).

In a questionnaire, all the respondents are asked the same questions in the same order. "The term questionnaire refers to all methods of data collection in which each potential respondent is asked to answer the same set of questions in the same order (Kumar, 2011). The use of a questionnaire to collect data is called structured data collection. The study followed a fully structured approach for data collection, this being the questionnaire. The selection of the approach was based on the minimum amount of time which the researcher had to gather the data and the challenges presented by the advent of the Covid-19 pandemic which has made it difficult to approach people and conduct interviews. The research questions were also clear and easy to understand for the selected target population.

The questions used in the data collection instrument have been derived from the research questions and from research previously carried out by others.

3.3.2 Research target population and selection of respondents

3.3.2.1 Research target population

"A population is a group of potential participants to whom you want to generalise the results of a study" (van Zyl, 2014). Bryman (2012), describes the target population as the total population that the sample population will be selected from. The author further posits that the population is not only people, but can be nations, cities and other items that are under study by the researcher. The target population for the study were all consumers located in the Gauteng province who owned a car and were members of a loyalty programme incorporating one of the oil companies.

The benefit of selecting only consumers located in Gauteng, is that the province is the economic powerhouse of South Africa with petrol sales of more than four billion litres annually between 2009 and 2018 (Department of Energy, 2018). The selected sample was thus a representative sample to investigate the role of loyalty programmes in fuel retail site profitability in Gauteng.

3.3.2.2 Sampling or selecting respondents from the target population

"Sampling, therefore, is the process of selecting a few (a sample) from a bigger group to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group" (Kumar, 2011). The study was conducted using a quantitative approach with probability sampling being followed. Probability sampling is an approach in which the sample population is selected using a random process (Bryman, 2012).

Bryman (2012) posits that there are four main types of probability sampling: simple random sampling, systematic sampling, stratified random sampling and multi-stage cluster sampling. The study was conducted using the simple random sampling approach. "With random sampling, each unit of the population has an equal probability of inclusion in the sample" (Bryman, 2012).

The sample was selected to include the researchers' fellow MBA students, colleagues, peers and community members based in Gauteng province.

The benefit of using a simple random approach while sampling is that the findings can be generalised from the sample to the population.

3.3.3 Ethical considerations when collecting research data

"Today, ethics refers to a branch of philosophy concerned with how people should act, judgments about those actions (e.g., right versus wrong, good versus bad), and developing rules for justifying actions" (Kitchener & Anderson, 2000). Saunders and Lewis (2012), posit that research ethics is the ability of the researcher to behave appropriately and respect the rights of others who are subjects of the research.

A search on the history of ethics reveals that there have been a series of abuses and unethical conduct by researchers when conducting research. Van Zyl (2014), lists some of the most notable ones such as, The Tuskegee Syphilis Study carried out on African American men where researchers withheld treatment from the participants although penicillin had been found to be the cure. The researchers also did not inform the participants that they were part of a research project. The conduct of research on prisoners in concentration camps by German scientists and Saul Krugman, Joan Giles and other researchers conducting research on mentally disabled children by intentionally infecting the children with the hepatitis disease. These unethical practices and others resulted in the adoption of the Nuremberg Code for research on human subjects.

The researcher of this study is an employee of Sasol Energy, with Sasol providing a bursary for the researchers' Master of Business Administration (MBA) studies. However, Sasol Energy has not been involved in the choice of research topic for the researcher, with the choice being solely of the researcher. The research topic was chosen based on the researcher's personal interest in the fuel retail industry and for purposes of completion of the MBA studies. The researcher is involved in the fuel industry on the downstream side and has extensive experience in the operation of storage and distribution facilities and the management of joint venture (JV) facilities within the petrochemical industry. The role of loyalty programmes in the fuel retail industry is still a mystery within the South African fuel retail context and the researcher's interest is to contribute to its understanding and the management learning that can derived from the study.

The study is not sponsored or sanctioned by any of the oil companies.

3.3.3.1 Deception

"Deception occurs when researchers represent their work as something other than what it is" (Bryman, 2012). Researchers use deception in instances where they would like respondents to provide a natural response in an experimental treatment (Bryman, 2012). The research into the role of loyalty programmes in retail fuel site profitability in Gauteng will not expose the respondents to deception as there are no experiments involved.

3.3.3.2 Protection from harm or stress

The protection of research participants requires that they are not exposed to any physical or psychological stress. These can take the form of physical harm, loss of self-esteem, stress and harm to a participant's development (Bryman, 2012). There was no physical interaction planned to be done with the research participants as they were required to take a self-completed questionnaire. The duration of the questionnaire was not longer than 5 minutes with the questions selected not to bring stress to the participants. The participants were also not be required to search for data to be able to complete the questionnaire.

3.3.3.3 Informed consent

"Informed consent is a legal document whereby a participant agrees to voluntarily take part in a research study" (Field-Springer, 2018). It is part of ethics that a researcher is required to adhere to when using human participants in a study. Informed consent places a responsibility on the researcher to fully inform the participants of what the research entails and their right to voluntary take part and withdraw from the study at any stage. The first page of the self-completed questionnaire contained information on the research being undertaken and a statement indicating that proceeding past the first page will be taken as acceptance of informed consent.

3.3.3.4 Confidentiality

Confidentiality refers to the ability of a researcher being able to protect the identity and the responses provided by the individual participants (Kumar, 2011). The questionnaire was designed to exclude the participants' personal details to maintain confidentiality. The

raw data collected was stored on the researcher's password protected Microsoft Cloud account.

All participants were informed on the first page of the e-mail and electronic survey of their right and confidentiality when taking the survey. All the data received from the responses by the respondents has been safely stored in the researchers OneDrive cloud account and will be archived for a period of a year. The data will be destroyed after a period of a year.

3.3.4 Research data and information collection process

Data collection is the systemic collection of research data from the respondents by the researcher using a selected data collection approach. The data can be collected from primary sources or through secondary sources (Kumar, 2011). The main modes of primary data collection that are used are; Observation (participant or non-participant), Interviewing (structured or unstructured) and Questionnaire (mailed or collective administration), while secondary data collection is done through documentation which includes earlier research, government publications and census data (Kumar, 2011).

The data collection for this study was by both primary and secondary sources. The primary data was collected using an online self-completion questionnaire. The primary data was collected from the sample population while the secondary data for the dealer margin was sourced from the retail price of petrol in the Gauteng area.

Leedy and Ormrod (2016) posit that this form of data collection is advantageous to administer as it is cheaper, quicker and has no interviewer effect on the respondents. Due to it being self-completion, researchers tend to make the data collection instrument shorter to prevent 'respondent fatigue'.

The data and information were collected using Qualtrics software with e-mails and an anonymous link being sent out electronically to the sample population.

The raw data was stored on the researcher's password protected cloud account and laptop. There were no personal details of the respondents that were collected with only categorical data being sourced.

3.3.5 Research data and information processing and analysis

3.3.5.1 Research data and information processing

Kumar (2011) describes data processing as a process of cleaning the raw data by ensuring that it is free from errors, incompleteness and inconsistencies, coding the data and finally entering it into a computer program. Data cleaning is a process in which the raw data is edited to ensure that it is free from errors, incompleteness and inconsistencies. The study raw data was checked for completeness and internal consistency.

Data coding in quantitative research is a process through which quantitative and categorical data is transformed into numerical values that can be manually or electronically analysed using computer software (Kumar, 2011). Data entry onto a computer is the manual processing by the researcher of the cleaned and coded data into the computer software. The raw data was coded for processing using SPSS with the correlation between the variables tested.

3.3.5.2 Research data and information analysis

Wahyuni (2012) defined data analysis as a process that involves the drawing of interpretations from raw data and this process can involve multi methods that are applied sequentially. The researcher can employ manual data analysis or use statistical software to carry out descriptive statistics such as measures of central tendency and measures of association (correlation).

IBM SPSS Statistics for Windows was used for data analysis of the sampled quantitative data. IBM SPSS for Windows enables the researcher to analyse quantitative data without having to learn the underlying formulas for each descriptive statistic (Bryman, 2012).

3.3.6 Description of the research respondents

The number of responses received from the survey totalled one hundred and six. The demographics of the respondents is shown below,

3.3.6.1 Gender

The data shows that 66 (62,26%) of the respondents were males with 39 (36,79%) females and a single (0,94%) respondent preferring not to state their gender. The large number of male respondents can be fully explained as the survey was sent out to a large number comprised of more females than males.

3.3.6.2 Race

A high number of respondents were of African descent with 90 (84,91%) responses received, followed by 6 (5,66%) Whites and 6 (5,66%) Indian/Asians with only 4 (3,77%) members of the coloured community. The large number of respondents from the African community could be attributed to the researcher being also of African descent, however this cannot be conclusively attributed to that.

3.3.6.3 Age

The highest number of respondents was within the 35-44 age group with 54 (50,94%) responses followed by the 45 and above with 32 responses (30,19%). 19 (17,92%) of the respondents were within the age range of 25 to 34 with only one respondent being between the ages of 18 to 24.

3.3.6.4 Education

The table shows the level of education of the respondents with the highest number having a postgraduate degree. The high number of respondents with a postgraduate degree is aligned to the sample that was selected, this being the MBA cohort of the researcher.

Education Level	Number	Percentage
Postgraduate Degree	54	50,94%
Undergraduate Degree	28	26.42%
Diploma or Certificate	20	18,78%
Grade 12 and below	4	3,77%

Table 3: Respondents level of education

3.3.6.5 Employment Status

The table below shows the employment status of the respondents with the highest number being in full-time employment.

Employment Status	Number	Percentage
Self-employed	16	15,09%
Full-time employed	84	79,25%
Part-time employed	1	0,94%
Unemployed	4	3,77%
Student	1	0,94%

Table 4: Respondents employment status

3.3.6.6 Income Level

The table shows the income levels of the respondents with the highest number earning above R30,000 per month.

Income	Number	Percentage
R30,001 and above	74	69,81%
R20,001 – R30,000	16	15,09%
R10,001 – R20,000	9	8,49%
R10,000 and less	7	6,60%

Table 5: Respondents income levels

3.3.6.7 Respondent location

The table below shows the metro where each of the respondents is located, as one of the delimitations of the study is that only Gauteng retail fuel sites are included.

Metro	Number	Percentage
City of Johannesburg	34	37,36%
Ekurhuleni	32	35,16%
City of Tshwane	11	12,09%
Sedibeng District	7	7,69%
West Rand District	3	3,30%
Others	4	4,40%

Table 6: Respondent location

3.3.6.8 Loyalty Programme membership

The table below shows membership to a loyalty programme by the respondents with a high percentage subscribing to these programmes.

Loyalty programme membership	Number	Percentage
Yes	87	82,08%
No	19	17,92%

Table 7: Loyalty programme membership

3.4 Research strengthens—reliability and validity measures applied

"Reliability is concerned with the question of whether the results of a study are repeatable" (Bryman, 2012).

The quantitative researcher will be concerned that if another researcher were to repeat the same study, the result should not fluctuate when compared to the original study. The fluctuation of the results would entail that the selected measure is unreliable. The researcher ensured research reliability by minimising errors on the data collection instrument by ensuring that the survey questions and instructions are clear. The self-completed survey was sent to participants via e-mail to minimise sampling individuals who do not have the required knowledge of loyalty programmes.

Literature on validity defines it as, measuring what you need to have measured. "Validity is concerned with the integrity of the conclusions that are generated from a piece of research" (Bryman, 2012). Bryman (2012), posits that there are four main types for validating research, these being measurement validity, internal validity, external validity, and ecological validity for a quantitative research strategy.

3.5 Research weaknesses—technical and administrative limitations

One of the major limitations of a questionnaire in a quantitative research strategy is the level of understanding of the research questions by the respondents (Leedy & Ormrod, 2016). The reading and understanding or lack of understanding of the questions will either

positively or negatively influence their responses. The other limitation with a questionnaire is the low return rate from the selected respondents. A questionnaire was sent out by e-mail with several respondents electing to complete at a later stage or completely forgetting to complete and return the questionnaire.

4 PRESENTATION OF RESEARCH RESULTS

This chapter presents and discusses a summary of the findings obtained through empirical investigation. The respondent's feedback to the posed research questions in the self-completion questionnaire is presented and compared against similar studies which were interrogated in Chapter 2. The chapter will also present the statistical analysis of the data collected through the research questionnaire. The tool used for the statistical analysis of the data is Statistical Package for the Social Sciences (SPSS 27).

4.1 Prevalence of loyalty programme membership by consumers within the fuel retail sector in Gauteng

This section presents the empirical results to determine the prevalence of loyalty programme membership by consumers within the retail fuel industry in Gauteng, as well as the comparison to similar studies. Broadly, the researcher presents the descriptive statistics (Section 4.1.1.1) followed by the statistical hypothesis testing (Section 4.1.1.2) and lastly a comparison of the empirical results with other similar studies (Section 4.1.2).

4.1.1 Presentation of the empirical results

The table below (Table 8) shows that of the 106 respondents, 82,08 percent were members of a loyalty programme linked to a major oil company. The remaining 17,92 percent were respondents who were not members of a loyalty programme and those that did not fully complete the survey. Also, important to note is that the majority are members to more than one loyalty programme as shown in Table 9, with 73,63 percent being holders of more than one loyalty programme.

Loyalty programme membership	Number	Percentage
Yes	87	82,08%
No	19	17,92%

Table 8: Loyalty programme membership

Loyalty programme membership	Number	Percentage
Single programme	24	26,37%
More than one programme	67	73,63%

Table 9: Number of memberships per member

4.1.1.1 Descriptive Statistics

4.1.1.2 Statistical Hypothesis Testing

A correlation test was conducted to determine if there was any significant relationship between the prevalence of loyalty programmes in the fuel retail industry and business profitability of the oil company. The following correlation results are presented with the correlation coefficient being very weak between the prevalence of loyalty programmes and business profitability. The significance level of 0.028 is well below 0.05, indicating that the relationship is significant.

Correlations			
		Business Profitability	Loyalty Programme Prevalence
Business Profitability	Pearson Correlation	1	0.236
	Significance		0.028
	N	87	87

Table 10: Correlation testing of hypothesis 1

4.1.2 Comparison of the results to other similar studies

The high membership rates within the fuel retail industry in Gauteng is comparable to other studies with one of them having found that 92 percent of the United Kingdom (UK) consumers participated in loyalty programmes (Bijmolt et al., 2010), although this study was conducted in the developed world. Also, Meyer-Waarden (2015) reported that more than 90 percent of European and United States (US) shoppers owned at least one loyalty card.

4.2 Consideration of loyalty programme membership by consumers when required to re-fuel vehicles

This section presents the empirical results to determine if consideration to a loyalty programme membership is taken when consumers require refuelling of their vehicles, as well as the comparison to similar studies. Broadly, the researcher presents the descriptive statistics (Section 4.2.1.1) followed by the statistical hypothesis testing (Section 4.2.1.2) and lastly a comparison of the empirical results with other similar studies (Section 4.2.2).

4.2.1 Presentation of the empirical results

The results presented in this section are the measurement items of each construct to determine the frequency within the Likert scale from strongly disagree to strongly agree from the respondents.

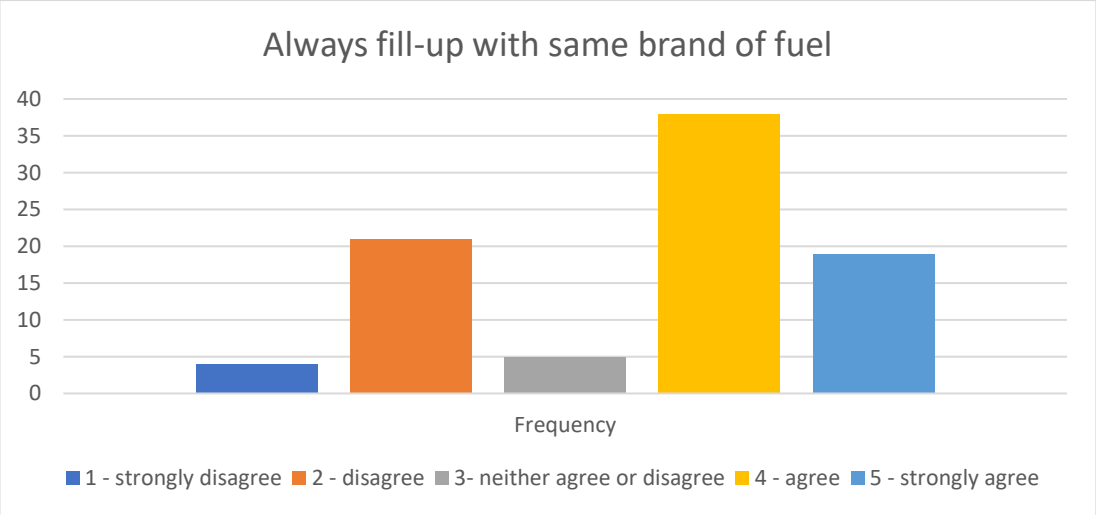

Figure 1: Measurement item – Always fill-up with same brand of fuel

It can be observed in Figure 1 above that 43,68 percent (Agree) of the respondents always fill-up with the same brand when required to refuel their vehicles with 21,84 percent (Strongly Agree) strongly agreeing to same. 24,14 percent (Disagree) of respondents disagreed with always fill-up with the same brand when required to refuel.

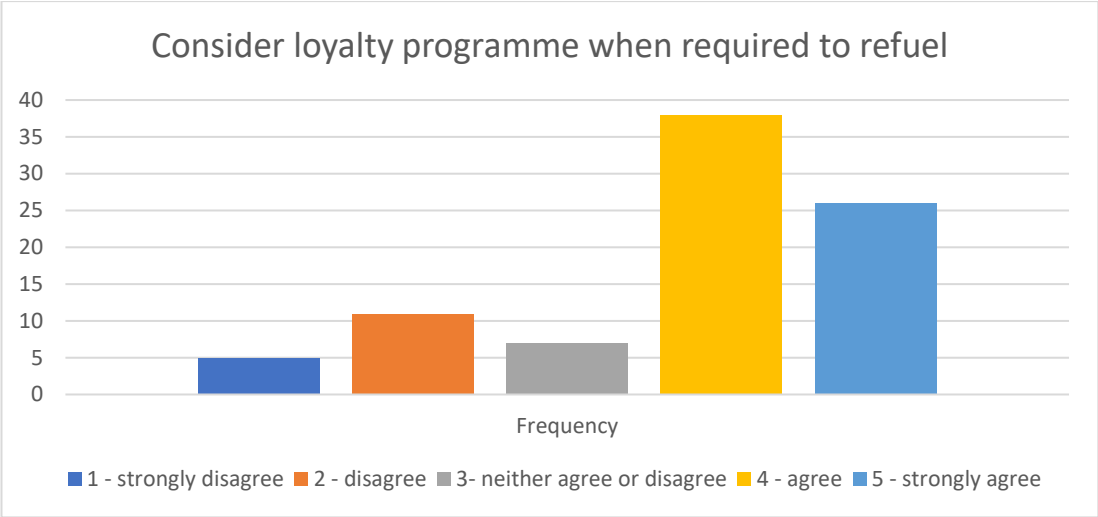

Figure 2: Consider loyalty programme when required to refuel

It can be observed in Figure 2 above that 43,68 percent (Agree) of the respondents do take their loyalty programme into consideration when required to refuel their vehicles with 29,89 percent strongly agreeing. A small number of respondents strongly disagreed with taking into consideration their membership when required to refuel.

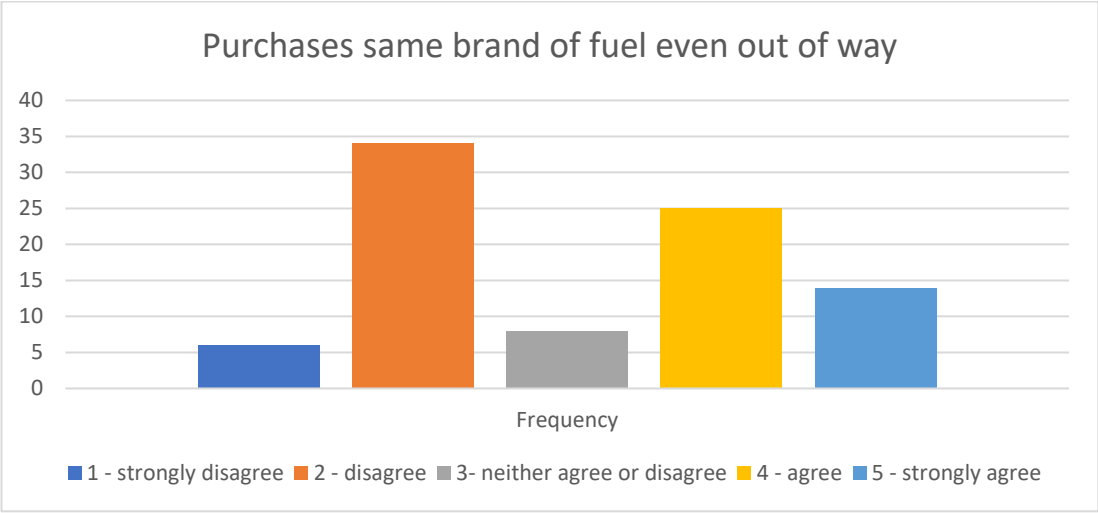

Figure 3: Purchases same brand of fuel even if out of way

It can be observed in Figure 3 above that 39,08 percent will not go out of their way to find the loyalty partner site when out of their way when required to refuel their vehicles with 28,74 percent agreeing to look for a partner site.

4.2.1.1 Descriptive Statistics

Figure 1 indicates that the majority of the responses are at scale of 4(Agree) with the plot skewed to the right if it were to be drawn over the histogram. A scale mean of 3.54 was computed with a standard deviation of 1.20. **Figure 2** indicates that the majority of the responses are at scale of 4(Agree) and 5 (Strongly Agree) with the plot skewed to the right. The scale mean is computed at 3.79 with a standard deviation of 1.17. **Figure 3** indicates that the majority of the responses are dispersed between those that agree and those that do not agree. The calculated mean is computed at 3.08 with a standard deviation of 1.26.

4.2.1.2 Statistical Hypothesis Testing

A correlation test was conducted to determine if there was any significant relationship between the consideration of loyalty programme when required to refuel in the fuel retail industry and business profitability of the oil company. The following correlation results are presented with the correlation coefficient being weak between the consideration of loyalty programme when required to refuel and business profitability. The significance level of 0.001 is well below 0.05, indicating that the relationship is significant.

Correlations			
		Business Profitability	Consideration of loyalty programme when required to refuel
Business Profitability	Pearson Correlation	1	0.468
	Significance		0.001
	N	87	87

Table 11: Correlation testing of hypothesis 2

4.2.2 Comparison of the results to other similar studies

The empirical results show that consumers do take into consideration their loyalty programme when required to refuel their vehicles and their loyalty to a particular brand of fuel company. This is consistent with the results of a study by Shongwe (2012). However, the consideration of the loyalty programme was ignored when the loyalty programme partner fuel retail site is not in the vicinity of the consumer.

4.3 Purchase of goods at the convenience store when at the retail fuel site for refuelling

This section presents the empirical results to determine if consumers also engaged in cross-buying when refuelling their vehicles and if there is a positive correlation with business profitability, as well as comparison to similar studies. Broadly, the researcher presents the descriptive statistics (Section 4.3.1.1) followed by the statistical hypothesis testing (Section 4.3.1.2) and lastly a comparison of the empirical results with other similar studies (Section 4.3.2).

4.3.1 Presentation of the empirical results

The results presented in this section are the measurement items of the construct to determine the frequency within the Likert scale from strongly disagree to strongly agree from the respondents.

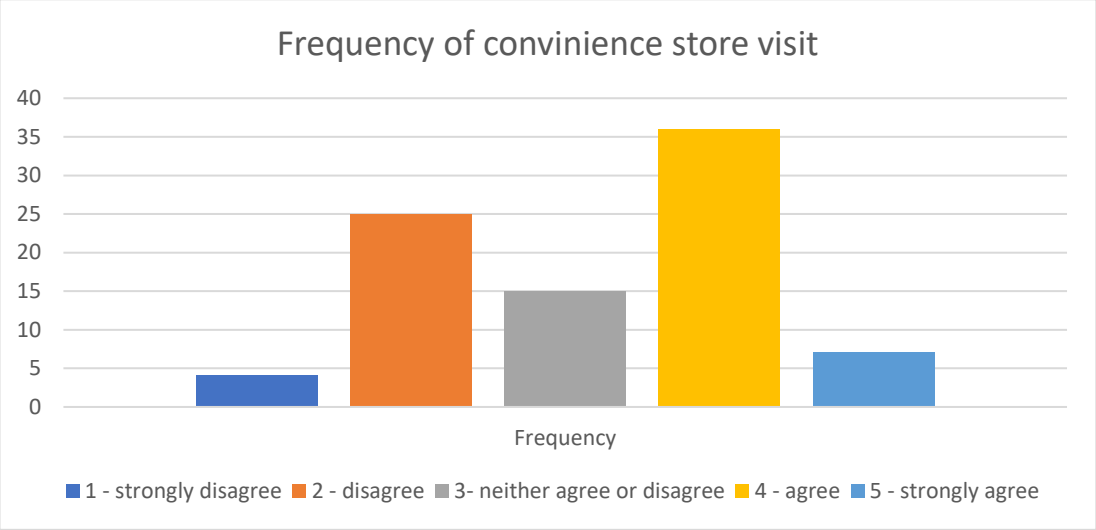

Figure 4: Frequency of convenience store visit

It can be observed in Figure 4 above that 41,38 percent of the respondents visit the retail fuel site convenience store when required to refuel their vehicles with 28,74 percent indicating that they do not visit the convenience store while onsite. A sizable number (17,24%) of respondents neither agreed nor disagreed to visiting the convenience store while onsite to refuel their vehicles.

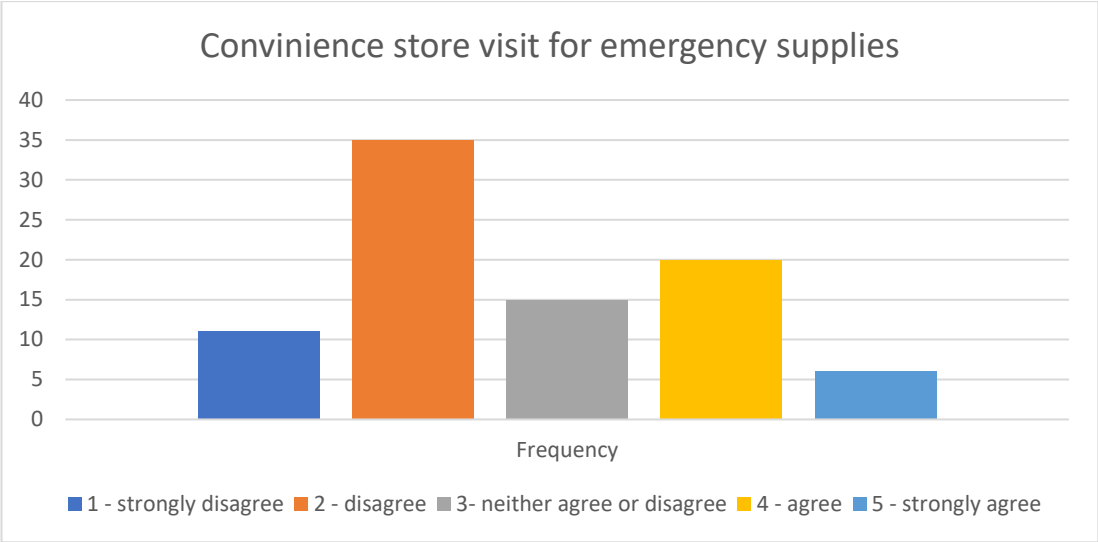

Figure 5: Convenience store visit for emergency supplies

It can be observed in Figure 5 above that 40,23 percent of the respondents do not visit the retail fuel site convenience store when requiring to refuel their vehicles with 22,99 percent indicating that they do visit the convenience store while onsite.

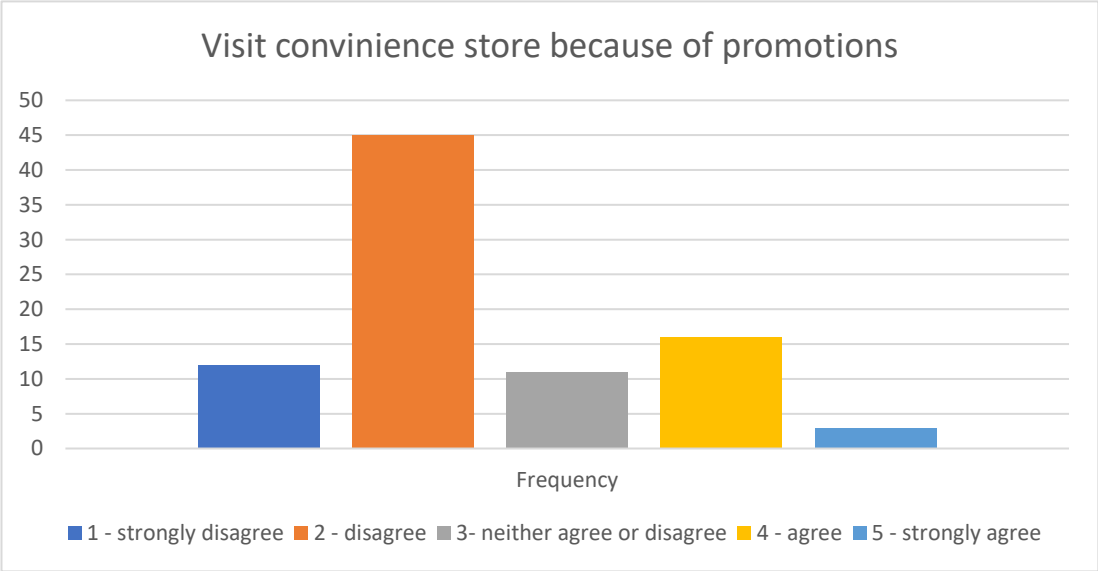

Figure 6: Visit convenience store because of promotions

It can be observed in Figure 6 above that 51,72 percent of the respondents do not visit the retail fuel site convenience store even when there are ongoing promotions.

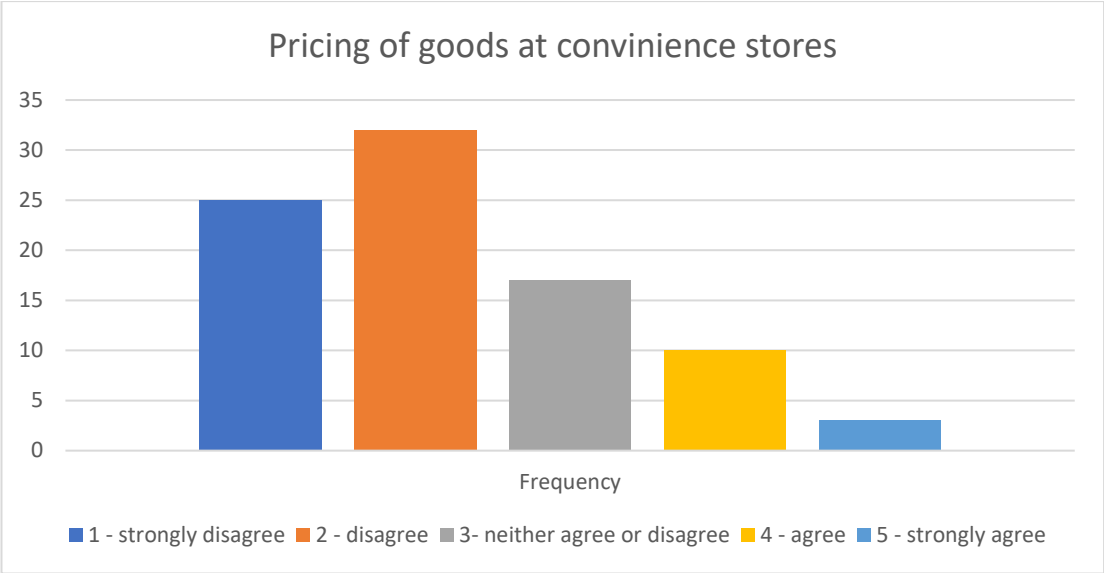

Figure 7: Pricing of goods at convenience stores

It can be observed in Figure 7 above that 36,78 percent of the respondents do not believe the pricing of goods is not fairly priced followed by 28,74 who also strongly disagreed.

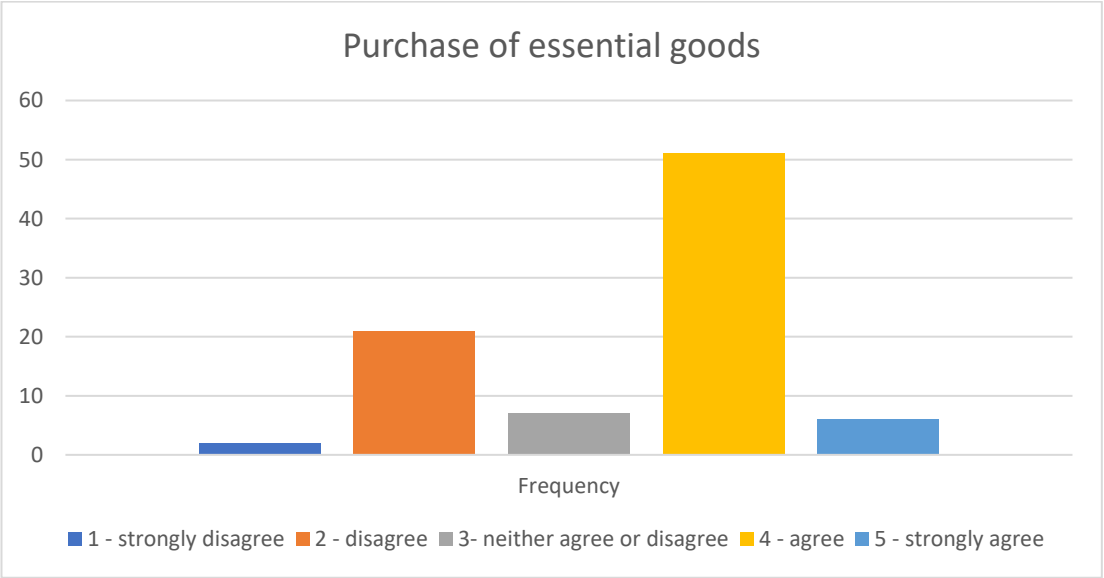

Figure 8: Purchase of essential goods

It can be observed in Figure 8 above that 58,62 percent of the respondents visit the retail fuel site convenience store to purchase everyday essential goods.

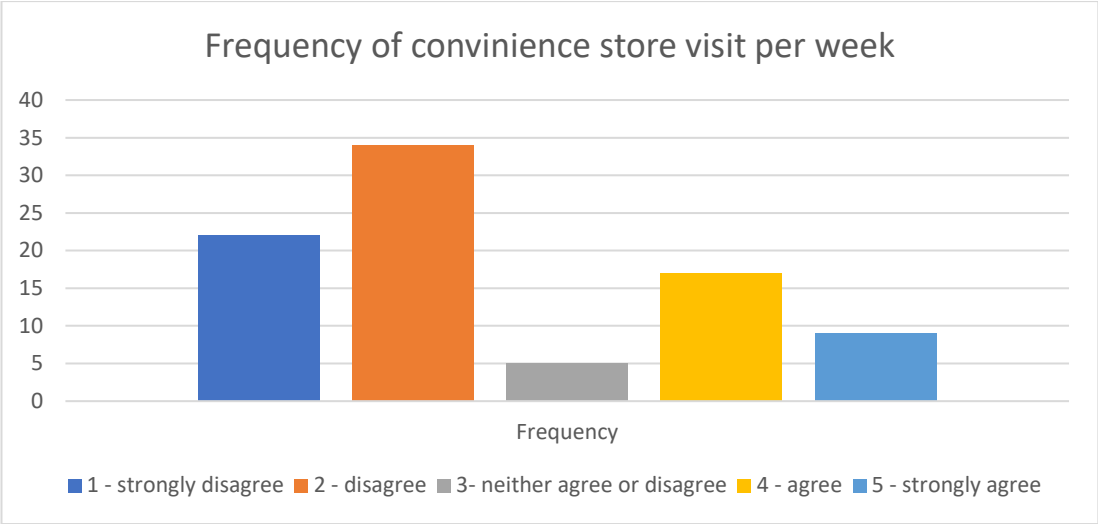

Figure 9: Frequency of convenience store visit per week

It can be observed in Figure 9 above that highest number of responses at 39,08 percent indicated they do not visit the convenience store more than once per week followed closely by 25,29 percent who strongly disagreed to visiting the convenience store more than once per week.

4.3.1.1 Descriptive Statistics

Figure 4 indicates that the majority of the responses agree to visit the convenience store while onsite with the mean computed at 3.20 and a standard deviation of 1.08. **Figure 5** indicates that the majority of the responses are at scale of midpoint 2 with the plot skewed to the left. The mean was computed at 2.71 with a standard deviation of 1.15. **Figure 6** indicates that the majority of the responses are at scale of midpoint 2 with the plot skewed to the left. The mean was computed at 2.46 with a standard deviation of 1.05. **Figure 7** indicates that the majority of the responses are at scale of midpoint 2 (disagree) with the plot skewed to the left. The mean was computed at 2.24 with a standard deviation of 1.09. **Figure 8** indicates that the majority of the responses are at scale of 4 (Agree) with the plot skewed to the right. The mean was computed at 3.44 with a standard deviation of 1.00. **Figure 9** indicates that the majority of the responses disagreed with visiting the convenience store more than once per week with the plot skewed to the left. The mean was computed at 2.51 with a standard deviation of 1.33.

4.3.1.2 Statistical Hypothesis Testing

A correlation test was conducted to determine if there was any significant relationship between consumer cross-buying at the convenience store when requiring refuelling of their vehicles and business profitability of the oil company. The following correlation results are presented with the correlation coefficient being very weak between consumer cross-buying at the convenience store and business profitability. The significance level of 0.493 is well above 0.05, indicating that the relationship is insignificant.

Correlations			
		Business Profitability	Consumer cross-buying
Business Profitability	Pearson Correlation	1	0.075
	Significance		0.493
	N	87	87

Table 12: Correlation testing of hypothesis 3

4.3.2 Comparison of the results to other similar studies

The findings of the study differ from those of Sartorius, Eitzen & Hart (2007), whose results indicated that convenience stores were critical to attracting customers to the fuel retail site. The authors reported that the presence of a convenience store attracted customers who would also proceed to purchase fuel.

4.4 Sales volumes increase due to introduction of loyalty programme at Gauteng retail fuel sites

This section presents the empirical results to determine if sites linked to a loyalty programme experienced an increase in sales volumes and by inference achieved improved profitability, as well as the comparison to similar studies. Broadly, the researcher presents the descriptive statistics (Section 4.4.1.1) followed by the statistical hypothesis testing (Section 4.4.1.2) and lastly a comparison of the empirical results with other similar studies (Section 4.4.2).

4.4.1 Presentation of the empirical results

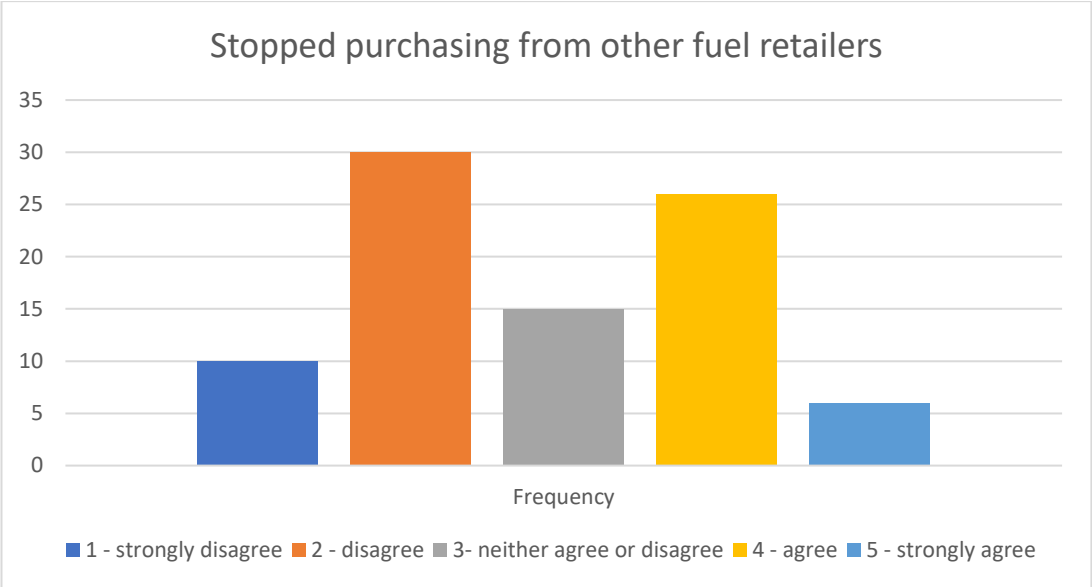

Figure 10: Stopped purchasing from other fuel retailers

It can be observed in Figure 10 above that 34,48 percent of the respondents never stopped(disagree) purchasing fuel from non-loyalty programme members when required to refuel their vehicles, with 17,24 percent neither agreeing nor disagreeing to have stopped purchasing from other oil companies. However, 29,89 percent indicated to have stopped purchasing fuel from the non-loyalty programme members.

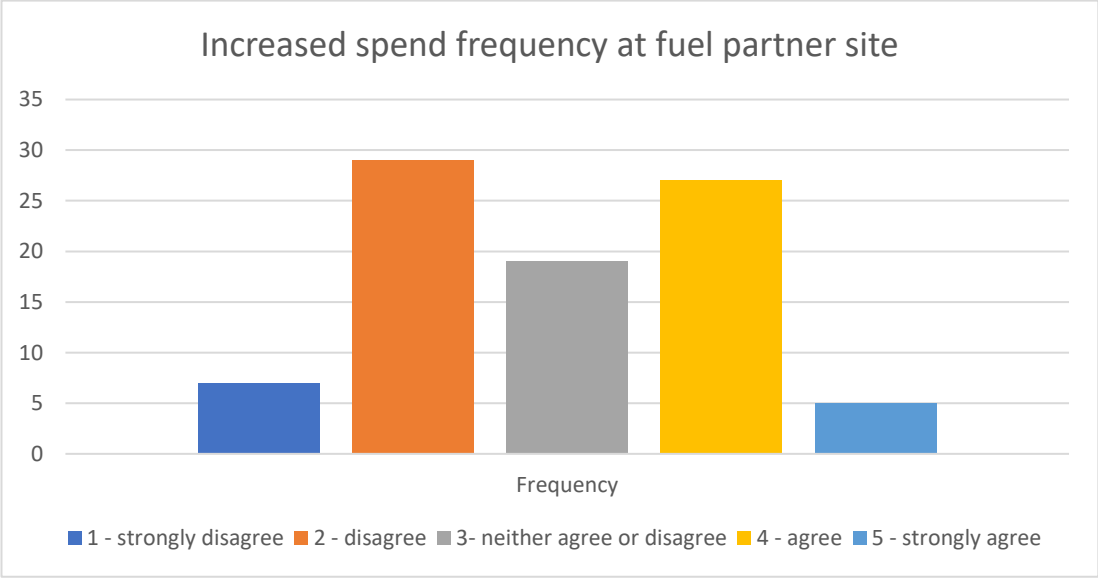

Figure 11: Increased spend frequency at fuel partner site

It can be observed in Figure 11 above that 33,33% percent of the respondents never increased their spending frequency of purchasing from loyalty programme members, while 31,03 percent increased their spending frequency.

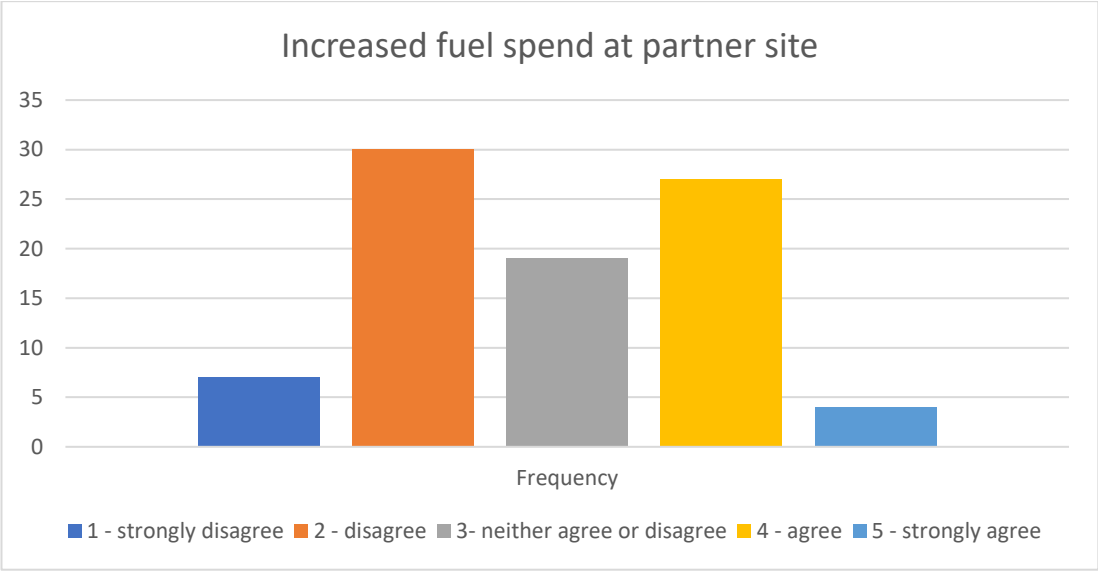

Figure 12: Increased fuel spend at partner site

It can be observed in Figure 12 above that 34,48 percent of the respondents never increased(disagree) their fuel spend at the loyalty programme member site when required to refuel their vehicles, while 31,03 percent increased their fuel spend at the partner site.

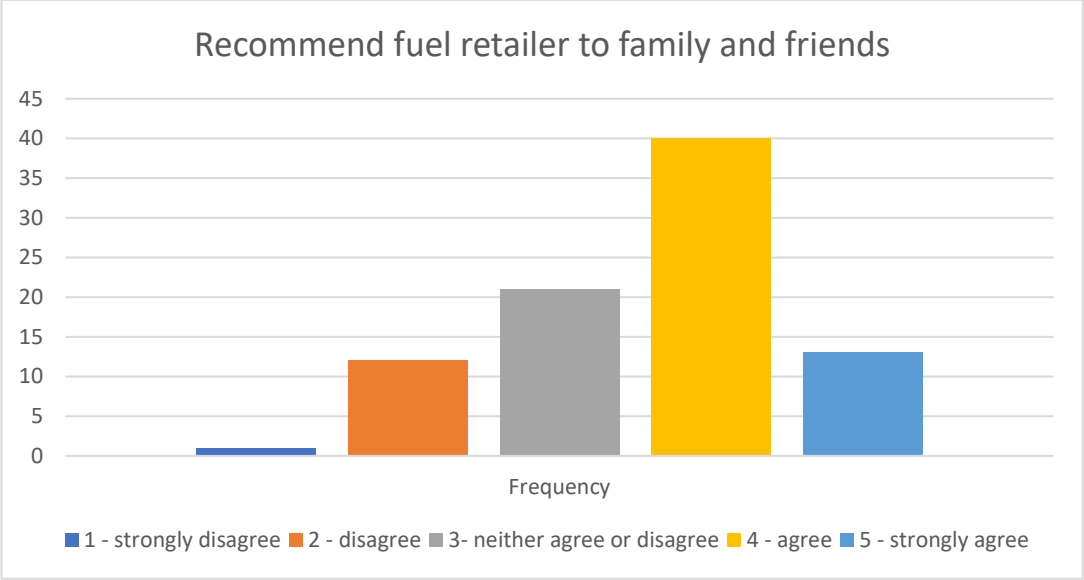

Figure 13: Recommend fuel retailer to family and friends

It can be observed in Figure 13 above that 45,98 percent of the respondents would recommend their loyalty programme fuel retailer to family and friends. However, 24,14 percent of the respondents neither agreed nor disagreed.

4.4.1.1 Descriptive Statistics

Figure 10 indicates that the largest responses are at a scale of disagree resulting in the plot being skewed to the left. The mean was computed at 2.86 with a standard deviation of 1.17. **Figure 11** indicates that the majority of the responses are at scale of disagree with the plot skewed to the left. The mean was computed at 2.93 with a standard deviation of 1.09. **Figure 12** indicates that the majority of the responses are at scale of 2 with the plot skewed slightly to the left. The mean was computed at 2.90 with a standard deviation of 1.07. **Figure 13** indicates that the majority of the responses are at scale of 4(agree) with the plot skewed to the right. The mean was computed at 3.60 with a standard deviation of 0.94.

4.4.1.2 Statistical Hypothesis Testing

A correlation test was conducted to determine if there was any significant relationship between business profitability of the oil company and consumer increased frequency of spending at the fuel retail site. The following correlation results are presented with the correlation coefficient being average between consumer increased frequency of spend at the fuel retail site and business profitability. The significance level of 0.001 is well below 0.05, indicating that the relationship is significant.

Correlations			
		Business Profitability	Increased frequency of spend
Business Profitability	Pearson Correlation	1	0.408
	Significance		0.001
	N	87	87

Table 13: Correlation testing of hypothesis 4

4.4.2 Comparison of the results to other similar studies

The outcome of a study carried out by Mgiba and Madela (2020) showed that "customers' perceptions of the rewards offered by loyalty programmes have direct positive effects on customer satisfaction, which positively influence their loyalty to the fuel brand. In

addition, their perceptions also have a direct effect on their loyalty to the brand. Their loyalty to the brand ultimately positively influences their intention to repurchase from the same brand". (Mgiba & Madela, 2020). The findings of the outcomes of the study correlates well with the studies carried out in South Africa by the authors with loyalty programmes contributing to business profitability.

5 DISCUSSION OF RESEARCH FINDINGS

5.1 Introduction

This chapter presents an interpretation of the empirical results presented in Chapter 4 and their analysis. The analysis was be done by comparing the empirical findings to the literature review on loyalty programmes and their role in the regulated sale of fuels in the fuel retail industry in Gauteng. The section also highlights any similarities, differences and any new information which will contribute to the body of knowledge on loyalty programmes in developing countries as the existing model on loyalty programmes has been extensively tested in the first world. A summary of the analysis will conclude the section.

5.2 Prevalence of loyalty programme membership by consumers within the fuel retail sector in Gauteng

The research study's purpose was for the investigation of the role of loyalty programmes on fuel retail sites profitability in Gauteng and this was meant to be answered by the posed research questions. The findings presented in Chapter 4 are now discussed in detail. The first question posed to the respondents was meant to fully understand the prevalence of these programmes within the Gauteng fuel market. The Gauteng petrol market sold more than 4 billion litres of petrol annually between 2009 and 2018 (SAPIA Report, 2018).

The findings show that of the 106 respondents, 82.08 percent were members of a loyalty programme linked to an oil company. The high percentage of respondents who are members of a loyalty programme was not unexpected as all the banks in South Africa are currently partners to one or more of the oil companies. Capitec announced that it was going into a fuel loyalty programme partnership with Shell in February 2021. The partnership between the oil companies and banks in the South African context has meant that the programme can be rolled-out seamlessly to the end user as there's very little administrative requirements placed on the consumer. The banks handle all the administrative requirements with their existing clients being automatically enrolled on the programme by virtue of having the bank's issued credit card. This translates into consumers only having to swipe the bank issued card at the retail forecourt for the transaction to be captured on the banks systems and the client rewarded with loyalty

points. This also means end users can immediately start earning points provided they utilise the partner oil company for fuelling purposes.

The high membership rates within the fuel retail industry in Gauteng is comparable to other studies with one of then having found that 92 percent of the United Kingdom (UK) consumers participated in loyalty programmes (Bijmolt et al., 2010), although this study was conducted in the developed world. Meyer-Waarden (2015) reported that more than 90 percent of European and United States (US) shoppers owned at least one loyalty card and Lekhuleni and Wait reporting on a study in South Africa revealed that 90 percent of millennials that they surveyed belonged to at least one loyalty programme. The research findings concur and are similar to the study by KPMG (2016), thus confirming that there is a high prevalence of these programmes within the Gauteng fuel retail industry.

The findings also show that more than 73 percent of the respondents were members to more than one loyalty programme. This can be interpreted to be due to some of the programmes being owned by companies such as Discovery Insure which is an insurance service provider and later entering the banking industry. Discovery Insure has two oil companies as members of its loyalty programme, these being Shell and BP Southern Africa. Meyer-Waarden (2015) reported that the number of loyalty card memberships in the US alone exceeded 2.1 billion in 2010, while the population of the country was at 309 million (United States Census Bureau, 2020). The findings of the study concur with the United States data indicating that the Gauteng population is member to more than one loyalty programme which are spread across the retail industry.

The Statistical Analysis of the results indicates that there is a weak positive correlation between the large percentage of consumers who are members to a loyalty programme and the profitability of the oil company which is a member of the bank-initiated programme. This could be due to the large percentage of consumers being a member of more than one loyalty programme. The multiple subscriptions by consumers to several loyalty programmes could be resulting in the spreading of the fuel volumes across the oil companies linked to a loyalty programme instead of increasing the sales of one oil company.

Relationship marketing theory (RMT) has as its focus, the maximisation of the lifetime value of customers by the business. The high prevalence of loyalty programme membership by consumers within the fuel retail industry supported by the banks concurs with the latest developments in the fuel industry of partnering with other businesses to offer customers value in addition to the product offered.

5.3 Consideration of loyalty programme membership by consumers when required to refuel vehicles

An analysis of the findings of the study shows that loyalty programme members do take their membership into consideration when required to refuel their vehicles. The empirical findings also showed that the majority of consumers are members of more than one loyalty programme which would suggest that consumers spread their wallet spend based on the nearest fuel retail site which is linked to one of the loyalty programmes of which they are a member. The outcome of this action by consumers would mean that all the oil companies that are linked to a loyalty programme will experience an increase in the volumes of fuel sold. This would also mean that the major oil company with the most number of retail fuel stations would experience a sizable increase in the volume of petrol sold and hence an increase in profitability due to consumers taking their loyalty programmes into account when required to refuel. The inference to the increase in profitability is due to the use of the petrol volumes sold being used as a proxy for profitability.

A large percentage of consumers were also brand loyal when it came to the site that they utilised to refuel their vehicles. The brand awareness of consumers also came out strongly with a large number being prone to using the same brand of fuel when required to refuel their vehicle. The strong affinity for established fuel brands, the consumer's consideration of their loyalty programme and the large oil companies with their large footprint of fuel retail sites placed these oil companies at an advantage when it comes to sales and business profitability. The empirical findings are consistent with the results of a study conducted by Shongwe (2012), into brand loyalty amongst South African petrol consumers.

The weak positive correlation between the consideration of loyalty programmes by consumers and the profitability of the oil company could be explained by the large prevalence of the loyalty programmes in the industry with consumers spreading their

spend across oil companies linked to a loyalty programme. This is due to the large percentage of consumers being a member of more than one loyalty programme.

5.4 Purchase of goods at the convenience store when at the retail fuel site for refuelling

The analysis of the findings shows that more than 50 percent of the sampled consumers do not make cross-buying at the fuel retail site convenience store when refuelling their vehicles. The frequency of visits to the convenience store is very limited with most consumers only visiting the store for limited essential supplies. This is since most loyalty programmes only reward consumers for fuel purchases instead of general purchases at the convenience store. The fuel loyalty programmes operate by offering consumers a cashback based on the fuel spend over a set timeframe. The consumer is encouraged to make fuel purchases using the bank's issued credit card with the schemes offering cash back for all fuel purchases over the previous month or quarter. The prevalence of point of sales machines at the forecourt is also one of the contributors to the low visit into the convenience store as consumers can pay for the fuel without having to leave their vehicle.

Promotions which are intended to attract consumers into the retail convenience centre also showed to have no impact on increasing the foot traffic into the convenience store. This is primarily due to the pricing of general goods at convenience stores with pricing well above those of local stores or supermarket chains. The lack of point earning potential also contributes to the poor traffic to the convenience store. The findings of the study differed to those of Sartorius, Eitzen and Hart (2007), whose results indicated that convenience stores were critical to attracting customers to the fuel retail site. The difference could be related to the advent of the Covid-19 pandemic and the resultant requirement to minimise visiting stores and any areas where there could be several people within a limited amount of space.

Fuel retail sites make the bulk of their profit from the fuel sales with the dealer margin being the principal contributor at 221.6 cents per litre of petrol. The lack of traffic to the convenience store has limited impact on the profitability of the site. This is also supported by the extremely weak positive correlation between the purchase of goods at the convenience store and business profitability. The statistical significance of 0.493 is well above 0.05, indicating that there is no relationship between the measures.

5.5 Sales volumes increase due to introduction of loyalty programmes at Gauteng retail fuel sites

The empirical findings do support a marginal increase in fuel volumes sold by the sites linked to a loyalty programme. A low number of respondents (29,89 percent), reported to have stopped purchasing fuel from sites not linked to their loyalty programme. In the Gauteng market, 29,89 percent represents a potential change in petrol volumes of more than 1 billion litres of fuel. This is due to the consumer expecting to get the reward which is accrued when refuelling at the partner fuel sites. These consumers would lose the reward if they were to refuel at sites not linked to their programme. The findings also showed that most of the consumers did not increase their fuel spend and spend frequency at the retail fuel site. This is due to the nature of the fuel being only required when the level in the vehicle runs low. The South African petrol price is regulated, and the price is adjusted on the first Wednesday of every month with the majority of users increasing their spend prior to the price going up. The questionnaire was submitted to the respondents in a month where the price of petrol was decreasing, and this could explain the response by consumers of not increasing their petrol spend at the fuel retail site.

The reporting of the fuel volumes sold in South Africa per oil company is confidentially guarded with each oil company only submitting its data to the Department of Mineral Resources, who are responsible for collating and reporting the data per Magisterial District in the country. The collated data is then made available to the public on the DMRE's website with no indication of the volumes by each of the petrol stations.

The findings also showed that a large proportion of consumers were willing to recommend the loyalty programme partner to their friends and family. The recommendation of the loyalty programme member could be due to the consumer not being able to differentiate between the loyalty programme owner and the partners in the programme. Most of the loyalty programmes are owned and managed by the banks with a number of partners to enhance the value proposition of the programme. This could explain the difference in the high number of loyalty programme members of these schemes and yet the low increase in the fuel volumes sold by the retail sites.

Relationship marketing is focused on building long term and profitable relationships between the business and the consumers, and the introduction of loyalty programmes in

the fuel retail industry has been instrumental in the profitability of the major oil companies due to a number of factors which were not included in the study as this would have meant that the researcher would have had a broad scope to focus on.

6 SUMMARY, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

6.1 Summary

The study does confirm that there is a large uptake of loyalty programmes by South African consumers with more than 82 percent of the respondents being members of a loyalty programme and more than 73,63 percent being a member to more than one programme. The consideration by consumers of their loyalty programme when required to refuel their vehicles results in consumers who hold more than one loyalty programme membership spreading their fuel spend between the partner oil companies to maximise the points gains and in the process avoid using the non-loyalty programme sites.

The offering of points and cashbacks by the loyalty programme on fuel purchases results in the convenience store at the forecourt seeing less foot traffic and sites that are reliant on store sales are disadvantaged. The marketing campaigns of running promotions to increase foot traffic into the store were also found to also have no positive impact.

The introduction of these schemes has had an adverse effect on non-loyalty programme sites as the large uptake by members of the community has resulted in high numbers stopping to buy fuel from non-loyalty programme sites. This has been compounded by the effect that these members recommend these loyalty programmes to their immediate circle which in the long term means that sites not linked to these schemes will see a decrease in the fuel volumes being sold by their sites.

6.2 Conclusion

The analysis and interpretation of the empirical data would seem to support the claim initially raised by the Fuel Retailers Association (FRA) that the introduction of loyalty programmes in the fuel industry have impacted their members who only control 7 percent of the retail industry. The action of oil companies moving away from focusing on a transactional relationship to one where the focus is on building a long term profitable relationship has resulted in an unintended action which has had a negative impact on the independent fuel retailers who control only a small percentage of the fuel retail industry. The rewards offered to the consumers by the big oil companies for the exclusive use of

their retail sites have resulted in the shifting of the volumes sold in the sector away from the independent retailers to the majors who have a large dealer network within the Gauteng province.

6.3 Limitations

The nature of the fungibility of the petrol that each of the oil majors sell to the end consumer requires that each party safely guards its data about the fuel volumes sold per retail site resulting in challenges with fully understanding the role that loyalty programs play in the profitability of a retail site. The compilation of the data by the Department of Mineral Resources and Energy (DMRE) from the oil companies and publishing for interested parties is done per province and magisterial district and not per oil company. The data is also not broken down per fuel retail station to enable the exploitation of the role of loyalty programmes in the industry.

The advent of the Covid-19 pandemic in March 2020 potentially played a major role in the responses of the respondents as the majority had moved to working from home with limited travel due to the restriction imposed on the movement and gathering of people within South Africa. The respondents' responses would be greatly impacted as the South African fuel industry was greatly affected by the pandemic with the major oil companies experiencing sales volumes drop of more than 80 percent due to the lockdown introduced to curb the spread of the pandemic.

6.4 Recommendations

It is recommended that a study is carried out to fully understand how the reward programmes offered by the major oil companies and their partners reward the consumer as the retail price of petrol is regulated and discounting is not allowed by the Department of Mineral Resources and Energy (DMRE). The effect of consumers being members to more than one loyalty programme also presents an unknown which other researchers in the fuel industry could explore and its impact on the non-loyalty programme member sites.

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APPENDICES

Appendix 1.1: Data collection instrument(s)

The role of loyalty programmes on retail fuel site profitability in Gauteng

Section A: Demographics

This section is for the collection of the general information about the respondents. Please indicate your response by selecting the applicable answer.

A1: Please indicate your gender

Female (1)

Male (2)

Prefer not to say (3)

A2: Please indicate your race

Black African (1)

Coloured (2)

Indian or other Asian (3)

White (4)

A3: Please indicate your age group

18 to 24 (1)

25 to 34 (2)

35 to 44 (3)

45 and above (4)

A4: Please indicate your highest education level

Grade 12 and below (1)

Diploma or Certificate (2)

Undergraduate degree (3)

Postgraduate degree (4)

A5: Please indicate your employment status

Student (1)

Unemployed (2)

Part-time employed (3)

Full-time employed (4)

Self employed (5)

A6: Please indicate your income level

R10,000 and less (1)

R10,001 – R20,000 (2)

R20,001 – R30,000 (3)

R30,001 and above (4)

A7: Please indicate if you are a member of a loyalty program linked to a fuel brand

Yes (1)

No (2)

(Condition: If a respondent selects "NO" then they cannot continue with the survey. They get a message saying thank you for your participation.)

A8: Please indicate which loyalty programme linked to a fuel brand are you a member

FNB eBucks, partner to Engen	(1)
ABSA Rewards, partner to Sasol	(2)
Shell V+, Shell's own program	(3)
Standard Bank Ucount, partner to Caltex/Astron Energy	(4)
Pick n Pay SmartShopper, partner to BP	(5)
Dischem Rewards, partner to Total	(6)
Discovery Insure, partner to BP and Shell	(7)

(Respondents can select more than 1 option)

A9: Please indicate which city/metro are you a resident of

City of Johannesburg Metropolitan Municipality	(1)
Ekurhuleni Metropolitan Municipality	(2)
City of Tshwane Metropolitan Municipality	(3)
Sedibeng District Municipality	(4)
West Rand District Municipality	(5)
Other	(6)

Section B: Loyalty Programme Membership

Please indicate the extent to which you agree or disagree with each of the following statements by choosing a corresponding number in the 5-point scale below:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Please indicate to what extent you agree or disagree with each statement:

LP1: I like the loyalty programme more than other programmes	1	2	3	4	5
LP2: I have a strong preference for my loyalty programme	1	2	3	4	5
LP3: The loyalty programme rewards have a high cash value	1	2	3	4	5
LP4: The rewards offered by the loyalty programme are what I want	1	2	3	4	5
LP5: I have a strong preference for loyalty programmes	1	2	3	4	4
LP6: The loyalty programme (scheme) is easy to use	1	2	3	4	5

Section C: Do take consideration or do not take consideration (Customer Loyalty)

Please indicate to what extent you agree or disagree with each statement:

DC1: I always fill with the same brand of fuel	1	2	3	4	5
DC2: Membership to a loyalty programme influences the choice of fuel site I use	1	2	3	4	5
DC3: I buy the same brand of fuel even if in a hurry and the retail fuel site is out of my way	1	2	3	4	5
DC4: The choice of retail fuel site is influenced by my loyalty programme	1	2	3	4	5

Section D: Cross-selling

Please indicate to what extent you agree or disagree with each statement:

CS1: When visiting a fuel retail site, I usually go into the convenience shop	1	2	3	4	5
CS2: When visiting the convenience store, I use it to buy emergency supplies such as electricity and airtime	1	2	3	4	5
CS3: I visit the convenience store because of promotions	1	2	3	4	5
CS4: When thinking of prices at the convenience store, most of the goods are sold at a fair price	1	2	3	4	5
CS5: When visiting the convenience store, I buy goods such as bread, milk, cigarettes and drinks	1	2	3	4	5
CS6: I visit the convenience shop more than once per week	1	2	3	4	5

Section E: Effect on performance of business

Please indicate to what extent you agree or disagree with each statement:

BP1: I stopped purchasing from other fuel retail sites	1	2	3	4	5
BP2: I Increased my purchase frequency at the fuel retail site	1	2	3	4	5
BP3: I increased my purchase amounts at the fuel	1	2	3	4	5
BP4: I would recommend this fuel retailer to the others (family and friends)	1	2	3	4	5

The End

Appendix 2.1: One-page bio of the researcher including declaration of interest in the research and funders, if any

Names : Muzi Meshack Mtungwa

Nationality : South African

Qualifications : Master in Business Administration (MBA) – in progress

Postgraduate Diploma in Business Administration (PDBA - 2019)

Management Advancement Programme (MAP - 2011)

B-Tech Chemical Engineering (2004)

ND Chemical Engineering (1999)

Career Summary

Depot Operations Manager:

- Accountable for two terminals with Terminal Managers as direct reports:
  - Pretoria West – Black Products
  - Alrode – White Products
- Management of relationship with Joint Venture partner (JV – 50/50 Sasol and BPSA)
- Management of the Distribution Requirements Planning teams:
  - DRP Coastal – responsible for inventory availability at Other Oil Companies (OOC) facilities
  - DRP Inland – responsible for inventory availability at inland terminal and scheduling of final product movement out of Secunda and Natref.
- Responsible for the management of Maintenance Team which looks after 2 Sasol owned and operated sites

Appendix 2.2: Ethics documentation

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/BA591258/506

This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	Loyalty programmes and retail fuel site profitability in Gauteng
Investigator / Researcher	Mr Muzi Mtungwa
Nature of Project	MBA (Research Article)
Decision of the Committee	Approved unconditionally
Issue Date of Certificate	2021-03-10
Expiry date	Date of submission of the project report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 📱 +27 82 880 4531 ✉ Anthony.Stacey@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signed by:Muzi Mtungwa
Signed at:2021-06-30 21:43:30 +02:00
Reason:I approve this document

Signature

30/06/21

Date:

Appendix 3.1: Dully filled in data collection instrument(s)

Data stored on the researchers Microsoft Password Protected Cloud Account.

Appendix 3.2: Turnitin Report

Muzi Mtungwa_ARP Submission_30 June 2021.docx

ORIGINALITY REPORT

5%	5%	2%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

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2	researchportal.port.ac.uk Internet Source	1%
3	journals.co.za Internet Source	1%
4	www.tandfonline.com Internet Source	1%

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