
South African fuel industry, Customer perceptions and satisfaction, and their impact on customer loyalty and repurchase intention

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FM MGIBA*

University of the Witwatersrand, School of Business Sciences, Marketing division

Freddy.mgiba@wits.ac.za

* corresponding author

ORCID NR: <https://orcid.org/0000-0002-4648-3218>

K MADELA

University of the Witwatersrand, Marketing

kay.madela@astronenergy.com

ABSTRACT

Loyalty programmes are widely used in many industries, including the fuel industry in South Africa. The relationship between loyalty programmes, customers' value and satisfaction perceptions, and customers' ultimate behavioural intentions within the fuel industry have not received much academic attention. This study undertook to research South African students' perceptions of: the value of rewards for loyalty membership, how their perceptions affect their satisfaction with the fuel brand, how their satisfaction affect their loyalty to the fuel brand, and how their perceptions and loyalty impact their intention to continue buying from the same brand. Study participants were selected by using convenience sampling method. About 316 senior students from a South African university in Gauteng participated in the study. The study used a quantitative methodology approach, and adopted Structural Equation Modelling for data analysis. The SPSS 25 and AMOS 25 statistical packages were used for data analysis. The outcome of the 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. Building from the underpinning theories (Social exchange theory and Equity theory), the study proposes a theoretical model whose usefulness is highlighted under managerial and academic implications subsection of the study.

Key phrases

Customer loyalty; loyalty programmes; perceived value and repeat purchase intention

1. INTRODUCTION

Loyalty programmes (LPs) are not a new concept in business (Bietsch & Egrie 2018). American Airlines coined the first loyalty programme in 1981 (McCall & McMahon 2019). Organisations engage in loyalty programmes for different reasons. Some of those reasons are to stay in communication with customers, to stay fresh in a consumer's mind when customers are ready to purchase their next product or service (Kotler & Keller 2012), to successfully attract new business, to retain existing customers (Engineering news 2016), and to collect honest and valuable feedback (Bietsch & Egrie 2018). The South African petroleum industry has also adopted the customer loyalty programme strategy (Evanschitzky, Ramaseshan, Woisetschläger, Richelsen Blut & Backhaus 2012; Kasai & Chauke 2017; Liu 2007). One of the features of fuel is its homogeneous nature (Dewenter & Heimeshoff 2012), and this can make it difficult for suppliers to differentiate themselves from their competition. Petroleum companies are therefore moving away from product orientation strategy to a more customer-orientated strategy (Reinartz, Kraft & Hoyer 2004). In the South African context, the major fuel brands are Caltex, BP, Total, Sasol, and Shell, and the market is highly competitive.

Given the competitive nature of the petroleum industry, companies are continuously trying to discover new ways to help them acquire and retain loyal customers, and this has led to the birth of loyalty programmes (Kreis & Mafael 2014; Omar, Aziz, Alam & Nazri 2011). These brands now offer loyalty programmes in partnership with other business entities such as banks, medical aid companies, and retail businesses. Through this strategy, they aim to achieve higher financial performance (Aktepe, Ersoz & Toklu 2015), to build, and to maintain devoted customers that have the potential to become profitable in the long-run (Ofek 2002). Other benefits that companies aim to gain are increased patronage and revenue (Demoulin & Zidda 2008; Gremler & Brown 1998), improved customer satisfaction (Rowley 2000; Taylor & Neslin 2005), decreased marketing costs and increased market penetration (Rundle-Thiele & Bennett 2001). One of the motives for this move is the belief that it is cheaper to retain current customers by enhancing customer satisfaction than to incur the costs of acquiring new ones (McIlroy & Barnett 2000). Loyalty programmes include reward cards, gifts, and tiered service levels (Evanschitzky *et al.* 2012). LPs are able to differentiate a brand from its competitors (Yi & Jeon 2003). They allow suppliers to have access to customer information and their purchasing behaviour (Smith 2008). LPs are a pivotal part of customer relationship management (CRM) (Jain & Singhal 2012), which aims to deliver customer value on a long-term basis (Kotler & Keller 2015). LPs and CRM make use of customer information during every encounter with the customer to tailor extraordinary

customer service (Kotler & Keller 2012). Duffy (2003) extends the implications of LPs by stating that it is not only a CRM concept but also a customer retention marketing. According to Duffy (2003), LPs result in customer retention and business profitability. The increasing use, the important role LPs play in many businesses in South Africa (SA), and the lack of empirical research directed at the fuel industry motivated this study.

2. PROBLEM, PURPOSE STATEMENT, OBJECTIVES AND JUSTIFICATION OF THE STUDY

A significant amount of research into LPs was done in the United States of America and in Europe (Hwang & Choi 2019; Musa & Omar 2009). In a statement by Kasai and Chauke (2017) globally, there have been contradicting views on the effectiveness and impact of LPs on customers' purchasing behaviour. Fournier, Dobscha and Mick (1998) boldly state that anecdotal evidence suggests a negative reaction by customers to LPs. Dowling (2002) and Shugan (2005) argue that LPs are expensive, ineffective, and do not lead to customer loyalty. Evanschitzky *et al.* (2012), argue that LPs can actually lead to unintended consequences such as loyalty to the programme, and not result in a favorable attitude towards the company implementing them. Grayson and Ambler (1999) boldly state that LPs might be achieving the opposite of what they were originally intended to achieve. Some of the reasons might be customers' privacy concerns (Evans 1999; Hansen 2000), negative consequences of limiting their options, which might turn out to be some of the major causes of LPs failures (Wendlandt & Schrader 2007).

On the other hand, other scholars suggest that LPs increase patronage (Lewis 2004; Verhoef 2003), and speed up customers' loyalty lifecycle (Yi & Jeon 2003). In another study, Shongwe (2012) states that there were few LPs in the SA petroleum industry. Further, LP studies have mainly concentrated on retail stores (Kasai & Chauke 2017). Mwenda and Oloko (2017) studied the behaviour and the determinants of motorists' choice of petrol stations. This study did not consider the use of LPs in the industry. There is generally, a lack of empirical evidence that demonstrates a direct relationship between LP membership, attitudinal, and behavioural loyalty (McCall & McMahon 2019). The present study responds to the debates highlighted above, and the lack of coherent studies that concentrate on LPs for petrol stations in the SA context. The study aims to further enhance the body of knowledge on the LPs and relationship marketing, assist brand managers to understand how they can repackage and redesign their loyalty programmes, and to provide strategic guidelines to managers who make decisions on how to position and to differentiate their fuel brand using LPs. The findings of the study will expand academic literature by enriching the

understanding of LPs and opening up further inquiry possibilities for LPs' introduction in other industries in SA. This will further stimulate academic debates on the conceptualisation of LPs. The variables of interest are LPs satisfaction in South Africa (SPSA), Perceived value of LPs in South Africa (PVSA), Fuel consumer loyalty resulting from use of LPs (LSA), and Fuel consumer intention to repurchase (ITP). The operational definitions of these variables are shown in Table 2 below.

3. LITERATURE REVIEW

This section is comprised of the theories grounding this study, empirical literature review, hypotheses development, and the conceptual model.

3.1 Grounding theories

Social exchange and Equity theories (SET and ET respectively) provide the theoretical framework for this study. The rationale for this choice is that the variables for the study relate directly to the main issues addressed by these theories. According to the SET, the interaction of people comprises of the exchange of social and material resources (Blau 1964), and has elements of interdependences that develop over time (Lambe, Wittman & Speakman 2001), which are in turn based on the costs and benefits to the parties (Ridings, Gefen & Arinze 2002). Austin, McGinn and Susmilch (1980) purport that in market-related exchanges; the aim of these relationships is purely economic. For purposes of the present study, the exchanges are those between fuel customers and LP owners/LP partners with both parties having economic goals for transacting. Customers share personal information when joining the programme. This might create possibilities of confidentiality and privacy concerns. The Equity theory (ET) on the other hand, stems from social psychology (Austin *et al.* 1980; Homans 1961). It describes how customers make trade-offs between what they give in return for what they receive (Evanschitzky *et al.* 2012). The exchanges do not necessarily have to involve physical products (Lee, Capella, Taylor, Luo & Gabler 2014). According to the ET, customers have a perception of what they put into a market-related transaction and what the outcomes associated with that exchange should be (Lacey & Sneath 2006). It, therefore, follows that this is concerned with the fairness of transactions people engage in (Lee *et al.* 2014). In the present study context, how customers perceive the value of the rewards offered in any LP matters.

3.2 Empirical literature review

The major players in the SA fuel industry are Engen, Petro SA, Sasol, Total, Shell, BP and Caltex (South African Petroleum Industry Association Corporate Profile (SAPIA) 2010).

Countrywide, fuel prices are regulated by the Department of Energy as per the Petroleum Products Amendment Act 58 of 2003 (Shongwe 2012; South Africa 2003b). Fuel price determination is done after a thorough assessment and consideration of both the domestic issues such as fuel taxes, Road Accident Fund, and customs duty (Department of energy 2010), and the international environment (which is informed by the global oil markets and basic fuel price systems as per the Petroleum Products Act 177 (Ratshomo & Nembahe 2018; South Africa 1977a). The domestic elements account for the higher prices paid in the SA fuel market when compared to countries such as Lesotho, Swaziland, and Botswana, which import their fuel from SA (Okoye 2018). There is, therefore, generally price uniformity in the South African industry, which leads to minimal fuel-switching costs (Kasai & Chauke 2017).

Price uniformity and low switching costs prevent customers from committing to one brand (Liu 2007). The introduction of LPs addresses the issue of gaining more business from existing customers (Ehrenberg, Goodhardt & Barwise 1990), and of discouraging customers from switching to brand competitors (Acatrinei & Puiu 2012). Faced with soaring fuel prices, motorists are taking advantage of LPs offered by other businesses in partnership with fuel retailers (Tarrant 2018). Liu (2007) and Sharp and Sharp (1997) argue that the introduction of LPs lessens the switching costs risks by actually raising them. The motorists get points or cashback of up to 50% of total fuel spent back, depending on the programme they participate in. LPs have the effect of raising marketing costs for competitors (e.g. additional information technology and human resources costs (Acatrinei & Puiu 2012; Magwaza 2014; Thomas 2013)), creating commitment and of strengthening customer loyalty (Aaker 1991; Leenheer, van Heerde, Bijmolt & Smidts 2007). LPs create entry barriers and are thus a defensive form of marketing (Liu 2007; Sharp & Sharp 1997).

Tarrant (2018) claims that First National Bank was the first to introduce fuel LPs in 2010, followed by ABSA and later Standard Bank. Other companies such as Discovery, Clicks, Edcon, and Dischem later introduced their programmes in 2017 (Tarrant 2018). LPs involve the issuing of loyalty cards to the customer (Liu 2007), and these cards operate like a bank card as it is made of plastic, has a barcode and a magnetic strip which enables swiping at participating stores (Jain & Singhal 2012; Liu 2007). The LP owner allocates points upon every transaction at participating stores (Jain & Singhal 2012). There are different types of loyalty programmes such as rewards, rebates, appreciation, and partnership programmes (Kumar & Reinartz 2018). The one favoured by the SA petroleum industry is the partnership type, wherein rewards accumulate with LP partner products. The example for this one is the

Standard bank-Caltex one. In this particular one, customers can redeem points they accumulate through Caltex service stations. Programme partners enable customers to collect and spend programme points from multiple participating companies (De Wulf, Odekerken-Schroder & Iacobucci 2003; Sharp & Sharp 1997). LPs have the ability to expand by incorporating other companies (De Wulf *et al.* 2003). For example, Clicks is in partnership with Shell, Nu Metro, Sorbet, Musica, NetFlorist, Spec Savers, Claire's City Lodge Hotel Group, Execuspecs, GNC, Europcar and Sanlam Reality (Business Tech 2017). This allows companies to benefit from each other's reputation by the spillover and the cross-buying effects (Lemon & Von Wangenheim 2009).

The SA petroleum industry LPs has three major stakeholders, namely, the customer, the LP programme owner, and the programme partner. In order for the LP programme to succeed, all these stakeholders should derive benefits from its implementation (Stathopoulou & Balabanis 2016). According to Gable, Fiorito and Topol (2008), LPs offer short-term or long-term benefits. The benefits can be either financial or non-financial in nature (Mimouni-Chabbane & Volle 2010). For the LP owner and partners, LPs have the effects of gaining new customers (Buttle 2009), improving customer loyalty, relationship maintenance (Tabrani, Amin & Nizam 2018), real-time feedback gathering from customers (Vyas & Sinha, 2008), and customer profiling (Knorr 2019).

3.3 Loyalty programmes' perceived value of rewards and customer satisfaction

Meyer-Waarden (2008) states that successful LPs often make customers experience a sense of intelligence, pride, and achievement. Evanschitzky *et al.* (2012) state that economic benefits are the strongest drivers of customer loyalty. Other authors emphasise different types of benefits such as those that induce feelings of self-assurance and security (Chitturi, Raghunathan & Mahajan 2008; Jones, Reynolds & Arnold 2006), and those that invoke feelings of cheerfulness and excitement (Aurier & Guintcheva 2014). Krithika and Ganesh (2013) state that LP rewards' success depends on whether the customers feel that they are both financially and psychologically rewarded.

The most important element of the reward structure is the perceived value customers attribute to their personal experience (Bolton, Lemon & Verhoef 2004; Holbrook 1996), and this is composed of those attributes highly valued by the target customers (Mimouni-Chabbane & Volle 2010). LP benefits have ultimately to be those that matter to the customers (Demoulin & Zidda 2008; Mimouni-Chabbane & Volle 2010; Yi & Jeon 2003). Customers must, based on their subjective comparisons between incurred costs of the

goods or services and the perceived value (Kotler & Keller 2015), perceive the rewards to be of value to themselves (O'Brien & Jones 1995). If the LP reward programme is to succeed, it will be dependent on how valuable customers perceive them (Demoulin & Zidda 2008). If he/she perceives little or no value to himself or herself, the LP programme will be a failure (De Wulf, Odekerken-Schroder & Iacobucci 2001). Clearly, there is a positive relationship between loyalty to a programme or brand and perceived benefits the programme offers (Lewis 2004; Taylor & Neslin 2005). Flowing from the above literature review, the study proposes the following hypothesis for the South African fuel industry:

H₁: There is a positive relationship between the perceived value of the rewards offered by loyalty programmes and customer satisfaction in the South African fuel industry.

3.4 Customer satisfaction and loyalty

Customers' experience of the LP is comprised of their exposure to the programme and their usage (Mimouni-Chabbane & Volle 2010). This exposure triggers processes that lead to a choice on whether to participate in it or not to do so (Jauhari, Kusumawati & Nuralam 2019). Oliver (1997) states that customers join LPs that will meet their goals. He goes on to state that satisfaction results from a perceived consistency between how well the LP is expected to perform on the important aspects and the actual performance on those aspects (Oliver 1997). Yi and Jeon (2003) and Mimouni-Chabbane and Volle (2010) both state that customers are only satisfied with LPs when they perceive their benefits as valuable. The decision to continue with the service is dependent on whether the customer is satisfied or not (Chung & Shin 2010). Their satisfaction includes feelings of being fulfilled (Hsu, Chang & Chen 2012) and contentment with respect to his/her experience (Anderson & Srinivasan 2003). Customer satisfaction affects customer retention or loyalty (Heriyana, Ma'ruf, Honeyta & Syafruddin 2019), and the attraction of new customers (Tandon, Kiran & Sah 2017). Satisfied customers are more prone to spread a positive Word-of-Mouth about any service or programme (Kandampully, Zhang & Bilgihan 2015). Drawing from this review, it can be hypothesised that:

H₂: Customer satisfaction with a loyalty programme has a positive influence on their loyalty to the fuel brand.

3.5 Loyalty programmes' perceived value, customer loyalty, and repurchase intentions

For any relationship to be successful, both parties need to be committed and loyal (Morgan & Hunt 1994). Loyalty is a characteristic that is not inherent in brands but something that customers may exhibit in brands (Uncles, Dowling & Hammond 2003). Scholars agree that no single definition can capture the true meaning of the concept of loyalty (Dick & Basu 1994). There is however, a broad agreement on the behaviours associated with loyal customers. Customers become loyal to a company's brand when they perceive that the company's brand and service is valuable to themselves (Bose & Rao 2011). When customers loyally commit to a LP their likely continued patronage is increased (Evanschitzky *et al.* 2012). Secondly, loyal customers gain an inclination to choose the same brand amongst several brands (Uncles, *et al.*, 2003), purchase frequently from the brand (Aaker 1991), and form significant brand equity compared to once-off customers (Aaker 1991; Jacoby & Chestnut 1978;). Lastly, the perceived value of the benefits accruing to customers has a positive relationship with their brand loyalty (Anisimova 2007; Demoulin & Zidda 2008; Uncles *et al.* 2003), which is a significant driver of future purchases (Evanschitzky *et al.* 2012). For purposes of this study, customer brand loyalty is the one that manifests by purchase frequency and purchase possibility (Yi & Jeon 2003), and its' outcomes are behavioural intentions that drive repeat purchases (Jokinen 2014). Sharp and Sharp (1997) and Jokinen (2014) both agree that loyal LP customers exhibit repeat purchases. Meyer-Waarden (2008) further emphasises the same point by stating that LPs will intensify repeat purchases. Commitment to future actions forms part of loyalty (Hua, Wei, DeFranco & Wang 2018).

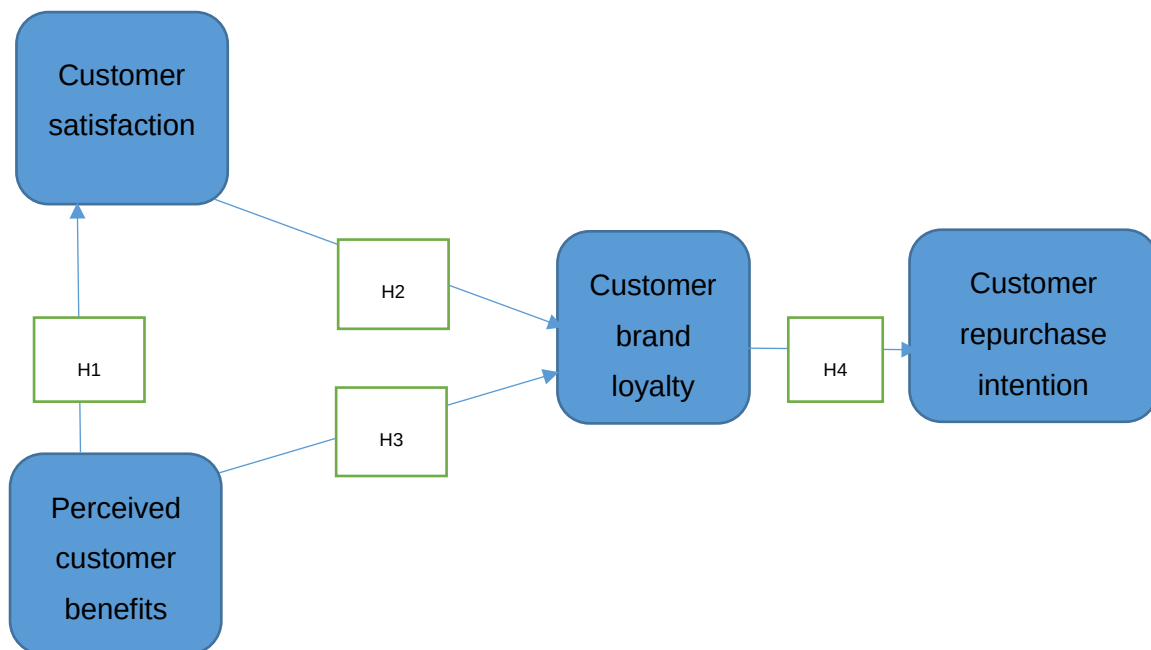
In light of this literature review, the study proposes two hypotheses:

H₃: The perceived value of a loyalty programme rewards positively influences customer loyalty to brand fuel in South Africa

H₄: Loyalty to a fuel brand in South Africa has a positive impact on the repeat purchase intentions of customers.

The above (H1-H4) hypotheses are represented in a form of a conceptual framework as shown in Figure 1 below.

Figure 1: Proposed conceptual framework



Source: Literature review and hypotheses

4. METHODOLOGY

This study followed a quantitative approach, the approach that uses Statistics to quantify data (Cant, Gerber-Nel, Nel & Kotze 2003). One of the advantages of this approach is that a researcher is able to quickly administer, analyse and interpret the results (McKenzie 2013). Senior students from a university in Gauteng who hold loyalty cards from the six major players within the SA petroleum industry formed the target population for this study. The rationale for the choice was the ease of access to the respondents and cost considerations, which are all in accordance with scholarly recommendations (Bryman & Bell 2011). The non-probability convenience-sampling method was employed (Cant *et al.* 2003), and care was taken to protect participants' privacy and confidentiality in accordance with the Consumer Protection Act 68 (South Africa 2008c). The sample size of 350 was determined after taking into account the analysis method applied in the study and the use of Raosoft (Wolf, Harrington, Clark & Miller 2013). Self-administered written survey questionnaires were used to collect the primary data due to the accuracy, low-cost nature and the effectiveness of this method (Cant *et al.* 2003).

In accordance with Vogt's (1999) recommendations when measuring attitudes, perceptions, and behavioural intentions, a five-point Likert scale was used. Data were collected using self-administered questionnaires. The questionnaires were developed in English as the

assumption was that all respondents are English literate. Each construct utilised multiple item measures in order to avoid measurement errors related to the unreliability of single measures (Churchill 1979; Gliem & Gliem 2003), and only previously, used measures were adapted to the present study.

4.1 Measures and ethical considerations

All the research constructs' operational definitions are in accordance with previous works (see Table 1 for operational definitions). Mimouni-Chaabane and Volle (2010) scale items were adapted for both customer satisfaction and perceived benefits of LP rewards. To check for customer loyalty, scale items from Yi and Jeon (2003) were adapted. Repeat purchase intentions were measured using adapted scale items from Sirdeshmukh, Singh and Sabol (2002). For the summary of scale items and their sources see Table 2 below. All scale items were scored on a 5-point Likert scale ranging from 1 to 5, with 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly agree. The survey questionnaires were hand-delivered together with a covering letter that detailed the purpose of the study, gave anonymity, and confidentiality assurance. Before data collection, ethical clearance was issued from the aforementioned university's ethics committee. The protocol number allocated for the study is CBUSE1359. No data were collected to identify individual participants.

Table 1: Constructs operational definitions and sources

Variable	Operational definitions	Sources
Perceived benefit (PB)	Personal value customers attribute to their experience with the programme, explains why they participate in LPs; Personal experience includes exposure and usage	Holbrook (1996) Bolton <i>et al.</i> (2004) Mimouni-Chaabane and Volle (2010)
Satisfaction (SP)	How well customer's expectations have been met; a precondition for customer loyalty	Omar <i>et al.</i> (2011); Demoulin and Zidda (2008).
Customer loyalty (CL)	Subdivided into Programme loyalty and Brand loyalty Programme loyalty: possession of a high positive attitude towards a LP, not the brand; Brand loyalty: Customer's inclination to always choose the same brand, it enables customers to stay with the same brand	Yi and Jeon (2003); Uncles <i>et al.</i> (2003); Uncles <i>et al.</i> (2003); Wernerfelt (1991); Yi and Jeon (2003)
Repeat purchase (RP)	Extremely imperative purchase behavior that encourages surplus buying of a brand; imperative for brands survival	Sharp and Sharp (1997); Chiu, Wang, Fang and Huang (2014)

Table 2: Variables and sources adapted from

Variable	Source adapted from
Satisfaction (SP)	Mimouni-Chabaale and Volle (2010)
Perceived benefits (PB)	Mimouni-Chabaale and Volle (2010)
Loyalty (CL)	Yi and Jeon (2003)
Repeat purchase (RP)	Sirdeshmukh, Singh and Sabol (2002)

4.2 Data analysis

Due to the lower than expected number of participants, only 316 responses were used for analysis purposes. As this study tested a series of relationships between variables (Mueller & Hancock 2008), and it was for both theory testing and theory confirmation (Ringle, Wende & Becker 2015), the PLS-SEM procedure was deemed appropriate (Mueller & Hancock 2008). Further, Smart-PLS is ideally suited for the small sample sizes like the one used in this study (Hair, Ringle & Sarstedt 2013). Collected questionnaires were first checked for completeness in accordance with scholarly recommendations (Malhotra 2010), and those with missing data were rejected (Fallisard 2011). The data were first coded and captured into an Excel spreadsheet (Pallant 2016). For the preliminary data analysis, the researchers used SPSS statistical software. For the second stage, the Structural Equation Modeling (SEM) procedure was applied to perform the hypotheses testing using the AMOS 25 Statistical package (see Figure 2 below). For the respondents' profiles, see Table 3 below.

Table 3: Respondents' profile

Categorisation	Number of participants	Percentage of the total
Gender		
Male	119	37.7
Female	195	61.7
Other	1	0.3
Not given	1	0.3
Total	316	100
Age group		
19 and below	3	0.9
20-29	74	23.4
30-39	145	45.9

Categorisation	Number of participants	Percentage of the total
40-49	70	22.2
50-59	18	5.7
60 and above	6	1.9
Total	316	100
Brand		
BP	44	13.9
Shell	90	28.5
Caltex	61	19.3
Total	20	6.3
Sasol	22	7
Engen	79	25
Total	316	100
Employment		
Employed	291	92.1
Not employed	18	5.7
Not said	7	2.2
Total		100

Source: Data from study

Reading from the respondents' profiles, it appears that the majority were female participants with a 62% share of the total. In addition, the 30-39 age groups dominated as evidenced by their 45% share. In terms of fuel brand performance from these results, Shell has a lion's share of the market at 28%. Total and Sasol seem to be the two fuel brands that are not actively pursuing the use of LPs as the other companies are doing. Total is at 6.3% and Sasol at 7%. Judging from the percentage of the employment status of the respondents, the majority of them (92%) are formally employed. Some of the results from their responses on the different items reveal the following: In terms of the respondents' satisfaction with the fuel LPs, the range is between 60% and 71%. This suggests that people who participated in this study feel a reasonable amount of satisfaction with their participation in the LP. An average of 65% of them feel that they are getting good value on the items measured, which further explain their satisfaction level. These further explain why participants expressed a strong loyalty and intention to keep on supporting their brands. In general, the responses show that on all the items pertaining to the "intention to repurchase", more than 70% expressed willingness to continue doing business with their present fuel supplier.

4.3 Measurement accuracy

For reliability checking, the Cronbach Alpha coefficient, Composite reliability and Average Value extracted were deemed sufficient (Steinkuhler 2010; Larwin & Harvey 2012). A figure of 0.7 or higher is acceptable for a Cronbach-Alpha (Nunnally & Bernstein 1994), and a CR value of more than 0.7 is the scholarly recommended one (Yang & Lai 2010). The average value extracted (AVE), a figure which estimates the amount of variance accounted for by the latent variable has to be greater than 0.5 (Fraering & Minor 2006). All AVE figures ranged between 0.50 to 0.73 and the CR values between 0.83 and 0.90. Reliability was thus confirmed. For these values, see Table 4 and Table 5.

Table 4: Reliability test results

Construct		Mean	Standard deviation	Item-total correlation	Chronbach Alpha	Factor loadings
SP	1	3.96	0.853	0.722	0.902	0.757
	2	3.89	0.811	0.796		0.83
	3	3.78	0.903	0.787		0.857
	4	3.84	0.838	0.825		0.90
PB	1	3.28	1.049	0.594	0.836	0.729
	2	3,14	1.033	0.649		0.78
	3	3.56	0.982	0.661		0.787
	4	3.56	1.008	0.520		0.512
	5	3.79	0.872	0.593		0.542
	6	3.79	0.867	0.670		0.658
CL	1	3.79	0.910	0.644	0.868	0.693
	2	3.88	0.866	0.721		0.817
	3	3.75	0.867	0.814		0.896
	4	3.54	0.892	0.703		0.762
RP	1	3.97	0.96	0.616	0.734	0.901
	2	3.93	0.975	0.681		0.804

Source: Data from study

Table 5: Measures accuracy results (Reliability and validity)

Construct		Estimates	Average value extracted	Composite reliability
SP	1	0.757	0.7	0.9
	2	0.83		
	3	0.857		
	4	0.90		
PB	1	0.729	0.46	0.83
	2	0.78		
	3	0,787		
	4	0.512		
	5	0.542		
	6	0.658		
CL	1	0.693	0.63	0.87
	2	0.817		
	3	0.896		
	4	0.762		
RP	1	0.901	0.73	0.84
	2	0.804		

Source: Data from study

Validity checks were based on Confirmatory factor analysis (CFA). It consisted of CR values, which have to be above 0.6 (Wang, Cheng, Purwanto & Erimurti 2011). Discriminant validity was confirmed using the inter-construct correlation matrix (Morar, Venter & Chuchu 2015). The higher the correlation between the constructs, the lower the discriminant validity of the variables (Nunnally & Bernstein 1994). The values ranged from 0.700 to 0.480, which are all within the recommended threshold of 0.7. See Table 6 below.

Table 6: Inter-construct correlation matrix

		SP	PB	CL	RP
SP	Pearson correlation	1			
PB		0.64	1		
CL		0.626	0.480	1	
RP		0.706	0.684	0.691	1

Source: Data from study

When checking for model fitness through CFA, the use of multiple fitness indices is the pragmatic approach (Byrne 2012; Kline 2011). Table 7 displays all the fitness indices obtained.

Table 7: Model fitness indices

Indices	Threshold	CFA results	Decision
Ci-Square	<3	2.739	Acceptable
CFI	>0.9	0.948	Acceptable
GFI	>0.9	0.902	Acceptable
IFI	>0.9	0.948	Acceptable
NFI	>0.9	0.92	Acceptable
TLI	>0.9	0.936	Acceptable
RMSEA	<0.08	0.074	Acceptable
Key: CFI-Comparative fit index, GFI-Goodness fit index, IFI-Incremental fit index, NFI-Normed fit index, TLI-Tucker Lewis index, and RMSEA-Root mean square error of approximation.			

Source: Data from study

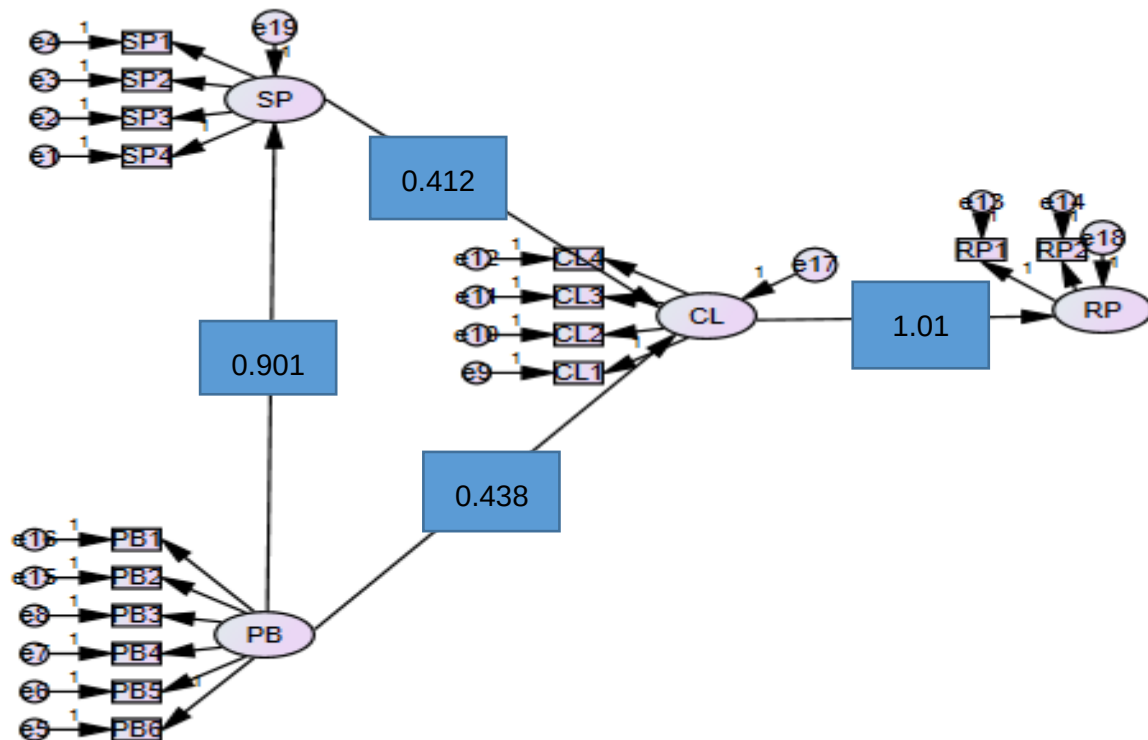
From Table 7, it is evident that NFI, GFI, and CFI are all above the recommended cut-off value of 0.9, which proves a good fit (Chang & Chen 2009).

4.4 Hypotheses testing results

After testing for measurement accuracy, the structural model was analyzed to evaluate both the direction and the strength of the relationships between the variables (Hair, Black, Babin, Anderson & Tatham 2010). Figure 2 and Table 8 below give the results of the analysis and show the pat-coefficients between the constructs. Table 8 also shows the significance level

and the decisions on all the hypotheses. Reading from the results, the outcomes confirm all the proposed hypotheses.

Figure 2: Measurement and Structural model



Source: Analysis outcome

Table 8: Hypotheses testing outcomes

Relationship	Hypothesis no	Path coefficient	Outcome	Decision
SP → CL	H ₁	0.412	Significant at p<0.01	Positive
PB → SP	H ₂	0.901	Significant at p<0.01	Positive
PB → CL	H ₃	0.438	Significant at p<0.01	Positive
CL → RP	H ₄	1.011	Significant at p<0.01	Positive

Source: Data from study

The following discussion flows from these results.

H₁: There is a positive relationship between the perceived value of the rewards offered by loyalty programmes and customer satisfaction in the South African fuel industry.

The relationship between the perceived value of benefits and satisfaction was also confirmed, with a path coefficient of 0.901. This result confirms other findings such as Mimouni-Chaabane and Volle (2010) and Yi and Jeon (2003). Anisimova (2007) further confirms the same, especially if the benefits are financial in nature.

H₂: Customer satisfaction with a loyalty programme has a positive influence on their loyalty to the fuel brand.

From this result, the study concludes that when customers are satisfied with a LP, they also become loyal to the fuel brand involved. A Path coefficient of 0.412 confirmed the proposed relationship. These results are in agreement with Rowley (2000), but conflict with those from Solvang (2007). According to Solvang (2007), satisfied customers can still switch to what the competition offers as long as the new deal is a better one.

H₃: The perceived value of a loyalty programme positively influences customer loyalty to brand fuel in South Africa

The hypothesised positive relationship between LP benefits and customer loyalty was also confirmed, with a path coefficient of 0.438. The outcome of this testing also confirms a string of other research findings. Lewis (2004), Taylor and Neslin (2005), and YI and Jeon (2003) all confirm the existence of a positive relationship between customer loyalty and perceived benefits of an LP. These conclusions also hold for South African fuel consumers.

H₄: Loyalty to a fuel brand in South Africa has a positive impact on the repeat purchase intentions of customers.

The relationship between loyalty and repeat purchases was also confirmed with a path coefficient of 1.011, which is a very significant result. Sharp and Sharp's (1997) findings purport that customer loyalty leads to increased revenue, predictable sales and profits support this outcome. In addition, Evanschitzky *et al.* (2012) also came to the same conclusion.

5. MANAGERIAL AND ACADEMIC IMPLICATIONS OF THE STUDY

The research quantitatively studied the effectiveness of the LPs used by fuel supply organisations in conjunction with other businesses. The researchers empirically tested the relationships between the variables: perceived value offered by LPs, customer satisfaction arising out of the LPs, customer loyalty and possibilities of repeat purchases because of the programmes. The study proposed a conceptual model based on these variables, and in doing so, offers a new framework that provides practical pointers for researchers who work

within the fuel industry. In addition, by using two grounding theories, the study extends their application to the often-overlooked fuel industry. In light of the findings of this study, research on other factors affecting customer satisfaction should be undertaken. To mitigate the possibilities of customers becoming loyal to the LP rather than to specific brands, studies should also be conducted to identify measures that encourage loyalty to participating brands rather than loyalty to LPs. The context of the research (data source) provides opportunities for future comparative analysis between the effectiveness of LPs between developed economies and the emerging ones, which in itself has academic merit (Prentice, Chen & Wang 2019). For management practitioners, the findings shed light on how to configure the identified variables in any LP for maximum impact. Given a choice on what to put more emphasis on, organisations need to be innovative in finding ways to improve customer loyalty, as this has a huge impact on repeat purchases. Companies need to investigate what goes into satisfying customers (when using LPs), because clearly, their satisfaction is not only a function of the perceived value they obtain from LPs. The path coefficients between perceived value and loyalty and that between customer satisfaction and loyalty confirm this conclusion. Customer satisfaction has a more positive effect on repeat purchase intentions than the perceived value they get from participating in the LP. In conclusion, LPs in the fuel industry offer some opportunities which can be exploited for the benefit of both academia and industry.

6. LIMITATIONS OF THE STUDY

The sample for the sample consisted of students from a SA university, and that limits the study's generalisability to the SA public. It is recommended that the model be tested with a wider representative sample to enhance the generalisability thereof. Further, the number of respondents is small compared to the country's population. Caution should, therefore, be exercised when interpreting the results of this study.

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