

Enhancing the value of loyalty programmes through multi-sided platforms

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ABSTRACT

This research investigated the possibility of using Multi-sided Platforms (MSPs) to connect Service Providers (SPs) and consumers on Loyalty Programmes (LPs) to enhance value proposition. It assessed whether consumers are maximising the value of their LPs and determined their interest in subscribing to an MSP to enhance it.

The adoption of LPs by SPs in RSA is snowballing, which brings complexity for consumers to participate fully. Managing LPs from various SPs is complicated without a centralised platform. The inefficient design of LPs impacts participation efforts, affecting consumer engagement. The growth leads to consumers not realising the total value of LPs despite frequent purchases.

The research employed a quantitative data collection approach using the Qualtrics platform. The study collected quantitative data through an online survey that utilised a questionnaire with a 5-point Likert scale.

The research targeted individuals residing in South Africa (RSA) with LP subscriptions in the grocery and fuel retail sectors. The sample included individuals of all ethnicities, genders, and occupations between the ages of (19 and 60).

The study found that the design of loyalty programmes impacts engagement rates, and the technology used on LPs affects participation efforts. According to the study, the current LP designs are inefficient and provide value to SPs only. The research concluded that consumers would adopt MSPs if they are used on LPs and enhance the value they get.

KEYWORDS

Consumers, Engagement Rate, Loyalty Programme Design, Loyalty Programmes, Multi-Sided Platforms, Participation Effort, Service Providers, Technology Solution, Value Distribution

DECLARATION

I, Sello Derick Tlabela, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: Sello Derick Tlabela

Signature:



Signed at Centurion

On the 29 day of February 2024

DEDICATION

I dedicate this research report to my family members who have passed on. My father, Thapedi, taught me integrity; my mother, Ledile, taught me accountability; my sister, Phuti, taught me humility; and my other sister, Tselahale, taught me perseverance. I applied all the values they taught me when I worked on this report. Their teachings and memories were my sources of strength and wisdom.

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LIST OF ACRONYMS

<i>Acronym</i>	<i>Definition</i>
<i>ANOVA</i>	Analysis of Variance
<i>CLP</i>	Coalition Loyalty Programme
<i>COVID-19</i>	Coronavirus Disease 2019
<i>CRM</i>	Customer Relationship Management
<i>ER</i>	Engagement Rate
<i>H1</i>	Hypothesis 1
<i>H2</i>	Hypothesis 2
<i>LPD</i>	Loyalty Programme Design
<i>LPs</i>	Loyalty Programmes
<i>MSPs</i>	Multi-Sided Platforms
<i>PE</i>	Participation Effort
<i>RO1</i>	Research Objective 1
<i>RO2</i>	Research Objective 2
<i>ROI</i>	Return On Investment
<i>RSA</i>	South Africa
<i>SPs</i>	Service Providers
<i>TAM</i>	Technology Acceptance Model
<i>TOC</i>	Theory of Constraints
<i>TS</i>	Technology Solution
<i>VD</i>	Value Distribution

CHAPTER 1. INTRODUCTION

1.1 Statement of purpose

This research explored the potential benefits of using MSPs to connect SPs and consumers on LPs to enhance value.

The study assessed how current LP designs affect efficiency, ease of use, and consumer value. It evaluated consumers' efforts to guarantee maximum value from LPs.

The study investigated if consumers would accept MSP as a technological solution to improve their participation in LPs and enhance the value they derive.

It further investigated the possibility of improving LPs' efficiency and ease of use to enhance consumer value and reduce participation efforts through MSPs.

1.2 Background of the study

Numerous organisations worldwide utilise LPs as an integral component of their marketing strategies, primarily to encourage repeat purchases and facilitate upselling. The trend is evident across various countries, ranging from superpowers to smaller nations. According to a report by Newsweek (2024), the global LPs ecosystem is projected to expand from \$5.6 billion in 2022 to \$24 billion by the end of 2029. This substantial growth will introduce additional complexities and challenges for consumers engaging in these programmes.

LPs are marketing strategies that encourage consumers to engage with a specific brand more frequently (Dziawgo, 2023). They are primarily used to retain customers, attract new ones, promote repeat purchases, and build brand loyalty, as echoed by Thompson and Chmura (2015). Consumers earn points that can be redeemed for discounts, rebates, or free products to reward brand loyalty, according to NastasoIU et al. (2021).

According to a report by BusinessWire (2022), the LP market in China is projected to grow by 13.5% annually. Additionally, the report highlighted a positive correlation between the growth in LPs and the expansion of the e-commerce market. This report further indicated that over the last decade, the trend of online shopping adoption has gained momentum, leading to the widespread popularity of LPs in the country. This observation shows the significant size of LPs in China, and the complexity consumers will encounter in managing their various subscriptions.

A report published by Faria (2023) revealed that 70% of Americans indicated that LPs are the primary factor driving their loyalty to various brands. The survey indicated that more than 50% of the country's shoppers were likely to increase their participation in LPs. However, the survey revealed a significant gap between LP subscription and actual usage. Consumers subscribe to about 16.6 programmes on average but only engage in half of them. This observation indicates that as LPs grow, it becomes increasingly difficult for consumers to fully participate in all of them.

African countries are also part of the LP ecosystem. An article by Gottert (2024) reported that over 50% of consumers in the Middle East and Africa prefer discounts, offers, and free products from their LPs. The article mentioned that 88% of consumers in Nigeria believe that real-world experiences are crucial to them, followed by markets such as RSA and Egypt. In Rwanda, companies are competing to reward loyal customers across different industries, intensifying efforts to attract customers to their services (Bizimungu, 2019).

In RSA, LPs are used in retail, financial services, telecommunications, hospitality (health and wellness), entertainment, and transportation (Kim & Ahn, 2017). However, Berman (2006) found that the design of LPs may significantly impact efficiency, ease of use, and consumer value. Factors such as reward type, ease of use, reward system (customer identification and profiling), and accessibility may influence consumer engagement and participation, as Bruneau et al. (2018) observed. Their designs vary among SPs; others may use a loyalty card to identify and profile consumers. In contrast, some may use a mobile application or number to achieve the same.

Some programmes do not allow consumers to track loyalty points, while others enable tracking via mobile applications and retail till points. When it is difficult for consumers to estimate the percentage discount that reward points can offer, they are less likely to redeem at the first available opportunity, according to Kwong et al. (2011). Some LPs require card swiping to earn or redeem points, while others require mobile numbers or application scanning to achieve the same. BusinessTech (2023) reported that SPAR rewards require a phone number, while Pick 'n Pay smart shoppers require card swipes for earning and redeeming points.

Some programmes offer consumers instant rewards while others offer long-term ones. Low liquidity of earned points is one of the factors contributing to members' inactivity in programmes, according to Purohit and Thakar (2019). However, SPs must remember that poorly designed programmes increase promotional expenditures without a proper return on investment (ROI), warned Vatsa et al. (2023).

1.3 Research problem

There is a significant and rapid adoption of LPs in RSA, and because of this, consumer participation is becoming increasingly complex. Seventy-three per cent (73%) of economically active South Africans use LPs, as Cromhout (2022) claimed. Research by Cromhout (2022) further reported that consumers now subscribe to an average of nine-point two (9.2) programmes, which is up from three-point six (3.6) in 2014. This growth means that, on average, a consumer should manage nine-point two (9.2) loyalty cards, mobile applications, or a combination of the two at any given point. In the past few years, consumer memberships in LPs have increased exponentially, and they have become an essential component of many SPs' customer relationship management (CRM) strategies, according to Omar et al. (2010).

The increased usage of LPs by SPs increases the consumer's administrative burden and may be problematic for high-income consumers struggling to juggle work, business, family, and personal life. High-income earning consumers are likelier to participate in LPs than lower-income earning ones (Cromhout, 2022).

Poorly designed LPs increase expenditure, discourage consumer participation, reduce value, and prevent long-term customer loyalty, Vatsa et al. (2023) observed.

A study by Cromhout (2022) found that female consumers use LPs slightly more than male consumers because they are responsible for grocery shopping. They are liable for more housework than male consumers, indicating that the effort required to balance work, business, family, and personal life is more significant for them relative to male consumers.

The lack of a centralised platform where consumers can manage their LPs to earn, redeem, and track points is problematic and discouraging. Some programmes require consumers to visit a store to view their rewards and determine their potential value. They do not allow the consumer to achieve this from anywhere effortlessly.

Consumers may be unable to track their loyalty points, leading to reduced engagement and less participation. Kovač et al. (2018) indicated that buyers could easily spend accumulated loyalty points without restrictions, gaining more value from LPs. The modern-day consumer values convenience and simplicity in their daily activities. With abundant information at their fingertips, tech-savvy consumers have become increasingly difficult to please as they seek to utilise products and services efficiently, according to Vatsa et al. (2023). The hassle of managing multiple loyalty cards can discourage participation, causing consumers to miss out on earning points.

Consumers may disengage when they realise they are not receiving value from an LP. This obstacle may negatively impact their loyalty to the brand. Service quality, trust, and LP design drive consumer behaviour changes, according to Kovač et al. (2018).

New payment methods called virtual cards, such as Google Pay, Apple Pay, and others, have emerged. This development will drive more consumers to pay via smartphones or smartwatches. This behaviour will lead to a decrease in the number of consumers who carry physical wallets. A study by Vatsa et al. (2023) found that the popularity of digital wallets originates from their speed, flexibility,

customer support, ease of use, and security. The study further indicated that digital wallets are tricky to match and may evolve into super applications for managing consumers' finances.

Consumers usually realise they have forgotten their loyalty card when they are about to pay rather than when they have enough time. This problem makes it challenging for them to accumulate points and prevents them from reaping the benefits of the LPs. If the consumer buys products eligible for more points, the impact of not having the loyalty card will be even more significant. Unfortunately, the consumer will be unable to earn the lost points later, which means they will miss out on the rewards.

Cromhout (2022) claimed that various programmes provide different ways for consumers to identify themselves when participating. Cromhout (2022) further indicated that although that is the case, more consumers prefer to swipe their cards instead of using mobile applications or phone numbers. A study by Cromhout (2022) found a five per cent (5%) rise in consumers willing to provide their phone numbers for earning or redeeming points. This percentage grew from twenty-three per cent (23%) in 2021 to twenty-eight per cent (28%) in 2022. This phenomenon adds complexity and confusion for consumers who must switch between various methods when participating in different LPs.

According to Sharma and Verma (2014), the perceived effort in signing up for programmes can negatively and significantly impact consumers' intention to join. SPs have different enrolment processes; some still use paper-based forms, and others use online platforms. The length and complexity of enrolment forms can discourage potential customers from signing up. Therefore, the enrolment process must be as simple as possible, requiring only basic information like a customer's name and phone number to encourage more customers to join the programmes.

The process of enrolling in an LP should prioritise the customer's benefits. It should not give the impression that the customer is only making a significant commitment that benefits the SP. Vatsa et al. (2023) emphasised the importance of having a simplified enrolment process to attract new customers. A streamlined

process leads to satisfied and loyal customers who promote sustainable growth through positive word-of-mouth, as Vatsa et al. (2023) highlighted.

1.4 Research Objectives

This study aimed to evaluate current LP designs and explored the potential of enhancing LP value using MSPs. The study focused on achieving the research objectives listed below to accomplish this primary goal.

1.4.1 Research Objective One (RO1)

To investigate consumer perceptions of LP designs and their impact on participation effort, engagement rate, and value distribution across stakeholders.

1.4.2 Research Objective Two (RO2)

To investigate if consumers are inclined to subscribe to a technology solution that simplifies their participation in LPs while enhancing the value they derive.

1.5 Rationale

According to Radder et al. (2015), LPs are becoming increasingly popular in RSA, with SPs using them to retain and attract customers. They also use them to encourage repeat engagement, build brand loyalty, and increase revenue. However, despite their widespread adoption, little attention has been paid to researching how this growth affects consumer participation and how current LP designs are experienced and perceived by consumers. Therefore, more research is needed to understand how LP designs impact participation effort, engagement rate, and value distribution across stakeholders.

Most empirical research focused on the benefits of LPs from an SP perspective (Lewis, 2004). This approach leaves the question of how consumers perceive LPs and what benefits they may derive from participation (Kivetz & Simonson, 2002).

Mimouni-Chaabane and Volle (2010) stated that most research on LPs focuses on the benefits and effectiveness of SPs and overlooks consumers. However, Bruneau et al. (2018) suggested that the focus should not be solely on the SP's perspective for an adequate evaluation of LPs. The direction should also consider consumers' engagement and preferences, as emphasised by Bruneau et al. (2018). However, Kovač et al. (2018) indicated that LPs exist to offer consumers essential information, which benefits both consumers and SPs, with the latter potentially gaining more value.

The above was a motivation for this research, which investigated the impact of LP designs on efficiency, ease of use, and consumer value. The study explored how an MSP can improve LPs' efficiency and ease of use and enhance consumer experience and value.

The study explored how consumers perceive the impact of current LP designs on their participation effort, engagement rate, and value distribution. It examined whether consumers are willing to subscribe to a technology solution that simplifies their participation in LPs. A technology solution that enhances the value they receive and reduces the effort they need to put in to participate. The research contributed to the body of knowledge in academia and is significant to South African SPs seeking to improve their LP delivery. The study also helps consumers to maximise LP value while minimising their participation efforts.

1.6 Delimitations of the study

- The study focused on the impact of LP designs on their perceived value by consumers who live in RSA only.
- The study examined the impact of the current LP designs and not the historical development of LPs or their potential future directions.
- The study assessed LPs in the grocery and fuel retail sectors instead of other industries such as banking, telecommunications, health, beauty, and hospitality.

- The study investigated currently operational and widely used LPs in RSA, not new or emerging programmes.
- The study used surveys for data collection, not other methods, such as focus groups, experiments, and interviews.

1.7 Definition of terms

- **Consumers:** Individuals who actively participate in and benefit from loyalty rewards offered by SPs, as profiled by Kamp et al. (2008).
- **Loyalty Programmes:** These are rewards offered by SPs to encourage frequent purchases or patronage by providing programme participants with rewards, discounts, or other benefits (Hofman-Kohlmeyer, 2016).
- **Multi-Sided Market Platform:** A business model that facilitates transactions between two or more distinct user groups, commonly called "sides" of the platform (Staykova & Damsgaard, 2015).

Service Providers: Retailers and banks that offer products or services to consumers and use LPs to encourage repeat purchases or patronage by offering rewards or discounts (Kumar & Shah, 2004).

1.8 Assumptions

The study made the following assumptions:

1. South African consumers actively participate in at least one LP on their subscription list.
2. The current LP design in RSA may impact efficiency, ease of use, and perceived value.
3. Consumers in RSA understand the benefits and rewards provided by their LPs and can compare and evaluate them.

4. The preferences and behaviours of South African consumers towards LPs are consistent across different geographic regions, ethnic groups, and genders.
5. The data collected from the sample of surveyed consumers is representative of the overall population in terms of LP participation and geographic, gender and ethnic distribution.
6. The investigated LPs are designed and carried out following applicable RSA laws and regulations.
7. The information collected from the consumers is truthful and accurate, and any biases or errors in the data are negligible.
8. Consumers in RSA are currently dissatisfied with existing LPs and do not derive maximum value from them.
9. The lack of a centralised channel to access LPs hinders full consumer participation and engagement.
10. SPs are willing to subscribe to an MSP to provide more efficient and easier-to-use LPs to increase customer participation and value.
11. An MSP has the potential to be used on LPs to increase their efficiency, ease of use and consumer value and experience.

1.9 Chapter Outline

This chapter begins by outlining the study's purpose. The following section focuses on the extensive background of the research and a comprehensive overview of the research problem. Furthermore, the chapter articulates the two research objectives and explains the study's rationale. It also delves into the study's limitations, defines key terms, and provides a detailed outline of the research's assumptions to give a complete picture.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This literature review studied whether previous research has concentrated on the following:

- Consumer perceptions and experiences of current LP designs and their impact on participation effort, engagement rate, and value distribution across stakeholders.
- The concept of MSP and its potential to enhance perceived consumer value in LPs while reducing participation effort.
- The relationship between the concept of MSP and LPs and a comprehensive understanding of the current state of knowledge in this area.
- The consumers' willingness to accept the use of general technology in LPs.

The literature review identified gaps in the current research on MSPs and LPs. It also emphasised the importance of investigating their interrelationship. Moreover, it presented a comprehensive evaluation of different perspectives from multiple authors regarding these issues, revealing both commonalities and differences in opinions.

A study by Wanderley de Souza and Sarfati (2020) found that SPs have adopted LPs to keep existing customers and attract new ones. However, the current designs of LPs are complex, inefficient, and inflexible, as noted by Bijmolt et al. (2017). This results in low consumer engagement and value. The emergence of digital technologies, such as MSP, offers a potential solution to these challenges.

This chapter delves into the crucial literature review topic and is divided into five sections. The opening section introduces the literature review and theoretical framework. The subsequent section delves comprehensively into the theoretical framework. The third section discusses the background of the literature review.

The fourth section concentrates on the literature review based on the research objectives, further elaborating on the themes of each objective. Lastly, the fifth section concludes the literature review by discussing the conceptual framework and the identified themes and hypotheses.

2.2 ANALYTICAL FRAMEWORK

2.2.1 Theoretical Framework

This section discusses the theoretical framework based on two theories, namely the Theory of Constraints (TOC) and the Technology Acceptance Model (TAM). The section shows how this study applied each of the two theories. It also shows how previous studies used them and each one's advantages and assumptions.

Şimşit et al. (2014) defined TOC as a management approach that pinpoints and enhances the weakest aspects of a system. Şimşit et al. (2014) indicated that it perceives processes as interdependent components in a sequence and endeavours to resolve obstacles that impede the smooth functioning of the entire system. The primary objective is to enhance the overall efficiency and efficacy of the organisation, added Şimşit et al. (2014).

According to Marton and Paulová (2010), the theory makes several assumptions; the company places a premium on the rate at which its product or service moves through the system. Marton and Paulová (2010) further indicated that rapidity and quantity are the primary determinants of success and that current procedures are necessary for achieving the intended results. They suggested that the theory emphasises fixing the weakest link in the chain and temporarily ignoring chains that are doing well, which is a fundamental principle of process improvement.

A study by Volkov et al. (2022) applied this theory to examine the application of digital tools to teach soft skills-focused courses to university students during the COVID-19 pandemic. The study used TOC to evaluate the university's online platform for teaching academic disciplines, studying the educational process in real-time, and acquiring students' activities and interactions. It found that it was necessary to revisit the content of curricula and individual disciplines to re-

evaluate their applicability in the context of the COVID-19 pandemic and assess the possibility of teaching in a hybrid learning environment.

In this research about LPs, the study used this theory to identify constraints on the current LP designs and chains that make it difficult for SPs to deliver programmes that enable consumers to derive maximum value. The study achieved this by asking consumers about their perceptions and experiences of LP designs to understand how they impacted them.

Applying TOC principles, this study scrutinised how different LP designs influence consumer engagement, participation effort, and value distribution among all critical stakeholders. This theory identified weak links in LP attributes, such as programme structure, rewards administration, customer engagement, participation efforts, and programme policies.

For this research, the theory is linked directly with RO1 to help the study examine how different LP designs affect the perceptions and experiences of consumers. To investigate how well-designed LPs increase customer participation, engagement rate, and value distribution among all critical stakeholders.

Scherer et al. (2019) defined TAM as a widely used theory to understand how consumers approve and adopt technology solution. They also highlighted that perceived usefulness and ease of use are two crucial factors determining consumers' attitudes and willingness to use technology.

Lee et al. (2003) indicated that TAM assumes that users are more inclined to embrace and integrate technology if they view it as beneficial and user-friendly. The authors suggested that users are more likely to adopt a technology if they believe it will help them accomplish their goals and enhance their performance. In addition, users are more likely to utilise a technology if they perceive it as easy to use and feel confident in their ability to utilise it effectively.

The theory further proposed that users' attitudes towards technology can impact their intention to use it, influencing their behaviour. However, the authors acknowledge that external factors, such as social influence and enabling conditions, can also affect users' attitudes and behavioural intentions.

A study by Masrom (2007) applied TAM to explore whether students will embrace e-learning as an application. The primary goal was to aid academic institutions in enhancing their course delivery. The study found that a positive perception of a technology's utility is crucial for encouraging individual intention to use it. In contrast, the students' attitude towards using the technology may not matter.

In the context of this research, applying this theory allowed the study to investigate how consumers perceive an MSP as a technology solution for simplifying and enhancing their participation in LPs. By examining the MSP's perceived benefit and ease of use on LPs, the theory helped determine whether consumers are willing to subscribe to the MSP to simplify their participation in LPs and enhance the value they derive.

2.3 Definition of topic or background discussion

The landscape of LPs has evolved significantly with the emergence of various technologies. These technologies offer SPs opportunities to improve their LP delivery to improve customer experience. As SPs seek to enhance the efficiency of these programmes, understanding consumer perceptions and experiences becomes paramount. This literature review delves into the interplay between loyalty programme design, technology solution, participation effort, engagement rate, and value distribution. It scrutinises how current LP designs are perceived and experienced by consumers and how they impact their participation and the value they receive. It further explores the potential use of MSP to streamline participation processes while augmenting the perceived value for consumers.

Research by Meyer-Waarden (2015) highlights the shortcomings of current LP designs despite their success in retaining customers and increasing lifetime value. The primary issue with traditional programmes is their complex design, leading to limited customer participation and value. For example, consumers must remember to bring their loyalty cards to a store to earn points. Failure to do so results in missed opportunities for participation and decreased engagement rates. These missed opportunities lead to consumers not earning rewards for their purchases.

Numerous consumers find these programmes confusing or not worth the effort, resulting in low engagement rates, as Bruneau et al. (2018) indicated. In some cases, the participation process in current LPs can be inefficient, resulting in little or no value for consumers.

SPs and consumers can experience a more streamlined and user-friendly digital infrastructure with the assistance of MSPs. Poniatowski et al. (2022) echoed these sentiments, proposing that MSPs can facilitate seamless transactions and interactions between the two parties, ultimately enhancing the overall value of and experience.

By leveraging the platform's network effects, SPs can attract more consumers, increasing consumer loyalty and revenue. Consumers will reap the benefits of features such as automated loyalty point accumulation. They will also get regular recommendations, prompting them to join better programmes. The ultimate use of implementing these platforms on LPs will be to simplify participation and enhance consumer value.

2.4 Exploring Consumer Perceptions: Impact of LP Designs on Participation, Engagement, and Value Distribution

This section examines the way consumers perceive the designs of LPs. It investigates how this affects the amount of effort they exert when participating. It explores past research to see how consumers are affected by current LP designs. It further explores how LP designs affect consumer engagement and the value they derive from LPs. The section focuses on the themes, consumer perceptions and experiences of LP designs, consumer LP participation effort, consumer LP engagement rate and stakeholder LP value distribution. Research by Kim and Ahn (2017) indicated that LPs have existed for a while with various design approaches and critical attributes. However, there is no adequate research on LP design regarding participation effort, engagement rate, and value distribution.

The country has fascinating statistics about LP demographics and usage levels. According to research conducted by Cromhout (2022), seventy-three per cent of economically active South Africans subscribe to LPs. The study also revealed

that LP usage has increased by six per cent from sixty-seven in 2014 to seventy-three in 2022. An interesting statistic from the article is that an average South African subscribes to 9.2 LPs. Additionally, female consumers use LPs slightly more than male consumers.

A study by Cromhout (2022) indicated that individuals under 25 use LPs less frequently than their older counterparts. This behaviour is likely because these individuals are still in the early stages of their careers and have yet to engage with the economy and fully subscribe to more LPs.

According to a study by Cromhout (2022), the percentage of LP users is notably higher among those aged 45 and above, with a substantial seventy-eight per cent of this demographic utilising LPs. This trend may be because these individuals are at the pinnacle of their careers and have accumulated around 20 years of experience of being economically active.

The outcome of study a study by Cromhout (2022) showed that higher-income consumers use LPs more than lower-income consumers. This revelation is surprising as the expectation would be that lower-income earners use LPs more so that they use their loyalty points to supplement their purchases.

2.4.1 Consumer Perceptions and Experiences of LP Designs

It is essential to understand consumer perceptions and experiences regarding LP designs. This literature review section delved into the interplay between consumer perceptions and LP designs. It explored how various programme structures, reward systems, and engagement mechanisms influence participation effort, engagement rate, and value distribution.

Consumers must be the focal point of any LP design. They must be the focal point because they are the most essential participants. After all, SPs use LPs to foster customer loyalty. If they are not considered, their engagement in these programmes will be low, rendering them ineffective. The LP design must prioritise personalisation and consider consumers' diversity to satisfy most of them.

A study by NastasoIU and Vandenbosch (2019), which explored the best way to design customer loyalty and reward programmes, supports the above statement. The study found that personalised offers, unique rewards, and additional services that generate more excellent consumer value. The research concluded that LP designs focusing on personalisation enhance the value for SPs and consumers. According to the findings of this study, it supported the notion that for an LP to benefit consumers, it must cater for personalisation.

The findings of the study by NastasoIU and Vandenbosch (2019) align with the results of a study conducted by Kovač et al. (2018). The latter study examined the factors that encourage consumers to participate in LPs. According to the study, personalised offers aim to increase the value consumers receive from LPs. It found that consumers are more engaged with LPs when they feel appreciated.

Bowen and Chen McCain (2015) examined how different generations, from baby boomers to millennials, respond to LPs. The study's results support the findings of NastasoIU and Vandenbosch (2019) and Kovač et al. (2018). According to the study, LP designers can appeal to millennials and increase their engagement by taking personalisation further to consider the needs of different generations during design. The study revealed that consumers' engagement with LPs increases when design considers their preferences.

Belli et al. (2022) investigated the effectiveness of LPs as far as driving customer loyalty is concerned. The study's results support the findings of NastasoIU and Vandenbosch (2019), Kovač et al. (2018), and Bowen and Chen McCain (2015). The study indicated that LP designs vary based on design characteristics. The basis of this is their structure, reward content, delivery, and industry characteristics. This study underscored the importance of personalising LPs to ease consumer participation.

Le Roux (2019) studied the factors influencing college students' engagement in retail LPs. The findings indicated that consumers are more likely to enrol and participate in LPs with a user-friendly joining process and offer ongoing benefits and rewards without expiration. The research suggested that consumers are less motivated to participate in LPs that demand more effort.

A study by Kreis and Mafael (2014) explored the impact of LP design on the relationship between customer motives and perceived value. The study's results support Le Roux (2019). It revealed that certain customer motives correlate with various forms of perceived value, but different programme designs moderate these correlations. This finding suggests that efficient programme design motivates consumers to see the value.

However, a study by Mimouni-Chaabane and Volle (2010), which investigated the perceived benefits of LPs regarding loyalty behaviour, contradicts the results of Le Roux (2019) and Kreis and Mafael (2014). The contradiction is because it found that convenience is not the only factor consumers expect from LPs. It shows that LPs can be inefficient and complex, but consumers will keep engaging if they derive value from them. According to the study, consumers do not care about the LP design if they feel acknowledged and save money when purchasing.

Most authors concur that loyalty programme design negatively affects participation effort, engagement rate, and value distribution. Some studies indicated that, even though more consumers join multiple LPs, they only participate in small numbers. However, some studies tend to favour convenient and easy LPs for consumers to engage. According to the studies, consumers' participation effort does not correspond to the value they obtain from LPs. Therefore, for a holistic view, empirical research must be conducted to examine consumer perceptions, experiences, and expectations regarding the design of LPs.

2.4.2 Consumer LP Participation Effort

It is crucial to explore how the current LP designs impact consumers' efforts when participating in LPs. This part of the literature review delved into the levels of consumer LP participation efforts. It examined factors such as the ease of enrolment, accumulation and redemption processes, and perceived value versus effort exerted. Exploring existing literature on consumer perceptions and experiences about LP designs determined how consumer participation in LPs is affected by programme designs.

A study by Sharma and Verma (2014) delved into the economic and psychological elements of reward programmes. The study highlighted the significance of streamlining LP designs. Their findings indicated that it is crucial to keep the perceived effort needed by consumers to participate in these programmes to a minimum. The designers of LPs should simplify the participation process to promote engagement. Programmes that demand more effort from consumers can have the opposite effect, leading to decreased participation rates.

The results of a study by Wang et al. (2019), which analysed the relationship between blockchain and LP participation, are consistent with the findings by Sharma and Verma (2014). It found that more consumers are disappointed with their rewards as they do not match participation efforts. This finding suggests that consumers perceive inefficient LP designs as necessitating more participation effort.

Danaher et al. (2016) explored whether the incentives derived by members match their participation efforts. The study's results support the findings of Sharma and Verma (2014) and Wang et al. (2019). It found that consumers are not happy with the rewards they receive relative to their participation efforts. The study suggests that inefficient LPs impact the level of participation consumers exert.

Xiao et al. (2023) scrutinised the effects of information transparency in LPs on enhancing consumer participation and engagement. The study's results support the findings of Sharma and Verma (2014), Wang et al. (2019) and Danaher et al. (2016). The study found that greater information transparency leads to lower participation efforts with the LP. The motivation for this finding is that the level of effort required for participation is low due to the ease of understanding the process.

Kivetz and Simonson (2002) researched the role of participation effort as a determinant of consumer engagement in LPs. The study's results are consistent with the findings by Sharma and Verma (2014), Wang et al. (2019), Danaher et al. (2016) and Xiao et al. (2023). It revealed that consumers are dissatisfied with the number of purchases they must make before qualifying for loyalty point

redemption. The study suggests consumers do not want to exert too much effort when participating in LPs.

Yi and Jeon (2003) explored the impact of LPs on the sense of value and loyalty to the programme and brand. The study's results are consistent with the findings of Sharma and Verma (2014), Wang et al. (2019), Danaher et al. (2016), Xiao et al. (2023) and Kivetz and Simonson (2002). It found that consumers prefer instant rewards because the inconvenience of waiting means they should exert more effort. This study suggests that consumers prefer LPs that require low effort to participate.

All authors reached a uniform conclusion on consumer participation efforts in LPs. The studies showed that inefficient LP design led to high participation efforts on the part of consumers. They measured participation effort as the duration of the waiting period for reward eligibility and the level of energy required. They emphasised the need for streamlined LP designs, underscoring the need for minimal participation effort.

2.4.3 Consumer LP Engagement Rate

It is crucial to explore the level of consumer engagement within LPs to evaluate how the current LP designs affect them. This section of the literature review explored the dynamics of consumer LP engagement rate, examining factors such as frequency of interactions, depth of involvement, and overall satisfaction with the LPs.

LPs must adhere to specific design principles to be efficient and easy to use, just like any other product or service. According to Caminal (2012), LPs' efficiency and ease of use depend highly on their designs. Caminal (2012) emphasised that the design should simplify the user journey to ensure low participation effort and a high engagement rate. Most programmes have complex user journeys, discouraging consumers from participating; sometimes, consumers join the programme but do not participate.

Bruneau et al. (2018) explored whether LP members fully engage LPs, measuring their engagement. The study's results are consistent with the findings of a study by Caminal (2012). It revealed that most consumers find it easy to join multiple programmes but only participate in a few. This behaviour is due to inefficient LP designs, showing consumers do not fully engage with poorly designed LPs.

Meyer-Waarden et al. (2023) researched LPs by focusing on customer engagement and loyalty to the company brand. The study's results support the findings of Caminal (2012) and Meyer-Waarden et al. (2023). It found that an increasing number of consumers joined programmes, but the engagement rate with LPs was still lower. This behaviour is due to inefficient LP designs affecting the LP engagement rate.

Mauri (2002) investigated the emergence of card loyalty as a new issue in grocery merchandising. The study's results support the findings of Caminal (2012), Bruneau et al. (2018) and Meyer-Waarden et al. (2023). It found that although supermarket customers joined programmes, only a few engaged entirely with them. Others were exceedingly disloyal, and a few abandoned them despite staying consumers. This study suggests that consumers cannot fully engage in LPs with inefficient designs.

Hörold et al. (2016) explored factors that motivate consumers to engage in LPs actively. The study's results support the findings of Caminal (2012), Bruneau et al. (2018), Meyer-Waarden et al. (2023) and Mauri (2002). It revealed that the degree of participation effort was high. This finding suggests that when LPs' designs are inefficient, they increase consumers' participation efforts. In turn, this reduces the level of engagement consumers have with the LP.

Ashley et al. (2016) examined the impact of LP design on consumers' perceptions and levels of engagement with the programme. The study's results support the findings of Caminal (2012), Bruneau et al. (2018), Meyer-Waarden et al. (2023), Mauri (2002) and Hörold et al. (2016). The study discovered that the engagement rate was poor when the LP design was inefficient. This design requires consumers to make numerous purchases before achieving reward eligibility.

The consensus among authors is that consumers show reduced engagement with the LP when the design is inefficient, and the effort required for participation is high. Hence, complex LP designs result in reduced consumer engagement rates. This design renders LPs ineffective in maintaining customer engagement with the brand. The studies revealed that joining an LP is usually quite simple. As a result, consumers tend to join multiple programmes but only actively engage with a select few.

2.4.4 Stakeholder LP Value Distribution

Examining value distribution across stakeholders within LPs is imperative to understand if SPs and consumers receive equal value from these programmes. This part of the literature review delved into the complex dynamics of LP value distribution among various stakeholders, including SPs and consumers. It explores how participation and engagement help consumers to achieve rewards, incentives, and benefits.

The design of LPs primarily favours SPs while disregarding the interests of consumers. This design flaw is evident in the complexity required to participate fully in LPs and qualify for rewards. Consumers are the primary stakeholders in the context of LPs, as these programmes intend to enhance their loyalty to the brand. Consumers are the primary stakeholders in the context of LPs, as these programmes intend to improve their loyalty to the brand.

Başgöze et al. (2021) studied the relationship between reward type and timing, LPs' value perception, and consumer loyalty. The study's results support the above statement. It found that most LPs' designs benefit SPs more than consumers. This finding indicates that SPs benefit more from LPs than consumers.

Kim et al. (2013) examined the perceived benefits of retail LPs and their impact on consumer loyalty to the brand. The study's results are consistent with the findings by Başgöze et al. (2021). It found that consumers do not derive maximum value from LPs, so they do not impact consumer loyalty to the brand. This finding

means that the value of LPs is only realised by SPs, especially when design is inefficient.

Esmark et al. (2016) compared open LPs with those focusing on selected consumers. The study's results support the findings of Başgöze et al. (2021) and Kim et al. (2013). Designers of LPs should tailor their structure to fit their consumers and overall business strategy. This finding implies that consumers perceive current LP designs as exclusively advantageous for SPs, disregarding them.

Vatsa et al. (2023) investigated using digital wallets to unlock LP potential in customer experience. The study's results support the findings of Başgöze et al. (2021), Kim et al. (2013) and Esmark et al. (2016). It revealed that poorly designed LPs have high expenditures with low or no ROI. This finding means inefficient LP designs benefit neither the SP nor the consumer. The result shows that if LPs' design is poor, they will negatively affect consumer value.

Fourie et al. (2023) investigated how to create strategies to optimise the effectiveness of LPs. The study's results support the findings of Başgöze et al. (2021), Kim et al. (2013), Esmark et al. (2016) and Vatsa et al. (2023). It found that inadequately structured LPs are inefficient and yield a low ROI due to low consumer engagement. This finding shows that poorly designed LPs have low returns for SPs and subsequently affect the value consumers derive.

The authors widely acknowledge that LPs with poor designs tend to favour SPs over consumers. Inefficiently designed LPs demand more effort from consumers, leading to declining engagement. As a result, consumers may purchase without actively participating in the LP, losing the opportunity to earn loyalty points.

2.4.5 Hypothesis 1 (H1)

Consumers view the current LP designs as inefficient, necessitating more significant participation effort, which results in a reduced engagement rate and primarily benefits SPs.

2.5 Examining Consumer Inclination to Subscribe to a Technology Solution Used on LPs

This section examines whether consumers are interested in utilising an MSP implemented on LPs. That is if the MSP serves as a solution that streamlines their participation and enhances the value they derive. It examines previous studies to determine how consumers reacted to various technologies proposed as solutions for LPs. The section focuses on the themes of interconnection for MSPs, LPs, and consumer technology acceptance used in LPs.

According to Hagiu and Wright (2015), MSPs have been around for quite some time now, and lately, there has been an increasing interest in their economics. This revelation is evident from the fact that companies such as Amazon and Airbnb have implemented them. Otto and Jarke (2019) note that MSPs require both technical and ecosystem architectures as they are sociotechnical constructions.

According to a recent study by Bivona and Cosenz (2021), MSPs have the potential to turn consumers into co-creators with producers, which can contribute to the unique platform offer. However, there is a lack of research and knowledge on how MSPs can be utilised on LPs to simplify consumer participation and enhance the value they receive.

2.5.1 Interconnection for MSPs and LPs

This section of the literature review delved into the relationship between MSPs and LPs, examining if studies explored the use of MSPs on LPs for any purpose. By investigating existing research on the interconnection between these two concepts, the study aimed to ascertain whether customers are inclined to embrace such MSPs if integrated into LPs.

In contrast, the literature review did not reveal any studies that explored the direct relationship between MSPs and LPs. However, some studies indicated that it is possible to implement MSPs on LPs and improve participation, engagement and value. This is its application in other organisations, such as Uber and Airbnb,

which have successfully implemented MSP, as Bivona and Cosenz (2021) observed. Due to its network effects capability, which uses the BASS model and equation, The MSP can potentially enable SPs to attract more consumers to enrol in their programmes. According to Otto and Jarke (2019), MSPs facilitate the formation of business ecosystems, which result from the interactions of platform users.

Hagiu and Wright (2015) investigated a new phenomenon where firms move from vertical integration to MSP models. The study found a rising interest in MSP economics (e.g., Airbnb, eBay, Uber, and Xbox). This study's findings indicated that MSPs simplify user journeys and create value for consumers. Applying the assumptions and principles of TAM would suggest that consumers will be willing to adopt MSPs as solutions to enhance traditional business models. This willingness for acceptance would include their application on LPs to enhance value.

Abdelkafi et al. (2019) investigated the evolution of alliance-driven MSPs. It revealed that MSPs act as matchmakers, connecting interdependent user groups. This study shows that consumers have accepted MSPs because they create value. Bivona and Cosenz (2021) assessed the framework used to evaluate MSP business models. The study found that to measure the success of MSPs, the focus should be on the value they generate for stakeholders.

Most authors concurred that MSPs can facilitate interactions between multiple parties. However, no direct statement affirms that MSPs can deliver value to LPs. The MSP's success in other use cases demonstrates that it is possible to enhance LP value. It is imperative to note that some authors identify consumer value as a crucial success indicator for MSPs. This study observation is significant because it aims to reduce transaction costs and provide value to all stakeholders. This observation is also in line with TAM principles and assumptions.

2.5.2 Consumer Technology Acceptance on LPs

This section of the literature review examined factors influencing consumers' willingness to adopt technological solutions to simplify their participation in LPs while enhancing the perceived value they receive. Reading existing research on technology adoption models, user attitudes towards innovation, and the perceived benefits of technology-enabled LP experiences. This study aimed to clarify the determinants driving consumer technology acceptance behaviours and attributes.

Consumer participation and user journeys on current LPs are complex. Therefore, the use of technology to enhance customer engagement and value must be investigated and explored. Employing technology on LPs may enable SPs to offer value-added services. This observation can help them retain existing customers and attract new ones. If the technology used in LPs benefits consumers, they would quickly adopt it; TAM also supports this sentiment.

Nastasoiu and Vandenbosch (2019) explored the best way to design customer loyalty reward programmes. The study's results supported the statement above. It found that SPs can offer more benefits to health-conscious consumers through technology on LPs. These benefits are achievable by providing programmes that aid in reducing the costs of dietary monitoring. The reduction is necessary because nutrition monitoring mobile applications demand extensive user input and time commitment. According to the study, consumers would embrace this technology, provided they realised the specified benefits.

Vatsa et al. (2023) studied using digital wallets to unlock LP potential in customer experience. The study's results support the findings of Nastasoiu and Vandenbosch (2019). It found that it is essential to use technology to meet consumer demand for secure and efficient purchases at any time. The study indicated a willingness to accept a solution that offered efficient purchases. This potential acceptance is because it would simplify their participation in LPs.

Channa et al. (2022) investigated the use of relationship benefits to capture customer loyalty. The study's results support the findings of Nastasoiu and Vandenbosch (2019) and Vatsa et al. (2023). The study found that innovative

technologies moderate the relationship between SPs and customer loyalty. This finding indicated that it would improve consumer engagement with LPs, and the improvement would be motivation for acceptance.

He et al. (2019) examined using social media to bring innovation to LPs. The study's results support the findings of Nastasoïu and Vandembosch (2019), Vatsa et al. (2023) and Channa et al. (2022). It revealed that this would enhance their engagement with LPs. The enhancement of their participation with LPs would motivate them to accept it.

Stourm et al. (2020) explored using big data to refocus LPs. The study's results support the findings of Nastasoïu and Vandembosch (2019), Vatsa et al. (2023), Channa et al. (2022) and He et al. (2019). It found that, because of technological advancements that will enable data analytics and insights. Using big data on LPs would significantly enhance LPs' design and administration. This enhancement would allow SPs to simplify consumer participation by offering personalisation and increasing engagement, leading consumers to embrace it.

Aluri et al. (2019) researched the potential use of machine learning to foster value creation through dynamic customer engagement on LPs. The study's results support the findings of the above Nastasoïu and Vandembosch (2019), Vatsa et al. (2023), Channa et al. (2022), He et al. (2019) and Stourm et al. (2020). The study found that the module with machine learning generated engagement and interest compared to the one without it.

Wang et al. (2018) explored the potential use of mobile applications to simplify customer participation in LPs. The study's results support the findings of Nastasoïu and Vandembosch (2019), Vatsa et al. (2023), Channa et al. (2022), He et al. (2019), Stourm et al. (2020) and Aluri et al. (2019). It revealed that consumers would benefit from reward convenience, encouraging more participation and increasing engagement. This observation indicates potential acceptance of the technology by consumers.

Behrouzi et al. (2023) scrutinised the potential use of blockchain technology on LPs. The study's results support the findings of Nastasoïu and Vandembosch (2019), Vatsa et al. (2023), Channa et al. (2022), He et al. (2019), Stourm et al.

(2020), Aluri et al. (2019) and Wang et al. (2018). The study found that the suggested technology can enhance the compatibility of LPs. Blockchain can achieve this through a universal token that generates more excellent value for SPs and consumers. Consumers will embrace it based on TAM assumptions and principles if they derive value from it.

Mohammadi (2020) investigated the potential use of gamification on LPs to improve engagement rates. The study's results support the findings of NastasoIU and Vandenbosch (2019), Vatsa et al. (2023), Channa et al. (2022), He et al. (2019), Stourm et al. (2020), Aluri et al. (2019), Wang et al. (2018) and Behrouzi et al. (2023). It found that gamification has the potential to enhance consumer engagement on LP. This finding is a potential acceptance of the gamification-enabled LPs based on TAM assumptions and principles.

Purohit and Thakar (2019) investigated technology's role in enhancing the effectiveness of LPs. The study's results contradict the findings of NastasoIU and Vandenbosch (2019), Vatsa et al. (2023), Channa et al. (2022), He et al. (2019), Stourm et al. (2020), Aluri et al. (2019), Wang et al. (2018), Behrouzi et al. (2023) and Mohammadi (2020). It found that it is not technology alone that determines its effectiveness. Instead, the organisational culture and the processes and procedures followed during its implementation are equally crucial for its success. This finding shows that technology may not simplify consumer participation in LPs if implementation neglects other factors. This observation means that if TAM assumptions and principles apply, consumers will not accept the technology.

Bayraktar et al. (2010) investigated using Radio Frequency Identification (RFID) technology on LPs to create differentiation in the market. The study's results support the findings of Purohit and Thakar (2019). It found that consumers were unwilling to adopt this technology because they feared exposing their data to cybercriminals. This refusal to adopt the technology is because consumers do not understand this technology's value to LPs.

Most authors agree that technology can assist in enabling LPs to reach their full potential and that there is potential for acceptance by consumers. Only a few indicated the opposite, suggesting that factors such as organisational culture play

a role in technology's success and fear of cybercrimes. Various authors have discussed innovative technologies, such as big data, digital wallets, blockchain, and social media, to refocus LPs. Some studies have shown that LPs can provide consumers with additional benefits beyond traditional rewards. For instance, dietary management is necessary for high-end consumers, and technology will be essential to achieve this benefit.

2.5.3 Hypothesis 2 (H2)

Consumers are more likely to subscribe to a technology solution that simplifies their participation in LPs if it enhances the value they derive from these programmes.

2.5.4 Conceptual Framework

In the conceptual framework depicted in Figure 2.1, arrows indicate the direction of influence between variables of interest. The efficiency of a loyalty programme's design is pivotal as it impacts its stakeholders' participation, engagement, and value distribution.

Consumers may opt to participate less if they perceive the loyalty programme's design to be complex. Thus, an ineffective loyalty programme design has a detrimental impact on participation effort (H1a). Furthermore, consumers may disengage with the LP if they perceive the participation effort as too high. Hence, an ineffective loyalty programme design negatively influences the engagement rate (H1b). Failure to fully engage in LPs during purchases may result in consumers losing loyalty points. This behaviour is often due to inefficient user journeys within, which can hurt value distribution (H1c). This observation is a significant issue since it will skew the value of LPs towards SPs and neglect consumers.

Incorporating technology into LPs can impact how consumers perceive the programme's design. This perception can ultimately lead to increased participation. This influence is because consumers feel less effort is required to engage with the programme. This perception would mean technology solution

positively influences participation effort (H2a). In addition, when consumers perceive that the level of effort required to participate in an LP is low, they are more likely to engage with it actively. Therefore, technology solution positively influences the engagement rate (H2b).

Finally, a high engagement rate indicates that consumers actively engage in all LPs to their fullest extent. This perception implies that they would not lose out on the loyalty points that are due to them. Therefore, technology solution positively influences value distribution (H2c).

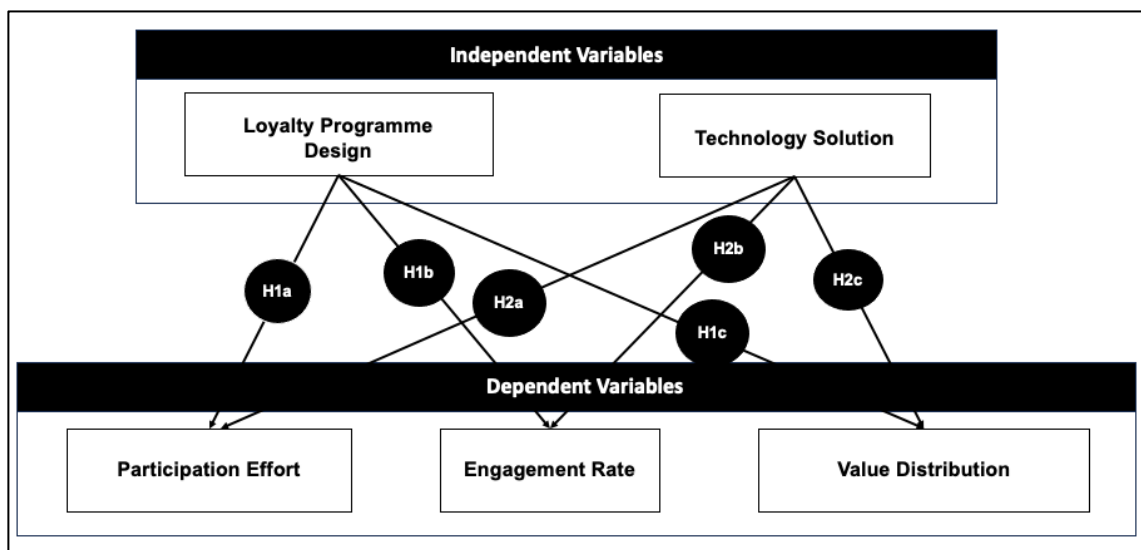


Figure 2.1 Conceptual Framework with Variables

Table 2.1 List of Variables of Interest

<i>Type</i>	<i>Variable</i>	<i>Description</i>
<i>Independent Variables</i>	Loyalty Programme Design	The way in which an LP is designed and structured.
	Technology Solution	A technological instrument or solution that streamlines and simplifies consumer participation in LPs in order to maximise the value derived.
<i>Dependent Variables</i>	Participation Effort	The effort and resources that consumers perceive are necessary to engage and participate actively in an LP.
	Engagement Rate	The frequency at which the consumer participates and interacts with an LP to accumulate and redeem loyalty points.
	Value Distribution	The degree to which the participants of an LP derive value from the LP in a balanced way.

2.6 Conclusion of Literature Review

The literature review analysis on LP design revealed a consensus among authors regarding its impact on consumers. Most authors concurred that poorly designed LPs negatively impact consumer participation efforts, engagement rates, and value distribution. This poor design leads to more consumers joining multiple LPs

but only participating in a few. The research underscored the misalignment between consumers' participation efforts and the value they receive from LPs. The findings emphasise the importance of designing efficient LP. This efficient design helps reduce participation effort, increases engagement, and ensures fair value distribution. Therefore, this necessitates further empirical research on consumer perceptions and expectations.

The literature review analysis on the potential integration of MSPs with LPs revealed a consensus among authors. This analysis is regarding the potential benefits and challenges. At the same time, there is agreement on the capability of MSPs to facilitate interactions among multiple parties. There is no direct evidence supporting their role in delivering value within LPs. However, the authors acknowledge the success of MSPs in other contexts, suggesting the possibility of enhancing LP. Therefore, this necessitates further empirical research on consumers' willingness to subscribe to MSP.

2.6.1 H1: Conclusion

The literature review revealed that consumers find existing LPs inefficient due to their complex design structures and user journeys. These inefficiencies may deter them from participating in the programmes and skew value towards SPs.

2.6.2 H2: Conclusion

The literature review revealed consumers would subscribe to an MSP if deployed on LPs to simplify participation and enhance value. This willingness will be if the MSP simplifies their involvement and enhances the value they derive based on TAM's assumptions and principles.

CHAPTER 3. RESEARCH METHODOLOGY

The literature review was conducted on two research objectives. The first objective was to explore consumer perceptions of LP designs, while the second objective was to examine their willingness to subscribe to a technology solution that enhances LP's value. The review guided the formulation of two hypotheses, H1 and H2.

A research gap was also identified regarding the primary emphasis on LPs being on SPs neglecting consumers. This chapter discusses the research methodology used to achieve the objectives by testing the hypotheses and attempting to close the identified research gap.

This chapter follows a clear structure. The initial section delves into the research approach, followed by the second section, which centres on the research design. The third section elaborates on the methods employed for data collection, while the fourth section discusses the population and sample. The fifth section provides details of the research instrument utilised, and finally, the sixth section outlines the data collection procedure.

The seventh segment focuses on the strategies used to analyse and interpret data, while the eighth section discusses the study's potential limitations and challenges. The ninth section concentrates on quality assurance, while the tenth addresses ethical considerations. The eleventh section describes the proposed schedule and timeline for the research.

3.1 Research approach

The research employed quantitative research methodology. This method helped the study identify correlations between independent variables and dependent ones. This activity aimed to establish cause-and-effect relationships and make predictions, as indicated by Fukushima et al. (2016). In addition, it provided exhaustive insights regarding the two research objectives.

A survey was administered to a sample of LP members. This quantitative analysis enabled the study to investigate consumers' perceptions of current LP designs and their impact on participation effort, engagement rate, and value distribution. It also assisted in determining whether consumers are willing to subscribe to a technology solution that simplifies their participation in LPs.

The study utilised regression analysis to test the two hypotheses. The research explored the correlation between loyalty program design, participation effort, engagement rate, and value distribution to test H1. It further examined the correlation between technology solution, participation effort, engagement rate, and value distribution to test H2. The study was conducted in two parts. First, a survey questionnaire was administered using the Qualtrics platform. Second, the data was analysed using SPSS software.

3.2 Research design

The study used a quantitative approach to achieve the two research objectives by testing the two hypotheses. This approach enabled an in-depth investigation of consumer perceptions and experiences about current LP designs. It further assessed consumers' willingness to subscribe to a technology solution that enhances the value they derive from LPs.

A survey questionnaire was administered and distributed to a sample of LP members. The survey included questions that evaluated the correlation between variables: loyalty programme design, participation effort, engagement rate and value distribution to test H1. It also had questions that assessed the correlation between variables: technology solution, participation effort, engagement rate and value distribution to test H2.

3.3 Data collection methods

The study employed a quantitative data collection method to gather data from respondents via the Qualtrics platform. This activity was achieved through a survey questionnaire based on Likert scale questions. The survey was administered to a sample of LP members to ensure diversity in demographics.

These demographics included age, occupation, and number of LPs per respondent.

The research surveyed various respondents to ensure diversity in LP experiences and perceptions. The survey was distributed via multiple communication channels, such as social media, emails, and professional networks.

3.4 Population and sample

3.4.1 Population

This study's population comprised people living in RSA and subscribed to LPs in the country. These people have subscribed to multiple LPs within the retail and fuel industries, at least one programme per member. It consisted of diverse LP members with varying demographics, programme experiences, and perceptions. This diversity ensured that the results included various LP experiences and perceptions.

3.4.2 Sample and sampling method

The study sample comprised three hundred and eighty-nine respondents between the ages of 19 and 60 who are residents of RSA. These respondents represented numerous ethnic groups and genders. These are respondents whose occupations included (Unemployed, Self-employed, Entry-level/Junior, Intermediate/Mid-Level, and Senior Level). They subscribe to LPs ranging from a minimum of one to over seven. The inclusion criteria ensured they subscribed to at least one LP in fuel or grocery retail industries.

The study employed two sampling methods in sequence. It began with a non-probability sampling method known as convenience sampling. Subsequently, it transitioned to a non-probability sampling method known as snowball sampling.

The respondents were chosen based on their ease of access and availability while ensuring they met the inclusion criteria by applying convenience sampling.

Etikan et al. (2016) defined convenience sampling as a non-probability sampling technique used in research in which respondents or subjects are selected based on their ease of access and availability.

Because it is easy to implement, Simkus (2022) asserted that it can be a good starting point for initial or exploratory studies because it enables the collection of preliminary data and insights efficiently and quickly. Accordingly, it allowed the survey for this study to access the initial list of respondents. These respondents triggered snowball sampling when respondents shared the survey with their friends, families, and colleagues. Groves et al. (2011) indicated that convenience sampling is more accessible to acquire and implement than probability sampling methods, making it suitable for studies with limited resources and time constraints.

The second method that the study used is snowball sampling. Heckathorn (1997) defined snowball sampling as a non-probability approach to attract study volunteers, particularly for difficult-to-reach populations. It creates a "snowball effect" by recruiting new respondents through referrals from earlier participants (Heckathorn, 1997).

With snowball sampling, the survey extended the sample beyond the initial quotas. The study achieved this extension by recruiting additional respondents through referrals from existing ones. The extension happened when initial respondents accessed through the convenience sampling method referred other individuals who satisfied the study's inclusion criteria.

The snowball sampling allowed for the inclusion of respondents whom the convenience sampling may have missed. These respondents could be engaged in LPs or have relevant experiences and perceptions. The study repeated this procedure, producing a "snowball effect" and progressively increasing the sample size to three hundred eighty-nine respondents.

3.5 The research Instruments

The study used an online survey as a research instrument to collect data from the respondents. This instrument allowed the study to provide quantitative data to achieve the research objectives by testing the hypotheses.

The questionnaire was administered to a sample of LP members using the two sampling methods: convenience and snowball. The data was collected using the Qualtrics platform. The questionnaire used Likert scale questions to collect responses. The chosen research instruments ensured that respondents from different geographical locations within RSA were reached.

3.6 Procedure for data collection

The study used a survey questionnaire to collect quantitative data. The survey questions were based on a 5-point Likert scale to capture a wide range of LP perceptions and experiences. It was distributed to LP members via email, social media, and professional networks. The benefit of using surveys for this research is their ability to reach a broad audience and facilitate an efficient way of collecting quantitative data.

3.7 Data analysis strategies and interpretation

The study used regression analysis techniques to analyse the data. This analysis is applicable when analysing data collected using quantitative methods. Regression analysis is a reliable statistical method that facilitates examining relationships between variables and testing hypotheses (Uyanık & Güler, 2013). It assists in evaluating relationships' statistical significance and strength, providing empirical evidence to support or disprove hypotheses (Uyanık & Güler, 2013).

3.8 Limitations and challenges of the study

The study did not encounter any limitations or challenges. The methodology, sampling, and analysis were appropriate and produced the expected outcomes.

3.9 Quality Assurance

The section focuses on external validity, internal validity, reliability, and objectivity to ensure the quality assurance of the collected data.

3.9.1 Internal and External Validity

The study's validity was maintained by ensuring the results accurately measured what was intended and were presented truthfully. Validity was assessed through internal validity, which involved checking that questionnaires measured what they were designed to measure, and external validity, which was used to determine the generalisability of the findings to the broader population.

According to McDermott (2011), the concept of internal validity pertains to the precision of a study in portraying the cause-and-effect connection between different variables. External validity refers to generalising research results to other populations, settings, or conditions beyond the study's specific context (Lynch, 1999). The results of the validity tests for this study are presented in Table 4.5.

3.9.2 Reliability

The study's reliability of results was achieved using Cronbach's Alpha and inter-item correlations and scored a satisfactory value. The reliability results are presented in Table 4.1.

3.9.3 Objectivity

The study was conducted with neutrality and ensured no bias throughout the research process. The research ensured that the study's methods, data collection, and analysis were transparent.

3.10 Ethical Considerations

3.10.1 Informed Consent

The study provided the respondents with plain and comprehensive information regarding the study's objectives, procedures, risks, and potential benefits. It requested all respondents to provide informed consent to ensure they were completely aware of their voluntary participation.

3.10.2 Privacy and Confidentiality

The study maintained respondents' privacy and confidentiality throughout the research process. No personally identifiable information about the respondents was collected.

3.10.3 Data Protection

The data collected from respondents is stored and managed securely under applicable data protection laws and regulations. The data is only accessible to authorised people. The data will be retained for five years and deleted afterwards.

3.10.4 Minimisation of Harm

The research applied efforts to minimise any potential discomfort or damage to respondents. The survey allowed respondents to withdraw at any time without penalty, as participation would be entirely voluntary. The research procedures did not cause the respondents any physical, psychological, or emotional damage.

3.10.5 Data Accuracy and Transparency

The study ensured that the procedures for collecting data guarantee a precise and open design. The responses were documented and analysed accurately and objectively. Any limitations or potential biases in the research design or data collection process were openly disclosed.

3.10.6 Ethical Approval

The research adhered to the ethical guidelines and regulations of WBS' Post-Graduate Committee. The proposal was submitted to the WBS Post-Graduate Committee for ethical evaluation and approval. The committee approved the research proposal and provided an ethics certificate.

3.10.7 Respect for Diversity and Inclusion

The study considered respondents' diverse cultural identities and sensitivities during data collection and analysis. Respondents from various demographic groups were included to ensure a representative sample.

3.10.8 Reporting and Dissemination

The study reported the research results with precision, objectivity, and transparency. Conflicts of interest or biases were disclosed. Research outcomes were disseminated through appropriate channels. The channels include academic publications, conferences, or reports to contribute to the field's body of knowledge.

CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents the results obtained from a comprehensive analysis of empirical research. The study derived the results from a quantitative survey among respondents in the South African environment. The chapter begins by outlining the questionnaire details and sample characteristics. It then moves on to outline the survey response rate and inclusion criteria. The inclusion criteria section includes respondents' consent to participate, residency status, and whether they have subscribed to LPs in the grocery or fuel retail sectors.

The chapter discusses the reliability and validity of the results, and this sets the groundwork for the subsequent sections. The following sections explore the respondents' demographics and distributional characteristics. The demographics section comprises age groups, occupation categories, and the number of LP subscriptions per respondent. At the same time, the distributional characteristics section consists of central tendency statistics, variability statistics, and distributional shapes.

The central tendency statistics employ mean, median, and mode metrics. At the same time, the variability statistics use standard deviation, variance, and range. The distributional shape utilises metrics such as skewness and kurtosis. The distributional characteristics section concludes by presenting histograms for each variable one at a time.

The chapter concludes by conducting regression analysis to examine the correlation between independent and dependent variables. The central focus of the research is around the two hypotheses, H1 and H2. The study performed a thorough analysis using SPSS software by running a linear regression.

4.2 Questionnaire Details and Sample Characteristics

The research utilised a survey questionnaire employing a five-point Likert scale, encompassing the following response options: (1) Strongly Disagree, (2) Somewhat Disagree, (3) Neutral, (4) Somewhat Agree, and (5) Strongly Agree.

The survey targeted respondents who lived in RSA and subscribed to LPs in the grocery and fuel retail sectors. Qualtrics platform was used to gather data from the respondents. The study used Questions 1, 2, 3, and 4 to exclude respondents who did not meet the inclusion criteria.

4.3 Survey Response Rate and Inclusion Criteria

This section presents a concise overview of the survey response rate and the exclusions made. The survey received four hundred and fifty-three responses, of which three hundred and eighty-nine were valid, which accounted for (85.9%) of the dataset.

Rogelberg and Stanton (2007) indicated that a higher response rate leads to larger data samples, statistical power, and narrower confidence ranges for sample statistics, leading to broader inclusive results.

The inclusion and exclusion criteria were carefully applied, excluding sixty-four cases, accounting for (14.1%). The careful application of the inclusion criteria improved the validity and reliability of the results.

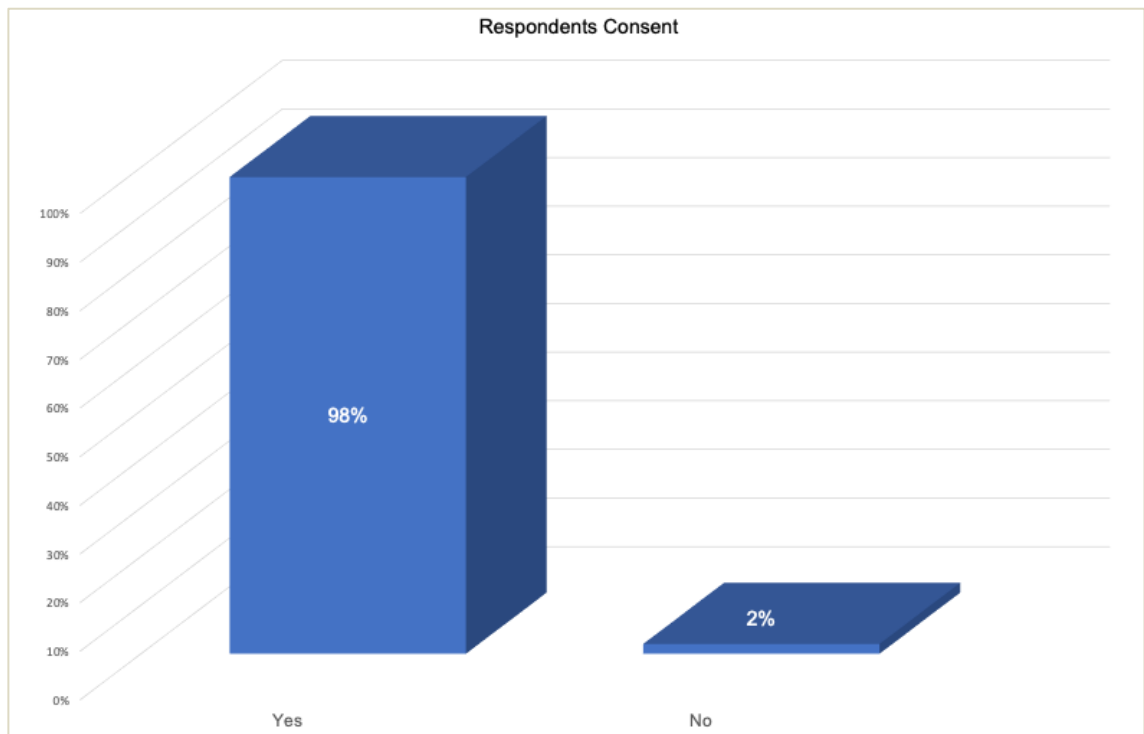


Figure 4.1: Respondents Consent

Figure 4.1 presents respondents' consent to engage in the research and details of the distribution. As many as four hundred forty-one respondents consented to participate in the study. This number accounted for about (98%) of respondents who participated in the research. However, about seven respondents, who accounted for (2%) declined to consent, and they were excluded from the survey.

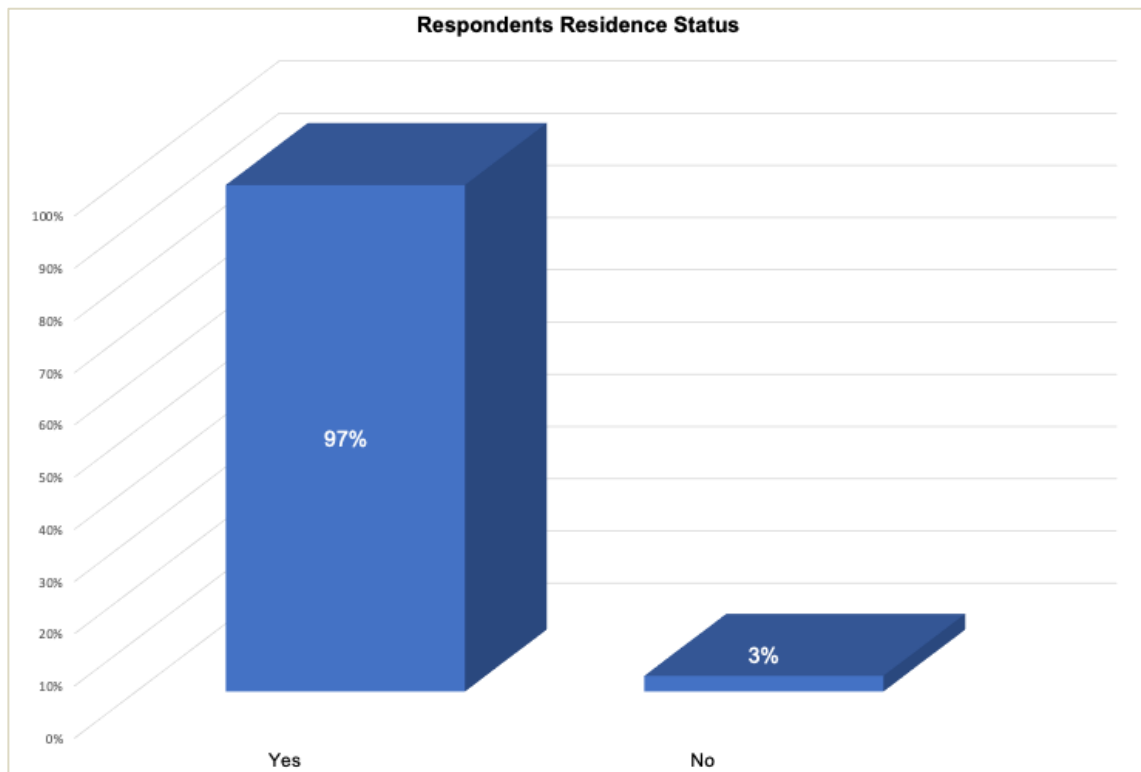


Figure 4.2: Respondents Residence Status

Figure 4.2 categorises respondents by residency status according to the survey's geographical focus on RSA. Incredibly, (97%) indicated they lived in RSA. Only (3%) indicated they lived outside RSA and were excluded from the survey. The complete alignment with the desired respondent profile strengthened the survey's validity, making the research results more relevant to the South African environment.

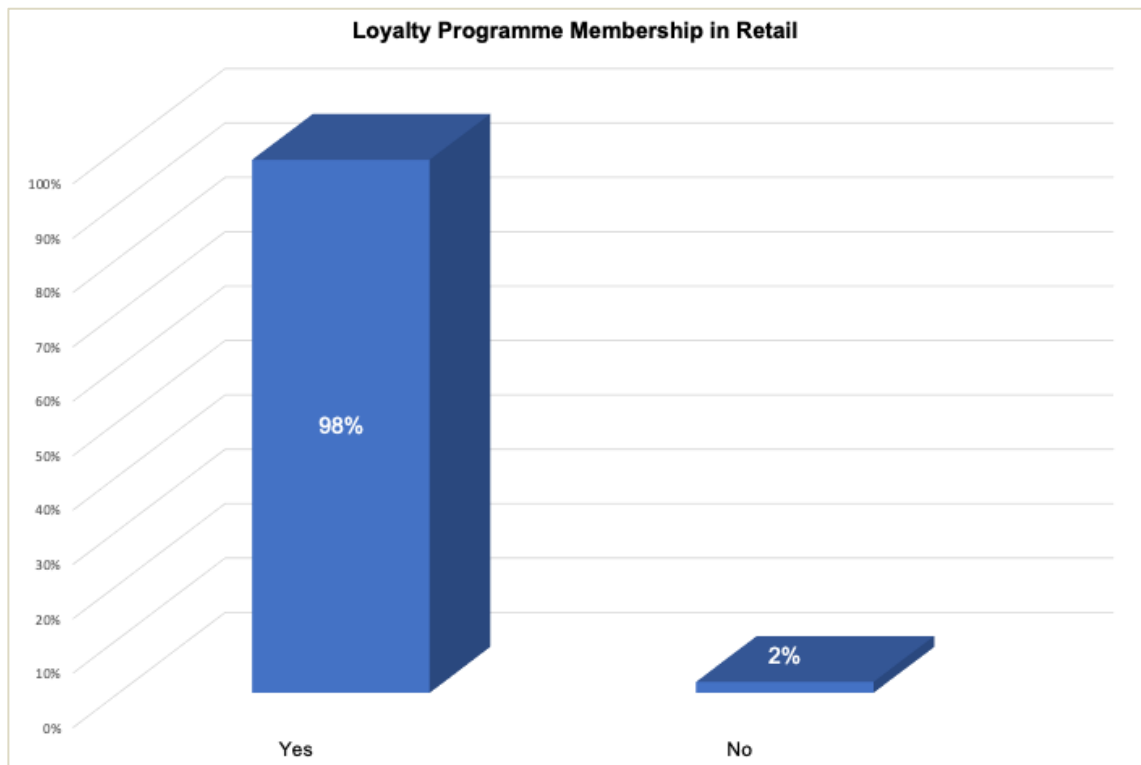


Figure 4.3: Retail Loyalty Programme Membership

Figure 4.3 shows how respondents' qualifying conditions match the survey's focus on grocery and fuel retail LP members. A staggering, (98%) indicated they had LP memberships in grocery or fuel retail sectors, meeting the research's criteria. Only (2%) did not have LP memberships in these sectors, and they were excluded from the survey.

The collected data was directly relevant to the study's objectives by strictly adhering to the survey's inclusion criteria. This criterion strengthened the validity of the research results, explicitly focusing on respondents who subscribed to LP memberships in the grocery and fuel retail sectors.

4.4 Reliability and Validity of Results

This section discusses the reliability and validity of statistics to assess all five variables. The research employed Cronbach's Alpha and inter-item correlations to test for reliability. It further utilised Kaiser-Meyer-Olkin Measure (KMO) and Bartlett's Test of Sphericity to test for validity.

Table 4.1: Cronbach's Alpha

<i>Cronbach's Alpha</i>	<i>Cronbach's Alpha Based on Standardized Items</i>	<i>N of Items</i>
0.548	0.536	5

Table 4.1 shows the survey results for reliability statistics in this research report. The five-item Cronbach's Alpha coefficient of 0.548 confirmed reliability. The coefficient score of 0.548 indicated moderate internal consistency among the examined items. Although the appropriate Cronbach's Alpha score ranges between 0.70 and 0.95, it may have a score lower than 0.70, and the number of items examined, which was less than ten, influenced the score (Tavakol & Dennick, 2011), as it was the case for this study which examined five items.

According to Christmann and Van Aelst (2006), Cronbach's Alpha is a popular metric for internal consistency that measures how sound scale or instrument items measure the same notion. Emerson (2019) indicated that a higher value of Cronbach's Alpha indicates more data reliability and internal consistency.

Table 4.2: Summary Item Statistics

	<i>Mean</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Range</i>	<i>Maximum / Minimum</i>	<i>Variance</i>	<i>N of Items</i>
<i>Inter-Item Correlations</i>	0.076	-0.099	0.362	0.461	-3.650	0.024	5

Table 4.2 presents the summary item statistics results for variables loyalty programme design, participation effort, engagement rate, value distribution and technology solution. Range and variance indicated that item responses are heterogeneous. The mean, minimum, and maximum numbers revealed the data's central tendency and distribution.

The mean inter-item correlation of 0.076 indicated a positive but low relationship between items. Some items may have had an inverse association due to the negative minimum correlation. The Maximum/minimum ratio of -3.650 suggested outliers or extreme numbers.

Table 4.3: Item Statistics

<i>Variable</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>N</i>
<i>Loyalty Programme Design</i>	2.94	0.747	404
<i>Participation Effort</i>	3.25	0.757	401
<i>Engagement Rate</i>	2.80	0.827	404
<i>Value Distribution</i>	3.16	1.327	397
<i>Technology Solution</i>	3.64	0.684	389

Table 4.3 shows the tested variables' item statistics, showing a snapshot of central tendency and variability statistics. The mean values showed respondents' average construct perceptions or levels. A mean of 2.94 indicated reasonable efficiency in loyalty programme design. Participation effort averaged 3.25, which suggested moderate effort; meanwhile, the engagement rate averaged 2.80, which showed moderate LP engagement. Value Distribution had a mean of 3.16, which meant intermediate stakeholder value distribution. Technology Solution had the highest mean of 3.64, demonstrating that respondents favour it.

Standard deviations revealed response variability around the mean. Lower standard deviations for loyalty programme design, participation effort, engagement rate, and technology solution showed respondents had similar perceptions or experiences. Value distribution had a more significant standard deviation of 1.327, which indicated more diversity in respondents' stakeholder value distribution perceptions.

Table 4.4: Cronbach's Alpha Item-Total Statistics

<i>Variable</i>	<i>Scale Mean if Item Deleted</i>	<i>Scale Variance if Item Deleted</i>	<i>Corrected Item-Total Correlation</i>	<i>Cronbach's Alpha if Item Deleted</i>
<i>Loyalty Programme Design</i>	46.96	40.475	0.259	0.518
<i>Participation Effort</i>	46.74	43.735	0.102	0.547
<i>Engagement Rate</i>	47.05	40.829	0.217	0.527
<i>Value Distribution</i>	46.70	41.518	0.177	0.536
<i>Technology Solution</i>	46.24	44.293	0.101	0.546

Table 4.4 presents Cronbach's Alpha item-total statistics, which assessed survey data reliability. It illustrated the survey item's internal consistency in depth. The study analysed the columns representing "Corrected Item-Total Correlation" and "Cronbach's Alpha" to determine how they affected the scale's reliability.

The analysis demonstrated that every item had a favourable impact on the overall reliability of the survey. The corrected item-total correlations ranging from 0.101 to 0.259 show this good reliability (Nezlek, 2017). Furthermore, Cronbach's Alpha values, ranging from 0.518 to 0.547, indicate satisfactory internal consistency.

The above Cronbach's Alpha values are acceptable because the study examined items less than ten (Nezlek, 2017), which is five. All variables had positive corrected item-total correlations, indicating that each item is positively related to the assessed construct.

Table 4.5 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. 0.500

<i>Bartlett's Test of Sphericity</i>	Approx. Chi-Square	116.691
	df	10
	Sig.	<0.001

The validity test results revealed crucial information regarding the KMO measure of sampling adequacy and Bartlett's test of sphericity for the variables. The KMO score of 0.500 indicated that the sampling adequacy was moderate. In addition, Bartlett's test of sphericity, with an approximate chi-square value of 116.691 and a significance level of less than 0.001, confirmed that the correlation matrix is significantly different from an identity matrix, thereby supporting the factorability of the data.

The KMO measure is a statistical tool that gauges the sample's fitness for factor analysis (Dziuban & Shirkey, 1974). For Exploratory Factor Analysis, the sample size is adequate if $KMO \geq 0.5$ and the Bartlett test is significant (Hill, 2011). Despite its moderate score of 0.500 for this study, the variables may be appropriate for this type of analysis. Bartlett's test of sphericity reinforced this notion by revealing non-zero correlations between the variables, which are indicative of underlying factors. These findings implied that the variables were suitably related for joint analysis. Hence, it was deemed feasible to proceed with regression analysis as planned.

4.5 Demographics

This section discusses the demographics that are important for the research. The demographics in question are respondents' age group, occupation categories, and number of LPs per respondent.

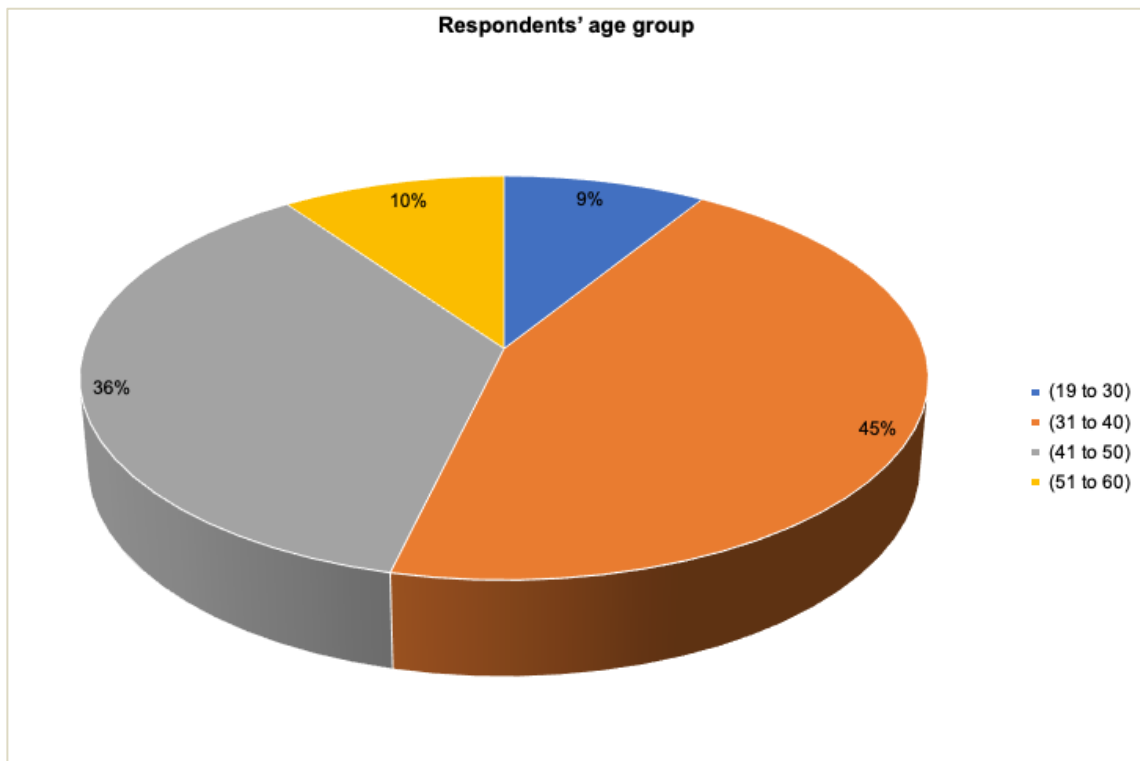


Figure 4.4: Respondents' Age Group

Figure 4.4 shows the age distribution of survey respondents. About (9%) of respondents were within the (19 – 30) age group, while (45%) were within the (31 – 40) age group. Whilst about (36%) of respondents were within the (41 – 50) age group, demonstrating the survey's broad middle-aged coverage. In comparison, about (9%) of the respondents were within the age group (51– 60).

Including respondents from diverse age groups in the research enhanced the comprehensiveness of experiences and perceptions of LPs. It also enhanced the comprehensiveness of their willingness to subscribe to a technology solution that simplifies their participation in LPs.

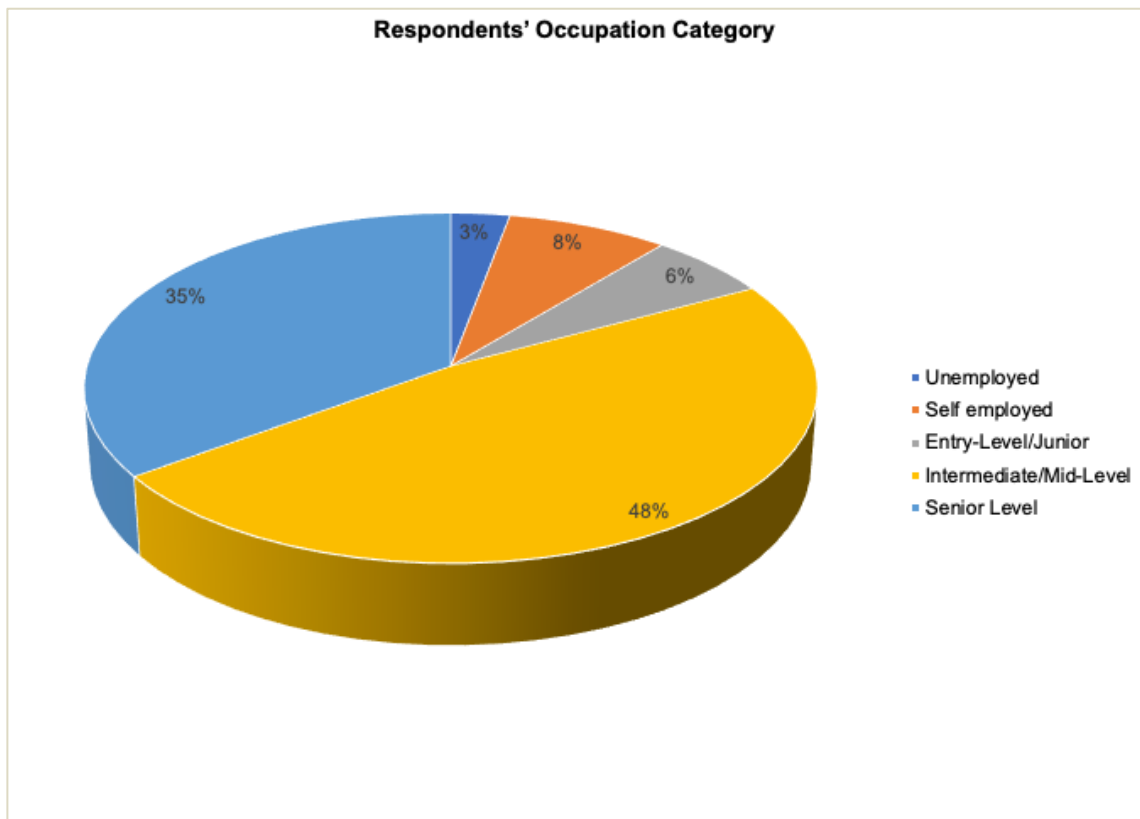


Figure 4.5: Respondents' Occupation Categories

Figure 4.5 illustrates the occupation categories of the survey respondents, demonstrating a wide variety. Approximately (3%) of the respondents were unemployed, constituting a relatively small proportion, whereas (8%) were engaged in self-employment. About (6%) comprised individuals in entry-level and junior roles.

A significant proportion of professionals, over (48%) of respondents, indicated they occupied intermediate or mid-level roles, suggesting a considerable number of individuals with moderate levels of expertise. Furthermore, a number (35%) of respondents were within the Senior level category, indicating a notable representation of individuals in leadership roles.

Including individuals from diverse occupational categories enriched the research by providing distinctive perspectives on how individuals within different roles perceive and experience LPs. This inclusion also provided unique perspectives on their willingness to subscribe to a technology solution that seeks to simplify their participation in LPs.

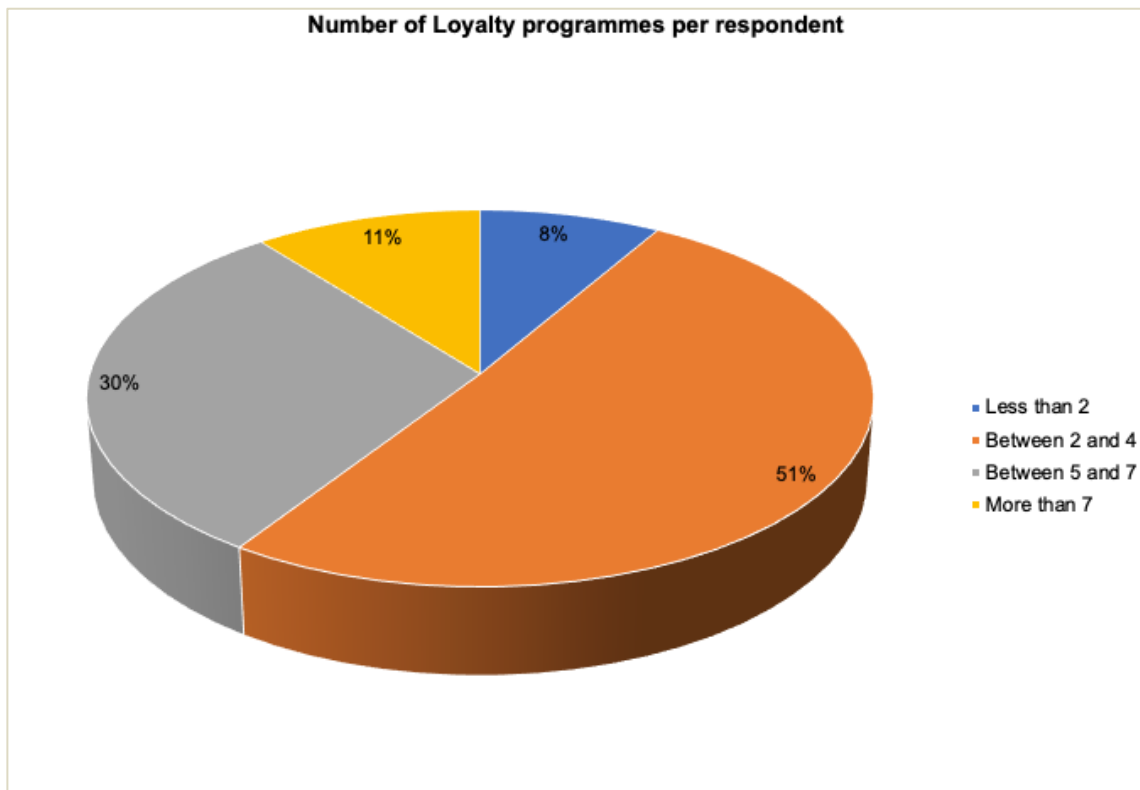


Figure 4.6: Number of Loyalty Programmes per respondent

Figure 4.6 above presents the distribution of respondents based on the number of LPs to which each member subscribes. Individuals with than 2 LPs comprised (8%) of the respondents, while (51%) were subscribed to between 2 and 4 LPs, indicating a significant majority. While (30%) of respondents were subscribed to between 5 and 7 LPs, highlighting a substantial portion, with (11%) of the respondents subscribing to more than 7 LPs.

The variation in the number of LPs to which respondents subscribe enhanced the research by offering valuable insights. This inclusion is how individuals with different numbers of LPs perceive and experience LPs. It also provided insights into their willingness to subscribe to a technology solution that seeks to simplify their participation in LPs.

4.6 Descriptive Statistics

This section focuses on descriptive statistical analysis for the main variables in the research. The section commences by examining the central tendency statistics for the five variables. Subsequently, it proceeds to examine statistics related to variability and distributional characteristics.

Table 4.6: Central Tendency Statistics

	<i>Loyalty Programme Design</i>	<i>Participation Effort</i>	<i>Engagement Rate</i>	<i>Value Distribution</i>	<i>Technology Solution</i>
<i>N</i>	404	401	404	397	389
<i>Mean</i>	2.9460	3.2502	2.8086	3.1637	3.6427
<i>Median</i>	3.0000	3.3333	2.6667	3.0000	4.0000
<i>Mode</i>	3.00	3.00	3.00	3.00	4.00

Table 4.5 presents central tendency statistics for variables loyalty programme design, participation effort, engagement rate, value distribution and technology solution. The mean score for loyalty programme design was 2.9460, suggesting that consumers generally regard LP designs as slightly below the scale's middle point. The median scored 3.0000, while the mean scored 3.00.

The mean for participation effort was 3.2502, suggesting a modest perceived effort is needed. The median scored 3.3333, while the mode had a value of 3.00, indicating a significantly biased distribution to the right. The mean for engagement rate was 2.8086, suggesting a moderate level of engagement. The median value was 2.6667, whereas the mode value was 3.00. The calculated mean for value distribution was 3.1637, indicating a modest sense of value distribution among

stakeholders, whilst the median was 3.0000 and the mode was 3.00. For the technology solution, the mean was 3.6427, with a median of 4.0000 and a mode of 4.00, indicating a considerable inclination for a technology solution that simplifies LP participation.

Hahs-Vaughn and Lomax (2020) described the metric mean as a valuable statistical measure that offers a solitary numerical representation that succinctly summarises the centre of the distribution. According to Bakker and Gravemeijer (2006), the median is a statistical measure of central tendency representing a dataset's middle value when arranged in ascending order. Landtblom (2023) defined mode as a measure of central tendency that signifies the value that appears most frequently in a dataset.

Table 4.7: Variability Statistics

	<i>Loyalty Programme Design</i>	<i>Participation Effort</i>	<i>Engagement Rate</i>	<i>Value Distribution</i>	<i>Technology Solution</i>
<i>N</i>	404	401	404	397	389
<i>Std. Deviation</i>	0.74714	0.75702	0.82769	1.32798	0.68447
<i>Variance</i>	0.558	0.573	0.685	1.764	0.468
<i>Range</i>	4.00	4.00	4.00	4.00	4.00

Table 4.6 presents variability statistics for variables loyalty programme design, participation effort, engagement rate, value distribution and technology solution. The loyalty programme design standard deviation was 0.74714. The variance was 0.558, indicating score concentration. The range was 4.00, signifying that the observed values cover the full scale. Respondents' perceptions of

participation effort varied moderately, with a standard deviation of 0.75702, a variance of 0.573 and a range of 4.00.

Engagement rate perceptions varied moderately, with a standard deviation of 0.82769, a variance of 0.685 and a range of 4.00. Regarding value distribution, the standard deviation was 1.32798, and the variance was 1.764. These values indicated a greater degree of variability in perceptions with a range of 4.00. The variable technology solution had a lower standard deviation of 0.68447, indicating moderate consumer variability in adoption with a range of 4.00.

According to Wachs (2009), standard deviation measures variation in data from the mean value. Variance measures data point dispersion statistically, the average of squared variations from the mean (Sawyer, 2009). Range is a simple statistic that measures data dispersion, calculated as the difference between a dataset's maximum and minimum values, as claimed by Garfield and Ben-Zvi (2005).

Table 4.8: Statistics Distributional Shape

	<i>Loyalty Programme Design</i>	<i>Participation Effort</i>	<i>Engagement Rate</i>	<i>Value Distribution</i>	<i>Technology Solution</i>
<i>N</i>	404	401	404	397	389
<i>Skewness</i>	-0.103	-0.493	0.216	-0.024	-1.673
<i>Std. Error of Skewness</i>	0.121	0.122	0.121	0.122	0.124
<i>Kurtosis</i>	-0.361	0.370	-0.492	-1.144	3.312
<i>Std. Error of Kurtosis</i>	0.242	0.243	0.242	0.244	0.247

Table 4.7 presents distributional characteristics statistics for variables loyalty programme design, participation effort, engagement rate, value distribution and technology solution. The distribution was slightly left-skewed because the loyalty programme design skews -0.103. Participation effort had a stronger negative skewness of -0.493, indicating a longer left tail and higher values.

A positive skewness of 0.216 indicated a distribution with a longer right tail and a concentration of lower values for the engagement rate. Value distribution had minimum skewness at -0.024, indicating symmetry. With a leftward skewness of -1.673, most respondents preferred the technology solution.

The loyalty programme design kurtosis was -0.361, indicating a flatter distribution than a normal distribution. A 0.370 kurtosis suggested a distribution with slightly heavier tails for participation effort. The engagement rate's -0.492 kurtosis indicated a flatter distribution. Value distribution had slimmer tails with a kurtosis of -1.144. The technology solution had a kurtosis of 3.312, indicating a heavier tail and higher peak.

According to Groeneveld and Meeden (1984), skewness is a statistical metric quantifying the degree of asymmetry or absence of symmetry in a dataset's distribution. Ho and Yu (2015) indicated that a positive skewness implies a distribution with a correct tail, indicating that more extreme values are on the high side, while negative skewness indicates a left tail, meaning more extreme values are on the low side.

A probability distribution's tailedness is measured by kurtosis, which measures a distribution's peakiness or flatness compared to a normal distribution, according to Groeneveld and Meeden (1984). Mardia (1970) claims that a less than zero kurtosis indicates a platykurtic distribution or is too flat, and if the value is large enough, the distribution may be concave. Mardia (1970) further indicates that a leptokurtic distribution has heavier tails and is taller than a normal distribution if the kurtosis value is positive.

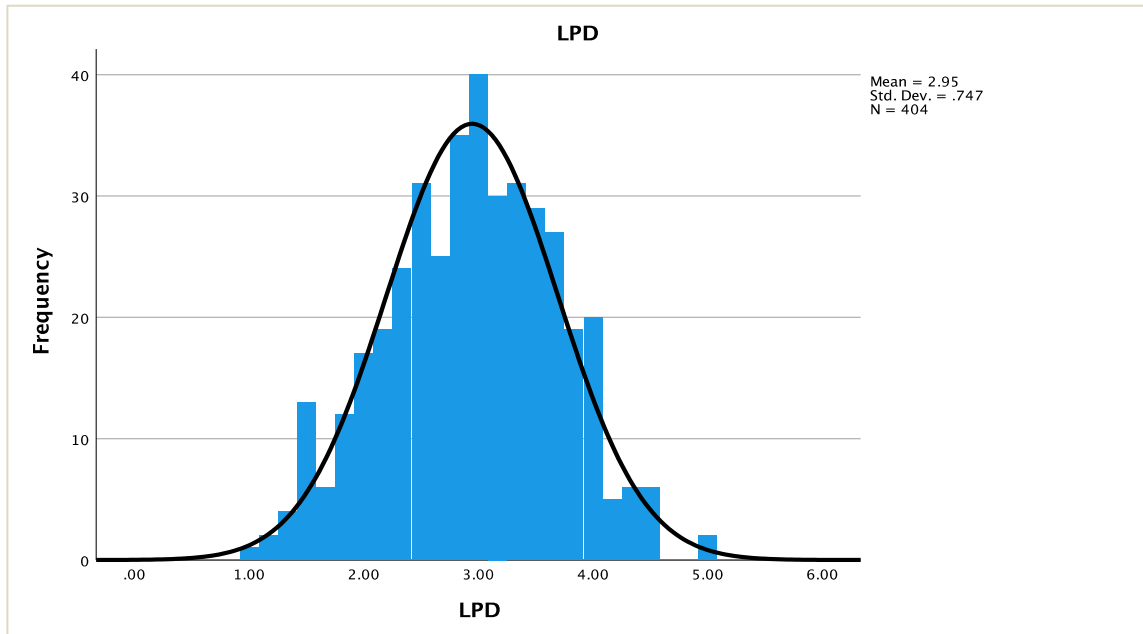


Figure 4.7: Loyalty Programme Design Histogram

Figure 4.7 illustrates a histogram analysis of the loyalty programme design variable, which indicates respondents' perceptions. Most responses were between (2.50 – 3.17), the highest at 3.00. With a mean of 2.95, respondents rated loyalty programme design just below the midpoint. The mean was moderately variable, with a 0.747 standard deviation.

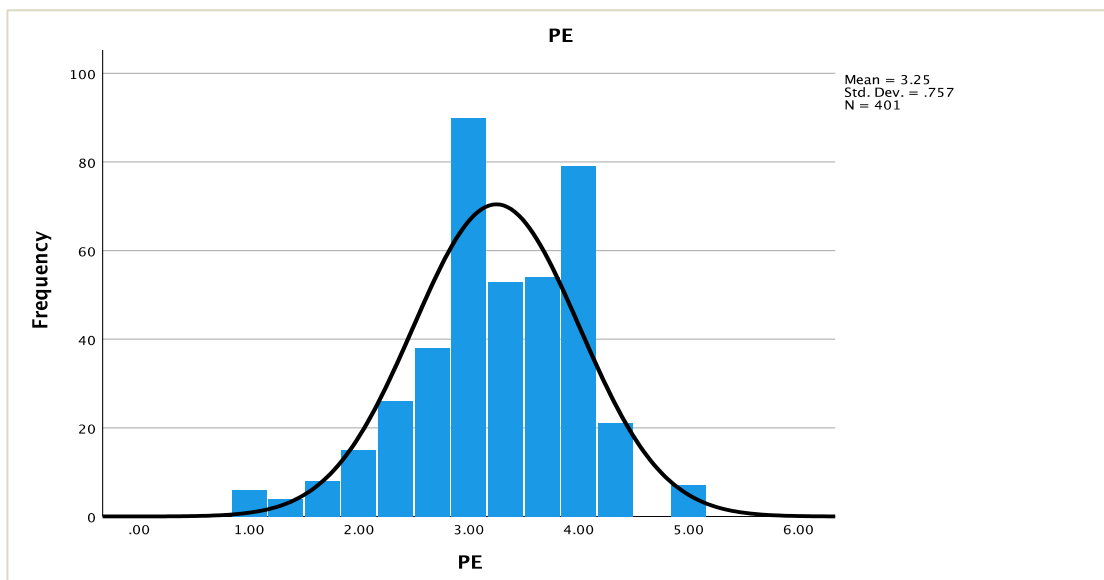


Figure 4.8: Participation Effort Histogram

Figure 4.8 presents a participation effort histogram, which shows respondents' views on LP participation effort. A mean value of 3.25 indicated that respondents rate participation effort just above the midpoint. Variability around the mean was considerable, with a standard deviation of 0.757. The histogram peaked at 3.00 and tailed towards higher scores of participant effort.

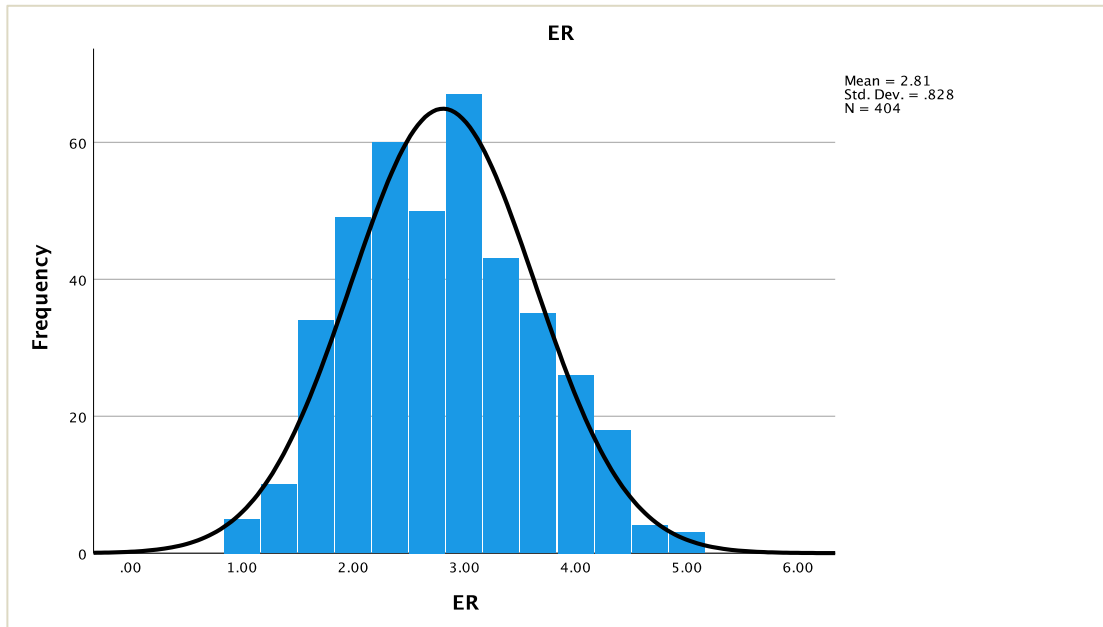


Figure 4.9: Engagement Rate Histogram

Figure 4.9 presents an engagement rate histogram which reflected respondents' LP engagement perceptions. Respondents scored the variable engagement rate at 2.81, just below the midpoint. Moderate variability around the mean was 0.828 standard deviation. An asymmetrical histogram with a peak at 3.00 indicated that many respondents scored the variable engagement rate as high.

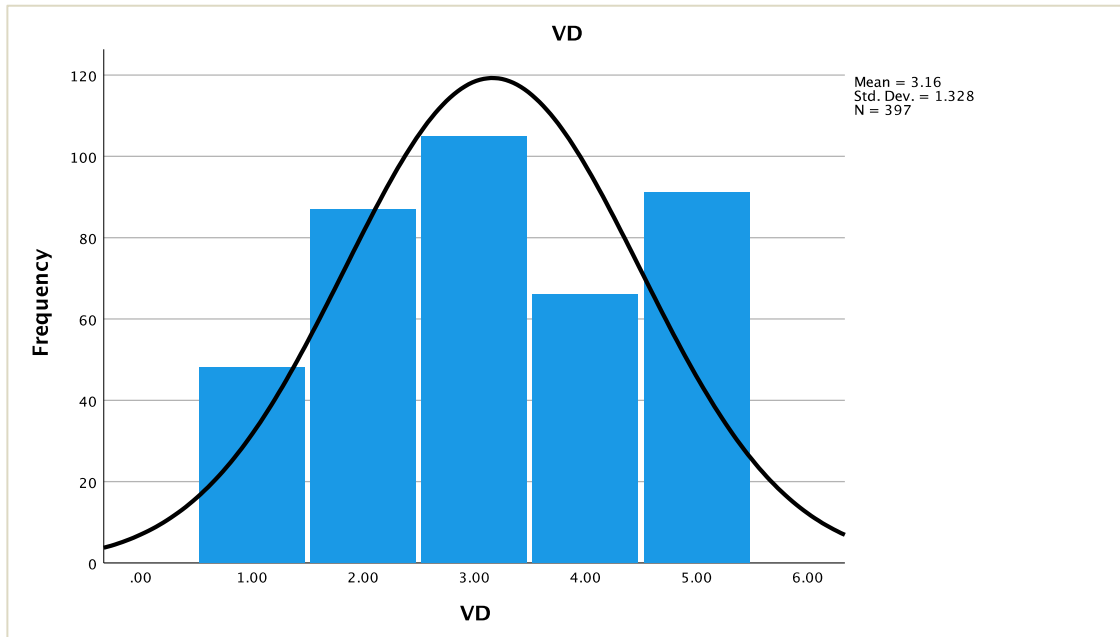


Figure 4.10: Value Distribution Histogram

Figure 4.10 presents the value distribution histogram, which reflects respondents' perceptions of the benefits of LPs amongst the stakeholders. The mean value distribution was 3.16, suggesting respondents evaluated it above the midpoint. A 1.328 standard deviation implied high diversity around the mean.

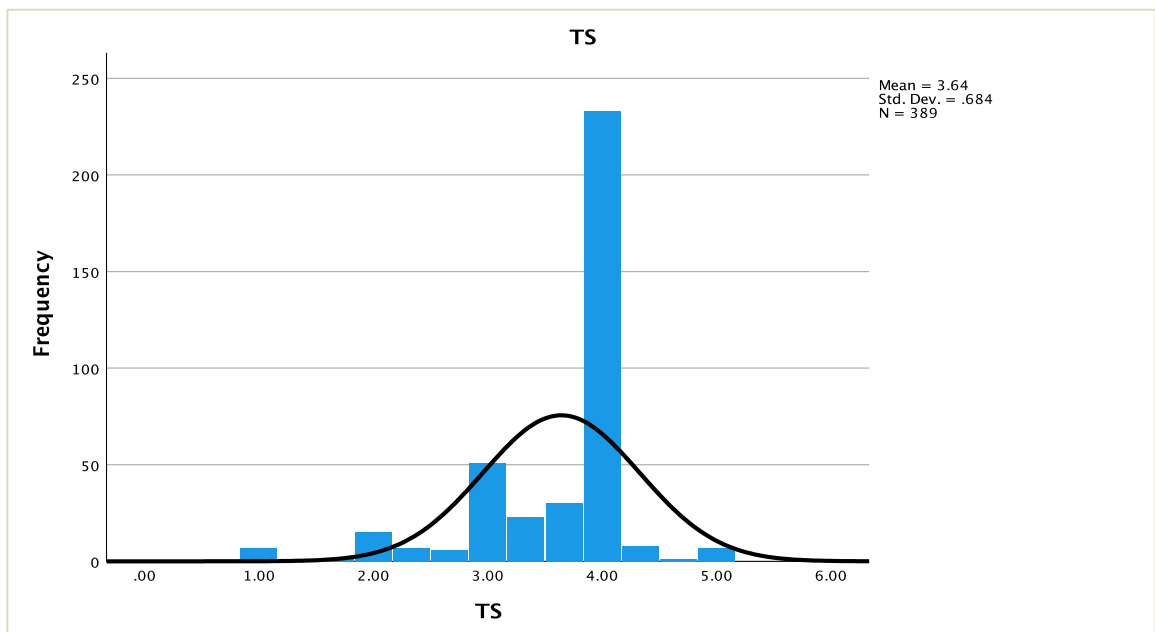


Figure 4.11: Technology Solution Histogram

The technology solution histogram in Figure 4.5 demonstrates the respondents' perspectives on simplifying LP participation with technology. The mean of 3.64, above the midpoint, and standard deviation of 0.684 indicated that responses were primarily positive. More than half of the respondents preferred the technology solution, as shown by the histogram's high value around 4.00.

According to Curran-Everett (2008), statistics uses the standard deviation to quantify value variance, which measures how much data points deviate from the dataset mean. An article by Lee et al. (2015) indicated that 68% of data falls within one standard deviation of the mean, 95% within two, and 99.7% within three in a normal distribution bell-shaped curve.

4.7 Regression Analysis

This section examines explicitly regression analysis to determine the impact of independent variables on dependent ones. The study utilised linear regression to test the two hypotheses. Linear regression produced three analyses. Model summary, analysis of variances (ANOVA) and regression coefficients.

The model summary used the R-squared value as a metric to test the correlation between independent and dependent variables. Independent variables explain the proportion of variance in the dependent variable, tested using the R-squared value (Cameron & Windmeijer, 1997).

ANOVA is a statistical technique utilised to determine the variances between two variables, as stated by St and Wold (1989). ANOVA uses multiple metrics, including the F-statistic and p-value (Chandrankantha, 2014). The F-statistic, a mean-to-variable ratio, is utilised to determine whether or not significant differences exist between the means of two variables, as defined by Wilcox et al. (1986). As Lynn Kelley and Sawilowsky (1997) state, a high F-value indicates that the disparities between the variables are more noticeable.

ANOVA utilises the p-value to determine whether observed differences among variables are statistically significant and is closely related to the F-statistic (Boos

& Stefanski, 2011). McIntosh (2015) states that a p-value below 0.05 supports rejecting the null hypothesis and accepting the alternative one.

Regression coefficients used unstandardised coefficients metric and the p-value to test the hypotheses. According to Clogg et al. (1995), regression coefficients estimate the change in the dependent variable for a one-unit change in the independent variable, holding all other variables constant.

4.7.1 H1: Exploring Consumer Perceptions: Impact of LP Designs on Participation, Engagement, and Value Distribution

This section examines how consumers perceive the influence of loyalty programme design on participation effort, engagement rate, and value distribution. The section is associated with RO1 and H1. The analysis employed ANOVA to verify the influence of variables on each other and test the hypothesis.

Table 4.9: Model Summary - LPD and PE

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.074 ^a	0.006	0.003	0.75586

a. Predictors: (Constant), Loyalty Programme Design

Table 4.9 shows a model summary for the loyalty programme design and participation effort. The R-squared value of 0.006 indicated that only 0.6% of the variance in participation effort was explained by loyalty programme design. Therefore, the results did not support H1.

Table 4.10: ANOVA^a - LPD and PE

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	1.271	1	1.271	2.224	0.137 ^b
	Residual	227.959	399	0.571		
	Total	229.229	400			

a. Dependent Variable: Participation Effort

b. Predictors: (Constant), Loyalty Programme Design

Table 4.10 presents an ANOVA analysis of the correlation between loyalty programme design and participation effort variables. The analysis indicated that the regression model lacked statistical significance ($F = 2.224$, $p = 0.137$). These results suggested that loyalty programme design did not influence participation effort. This observation demonstrated that the results did not support H1.

Table 4.11: Regression Coefficients^a - LPD and PE

<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	(Constant)	3.472	0.153		22.620	<0.001
	Loyalty Programme Design	-0.075	0.050	-0.074	-1.491	0.137

a. Dependent Variable: Participation Effort

Table 4.11 presents the regression coefficient results for the relationship between loyalty programme design and participation effort. The coefficient for loyalty programme design is -0.075, which suggests that participation effort decreased

by 0.075 units as the score increased. However, the coefficient was not statistically significant ($p = 0.137$), indicating that the results did not support H1.

Table 4.12: Model Summary - LPD and ER

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.360 ^a	0.129	0.127	0.77331

a. Predictors: (Constant), Loyalty Programme Design

Table 4.12 presents a model summary examining the relationship between loyalty programme design and engagement rate. The coefficient of determination, R-squared, was 0.129. This value indicated that loyalty programme design explained approximately 12.9% of the variance in engagement rate and therefore H1 was supported.

Table 4.13: ANOVA^a - LPD and ER

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	35.686	1	35.686	59.675	<0.001 ^b
	Residual	240.400	402	0.598		
	Total	276.086	403			

a. Dependent Variable: Engagement Rate

b. Predictors: (Constant), Loyalty Programme Design

Table 4.13 presents an ANOVA analysis of the correlation between loyalty programme design and engagement rate variables. The results showed a significant regression model ($F = 59.675$, $p < 0.001$). These results indicated that loyalty programme design greatly influenced engagement rate. This observation demonstrated that the results supported H1.

Table 4.14: Regression Coefficients^a - LPD and ER

<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	(Constant)	1.635	0.157		10.436	<0.001
	Loyalty Programme Design	0.398	0.052	0.360	7.725	<0.001

a. Dependent Variable: Engagement Rate

Table 4.14 presents regression coefficients for the analysis investigating the relationship between loyalty programme design and engagement rate. The coefficient for loyalty programme design was 0.398. This value suggested that for every one-unit increase in the score of loyalty programme design, the engagement rate increased by 0.398 units. This coefficient is statistically significant ($p < 0.001$), indicating a robust relationship between the two variables, meaning H1 was supported.

Table 4.15: Model Summary - LPD and VD

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.027 ^a	0.001	-0.002	1.32918

a. Predictors: (Constant), Loyalty Programme Design

Table 4.15 illustrates a model summary examining the relationship between loyalty programme design and value distribution. The coefficient of determination, R-squared, was 0.001. This value indicated that the loyalty programme design

explained only a tiny proportion of the variance in value distribution. These results did not support H1.

Table 4.16: ANOVA^a - LPD and VD

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	0.507	1	0.507	0.287	0.592 ^b
	Residual	697.850	395	1.767		
	Total	698.358	396			

a. Dependent Variable: Value Distribution

b. Predictors: (Constant), Loyalty Programme Design

Table 4.16 presents an ANOVA analysis of the correlation between loyalty programme design and value distribution variables. The results showed a non-significant regression model ($F = 0.287$, $p = 0.592$). These results suggested that loyalty programme design did not influence value distribution. This observation demonstrated that the results did not support H1.

Table 4.17: Regression Coefficients^a - LPD and VD

<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	(Constant)	3.023	0.271		11.148	<0.001
	Loyalty Programme Design	0.048	0.089	0.027	0.536	0.592

a. Dependent Variable: Value Distribution

Table 4.17 presents the regression coefficient results showing the impact of loyalty programme design on value distribution. The results indicated a coefficient of 0.048 for loyalty programme design. This value suggested that increasing the score of the loyalty programme design by one unit increased value distribution by

0.048 units. However, this coefficient was statistically insignificant ($p = 0.592$), and the results did not support H1.

4.7.2 H2: Examining Consumer Inclination to Subscribe to a Technology Solution used on LPs

This section examines explicitly if consumers are willing to subscribe to a technology solution that seeks to simplify LP participation and enhance the value they derive. The section is associated with RO2 and H2 and explicitly addresses the variables of technology solution, participation effort, engagement rate, and value distribution. The analysis primarily focuses on linear regression to ascertain the influence of variables on each other and test the hypothesis.

Table 4.18: Model Summary - TS and PE

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.099 ^a	0.010	0.007	0.74346
<i>a. Predictors: (Constant), Technology Solution</i>				

Table 4.18 presents a model summary examining the relationship between the technology solution and participation effort. The coefficient of determination, R-squared, was 0.010. This value indicated that the presence of a technology solution explained 1% of the variance in participation effort. These results indicated that H2 was supported.

Table 4.19: ANOVA^a - TS and PE

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	2.123	1	2.123	3.841	0.051 ^b
	Residual	213.910	387	0.553		
	Total	216.033	388			

a. Dependent Variable: Participation Effort

b. Predictors: (Constant), Technology Solution

Table 4.19 presents an ANOVA analysis of the correlation between technology solution and participation effort variables. It showed a marginally significant regression model ($F = 3.841$, $p = 0.051$). These results suggested a marginal chance that a technology solution influenced participation effort. This observation demonstrated that the results supported H2.

Table 4.20: Regression Coefficients^a - TS and PE

<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	(Constant)	2.854	0.204		13.964	<0.001
	Technology Solution	0.108	0.055	0.099	1.960	0.051

a. Dependent Variable: Participation Effort

Table 4.20 presents regression coefficients examining the relationship between technology solution and participation effort. The coefficient for the technology solution was 0.108. This value suggested that for every one-unit increase in the score of the technology solution, participation effort increased by 0.108 units. However, this coefficient is not statistically significant ($p = 0.051$). Therefore, the results did not support H2.

Table 4.21: Model Summary - TS and ER

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.030 ^a	0.001	-0.002	0.82974
<i>a. Predictors: (Constant), Technology Solution</i>				

Table 4.21 presents a model summary examining the relationship between technology solution and engagement rate. The coefficient of determination, R-square was 0.001. This value indicated that only a very small proportion of the variance in engagement rate was explained by the presence of a technology solution. These results indicated that H2 was not supported.

Table 4.22: ANOVA^a - TS and ER

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	0.233	1	0.233	0.338	0.561 ^b
	Residual	266.435	387	0.688		
	Total	266.668	388			
<i>a. Dependent Variable: Engagement Rate</i>						
<i>b. Predictors: (Constant), Technology Solution</i>						

Table 4.22 presents an ANOVA analysis of the correlation between technology solution and engagement rate variables. It showed a non-significant regression model ($F = 0.338$, $p = 0.561$). These results suggested that technology solution did not influence engagement rate. This observation demonstrated that the results did not support H2.

Table 4.23: Regression Coefficients^a - TS and ER

<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	(Constant)	2.933	0.228		12.860	<0.001
	Technology Solution	-0.036	0.062	-0.030	-0.582	0.561

a. Dependent Variable: Engagement Rate

Table 4.23 presents regression coefficients examining the relationship between technology solution and engagement rate. The coefficient for the technology solution was -0.036. This value suggested that for every one-unit increase in the score of the technology solution, the engagement rate decreases by 0.036 units. However, this coefficient was not statistically significant ($p = 0.561$). Therefore, the results did not support H2.

Table 4.24: Model Summary - TS and VD

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.022 ^a	0.000	-0.002	1.32730

a. Predictors: (Constant), Technology Solution

Table 4.24 presents a model summary examining the relationship between technology solution and value distribution. The coefficient of determination, R-squared, was 0.000. This value indicated that the presence of a technology solution explained no variance in value distribution. Therefore, the results did not support H2.

Table 4.25: ANOVA^a - TS and VD

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	0.320	1	0.320	0.182	0.670 ^b
	Residual	681.793	387	1.762		
	Total	682.113	388			

a. Dependent Variable: Value Distribution

b. Predictors: (Constant), Technology Solution

Table 4.25 presents an ANOVA analysis of the correlation between technology solution and value distribution variables. It showed a non-significant regression model ($F = 0.182$, $p = 0.670$). These results suggested that technology solution did not influence value distribution. This observation demonstrated that the results did not support H2.

Table 4.26: Regression Coefficients^a - TS and VD

<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	(Constant)	3.022	0.365		8.282	<0.001
	Technology Solution	0.042	0.098	0.022	0.426	0.670

a. Dependent Variable: Value Distribution

Table 4.26 presents regression coefficients examining the relationship between technology solution and value distribution. The coefficient for the technology solution was 0.042. This value suggested that for every one-unit increase in the score of the technology solution, the value distribution increased by only 0.042 units. However, this coefficient is not statistically significant ($p = 0.670$). Therefore, the results did not support H2.

4.8 Chapter Summary

This chapter analysed the impact of two independent variables, loyalty programme design and technology solution, on three dependent variables: participation effort, engagement rate, and value distribution. The data was cleaned, and a final sample of 389 valid responses was obtained, with demographic profiles based on age, occupation, and number of LP subscriptions discussed. The results were tested for reliability and validity and showed favourable values. Regression analysis was used to correlate the variables and test hypotheses. While some tests supported our hypotheses, others did not.

CHAPTER 5. DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter discusses the results of the empirical study. The chapter compares these results with past studies reviewed for various themes. The process discusses the results of the two hypotheses, beginning with H1 and ending with H2.

The chapter provides the regression analysis results to determine the acceptance or rejection of H1. The study investigated the correlation between loyalty programme design, the independent variable, participation effort, engagement rate, and value distribution, the dependent variables. After each analysis, the study compared the results with previous research and concluded on H1's acceptance or rejection.

The next part of this chapter focuses on the results of a regression analysis to determine whether H2 should be accepted or rejected. The study examined the correlation between technology solution, the independent variable and participation effort, engagement rate, and value distribution, the dependent variables. After each discussion, the results were compared with previous research to decide whether H2 should be accepted or rejected.

The chapter's final section summarises the conclusions from previous studies and empirical research. The number of studies that provided evidence to support each hypothesis was analysed. These results were compared with the number of studies that did not support the hypotheses; based on the results, a conclusion was made.

5.2 H1: Exploring Consumer Perceptions: Impact of LP Designs on Participation, Engagement, and Value Distribution

This section discusses and explains the regression analysis results conducted to test H1. The analysis correlated independent variables with dependent ones using a linear regression. The study compared all the results with past research to identify similarities and differences.

5.2.1 Loyalty Programme Design and Participation Effort

A regression analysis was conducted to establish whether the independent variable loyalty programme design affects the dependent variable participation effort. The results of this analysis are presented in Table 4.9 – Model Summary, Table 4.10 - ANOVA, and Table 4.11 – Regression Coefficients. The findings indicated that there was no correlation between the two variables. Therefore, this demonstrated that H1 was not accepted.

The results of the empirical research were unexpected, as none of the previous research studies reported similar outcomes. The initial expectation was that an inefficient loyalty programme design would negatively impact consumer participation effort while an efficient design would have a positive impact. Past research has shown a correlation between these two variables, which supports this expectation.

According to a study by Sharma and Verma (2014), the design of loyalty programmes should aim to simplify consumer participation. To avoid discouraging consumers from participating by requiring too much effort. Research by Wang et al. (2019) revealed that consumers are often dissatisfied with the rewards they receive compared to the effort required to accumulate them. This observation implied that poorly designed LPs can negatively impact customer participation efforts.

A study by Xiao et al. (2023) revealed that when LPs are more transparent with information, consumers exert less effort when participating. This revelation

indicated that a well-designed LP positively impacts consumer participation. Another study by Danaher et al. (2016) found that consumers expressed dissatisfaction with their rewards compared to their participation efforts. The study suggested that inefficient LPs can negatively impact consumer participation.

According to a study by Kivetz and Simonson (2002), consumers were dissatisfied with an LP that required them to make eight purchases to accumulate points. This finding indicated that an LP with a poorly designed structure affects consumers' willingness to participate.

Yi and Jeon (2003) discovered that consumers preferred receiving instant rewards to avoid the inconvenience caused by waiting. This finding suggested that consumers preferred LP designs that required minimal participation effort. The design of an LP can impact the level of participation effort needed, as demonstrated by a study by Le Roux (2019). The study found that consumers are more likely to join LPs that are easy to join. Therefore, LPs that require less participation effort tend to attract more participants.

5.2.2 Loyalty Programme Design and Engagement Rate

A regression analysis was conducted to investigate the impact of loyalty programme design on the engagement rate, which is the dependent variable. The results of this analysis are presented in Table 4.12 – Model Summary, Table 4.13 - ANOVA, and Table 4.14 – Regression Coefficients. The findings indicated a correlation between the two variables. Therefore, this demonstrated that H1 is accepted. The results of the empirical research were expected and supported by past research, except for one study that indicated otherwise regarding the correlation between the two variables.

According to research by Bowen and Chen McCain (2015), personalising LPs to meet the needs of different generations during design can attract millennials and encourage their participation.

According to a study conducted by Bruneau et al. (2018), most consumers find it easy to sign up for multiple LPs, but they tend to participate in only a few of them.

According to the study, the reason behind this issue is the poor design of the LPs, which makes them inefficient. The study suggested that consumers do not engage fully with their LPs.

A study by Meyer-Waarden et al. (2023) found that although many consumers join LPs, they only participate in a few. This finding indicated that the inefficient design of these programmes impacts the engagement rate. Similarly, Mauri (2002) found that supermarket consumers joined LPs but only engaged with a few. This finding suggested that consumers cannot fully engage with LPs with inefficient designs.

A research study conducted by Hörold et al. (2016) discovered that when the waiting period for reward eligibility is lengthy, consumers tend to engage less with the LP. This finding is consistent with another study by Ashley et al. (2016), whose results indicated that low engagement rates could be due to an inefficient design of the LP.

A study by Mimouni-Chaabane and Volle (2010) discovered a completely different finding. It revealed that convenience is not the only factor determining consumers' engagement with LPs. The study demonstrated that LPs can be inefficient and complicated to engage. However, consumers will continue to engage if they perceive value from them.

5.2.3 Loyalty Programme Design and Value Distribution

A regression analysis was performed to determine if the independent variable loyalty programme design influenced the dependent variable value distribution. The results of this analysis are presented in Table 4.15 – Model Summary, Table 4.16 - ANOVA, and Table 4.17 – Regression Coefficients. These results revealed no correlation between the two variables, demonstrating that H1 was not accepted.

The results of the empirical research were not expected; the expectation was that the two variables would correlate. The results from empirical research contradicted all the literature reviewed regarding this analysis. The findings from

all examined studies consistently demonstrated a correlation between loyalty programme design and value distribution.

According to a study by NastasoIU and Vandembosch (2019), providing personalised offers, unique rewards, and additional services can result in more excellent consumer value. The study found that LP designs prioritising personalisation can enhance the value for SPs and consumers. This revelation aligned with the findings of another study by Kovač et al. (2018). The study also emphasised that personalised offers aim to increase the value that consumers receive from LPs. The study also discovered that consumers are more engaged with LPs when they feel valued.

According to a study by Vatsa et al. (2023), poorly designed LPs result in high expenses and low ROI. This finding implied that such LPs do not benefit the SP or the consumer. This finding aligned with another study by Fourie et al. (2023). The study revealed that inadequately structured LPs are ineffective and have a low ROI due to low consumer engagement. Therefore, poorly designed LPs have low returns for SPs. This results in a negative impact on the value that consumers derive.

Vatsa et al. (2023) and Fourie et al. (2023) revealed results similar to the findings by Kreis and Mafael (2014), which showed that certain customer motives are related to different types of perceived value. However, LP designs influenced these correlations. Başıgöze et al. (2021) discovered that LP designers mostly create LPs to benefit SPs more than consumers. This finding suggested that the value of inefficient LP designs benefits only the SPs.

A study by Kim et al. (2013) supported the findings by Başıgöze et al. (2021). The study revealed that consumers do not benefit from inefficiently designed LPs. Esmark et al. (2016) indicated that designers of LPs should adjust their structure to fit the needs of their consumers and overall business strategy. These findings implied that consumers perceive current LP designs as exclusively advantageous for SPs, ignoring their interests.

5.2.4 H1: Conclusion

Past research on the relationship between loyalty programme design and three variables, participation effort, engagement rate, and value distribution, was reviewed to test the H1. The review results revealed a correlation between loyalty programme design and participation effort, as indicated by all the studies reviewed. In terms of engagement rate, five out of six studies showed a correlation between loyalty programme design and engagement rate, while one study revealed opposite results. Finally, all the reviewed studies revealed a correlation between loyalty programme design and value distribution.

After collecting quantitative data, the study used regression analysis to test H1. The study revealed no correlation between loyalty programme design and participation effort. However, there was a correlation between loyalty programme design and engagement rate. On the other hand, there was no correlation between loyalty programme design and value distribution. As a result, H1 was accepted for engagement rate and rejected for participation effort and value distribution.

The study compared the number of past studies that supported H1 with those that did not support it. The outcome showed that more studies supported H1 than those that did not. From the analysis of the empirical research, only one hypothesis test out of three supported H1. However, after the high number of past studies that supported it was considered, it made sense to accept H1.

5.3 H2: Examining Consumer Inclination to Subscribe to a Technology Solution used on LPs

This section discusses and explains the regression analysis results conducted to test H2. The analysis correlated independent variables with dependent ones using linear regression. The results from the empirical research were compared with the past research to identify similarities and differences.

5.3.1 Technology Solution and Participation Effort

A regression analysis was performed to investigate whether the technology solution, an independent variable, impacts the participation effort, a dependent variable. The results of this analysis are presented in Table 4.18 – Model Summary, Table 4.19 - ANOVA, and Table 4.20 – Regression Coefficients. The results showed a correlation between the two variables. This finding confirmed the acceptance of H2. The results of the empirical research were expected and supported by three out of four reviewed studies, indicating a technology solution's influence on participation efforts.

According to a study by Wang et al. (2018), consumers were willing to use mobile applications to simplify their participation in LPs if it brings convenience. This finding indicated that technology solution can positively impact consumer participation in LPs. According to a recent study by Bivona and Cosenz (2021), active users positively affect community engagement, trust, and network effects. These findings highlighted the potential benefits of deploying MSPs on LPs, which can simplify consumer participation. These findings aligned with a previous study by Abdelkafi et al. (2019). These findings demonstrated that MSPs can attract more consumers by streamlining processes. The conclusions of the two studies suggested that implementing MSPs on LPs can enhance the user experience and drive consumer adoption.

A study by Purohit and Thakar (2019) shed light on the fact that the success of technology cannot be attributed solely to its capabilities. The research emphasised the crucial role of organisational culture, implementation processes, and procedures in achieving desired outcomes. Thus, it is essential to consider all these factors while attempting to simplify customer participation in LPs through technology. Neglecting any of these factors could hinder the effectiveness of the technology.

5.3.2 Technology Solution and Engagement Rate

A regression analysis explored whether implementing a technology solution influenced the engagement rate. The results of this analysis are presented in

Table 4.21 – Model Summary, Table 4.22 - ANOVA, and Table 4.23 – Regression Coefficients. According to the results, there was no correlation between the two variables, leading to H2 being rejected. The results of the empirical research were unexpected. This revelation was surprising, as previous research has consistently shown a strong correlation between technology solution and engagement rate. All studies reviewed indicated a correlation between the two variables.

According to a study by Channa et al. (2022), innovative technologies moderate the relationship between SPs and customer loyalty. This finding suggested that adopting innovative technologies can enhance customer engagement with LPs, and consumers are more likely to embrace them. This finding is consistent with a study conducted by He et al. (2019). The study revealed that consumers are willing to accept social media to engage with LPs if it simplifies their participation and improves engagement.

The two studies by Channa et al. (2022) and He et al. (2019) are consistent with a study by Stourm et al. (2020). The study revealed that big data could enable SPs to personalise LPs better because of analytics capabilities. Using big data on LPs, SPs can facilitate consumer participation and boost engagement. This behaviour, in turn, will encourage consumers to adopt it. Mohammadi (2020) found that consumers are willing to adopt gamification on LPs if it enhances their level of engagement.

5.3.3 Technology Solution and Value Distribution

A regression analysis was performed to investigate whether the technology solution, as an independent variable, affected the value distribution as a dependent variable. Table 4.24 – Model Summary, Table 4.25 - ANOVA, and Table 4.26 – Regression Coefficients. The results indicated that there is no significant correlation between the two variables. Therefore, this suggested the rejection of H2. The results of the empirical research were unexpected and contradicted previous research. Three of the four studies reviewed showed that technology solution affected value distribution.

According to a study by Nastasoïu and Vandembosch (2019), technology can assist SPs in offering value-added services to consumers on LPs. This behaviour, in turn, encourages consumers to adopt and embrace the technology. A study by Aluri et al. (2019) found that using machine learning on LPs generates engagement and can benefit both SPs and consumers, resulting in widespread adoption.

According to a study by Behrouzi et al. (2023), consumers will likely embrace the use of blockchain technology on LPs because it will allow universal tokens. This suggestion will result in benefits for both SPs and consumers. However, a study by Bayraktar et al. (2010) contradicted the above studies by Nastasoïu and Vandembosch (2019), Aluri et al. (2019) and Behrouzi et al. (2023). When it found that consumers were not willing to adopt RFID technology on LPs as they feared it would expose their data to cybercriminals.

5.3.4 H2: Conclusion

The research analysed H2 by looking at past research on the relationship between the independent variable, technology solution, and the dependent variables: participation effort, engagement rate, and value distribution. While reviewing past studies, it was revealed that three out of four studies showed a correlation between technology solution and participation effort, while one indicated no correlation. All studies reviewed showed a correlation between technology solution and engagement rate. Finally, three out of four studies examined showed a correlation between the variables for technology solution and value distribution, but one study indicated no correlation.

Regression analysis was employed to test H2 with the quantitative data. The analysis of the technology solution and participation effort showed a correlation between the two variables, and H2 was accepted. The analysis of the relationship between technology solution and engagement rate has shown no correlation. Therefore, H2 was not accepted. Similarly, the study of the relationship between technology solution and value distribution has shown no correlation between the two variables, and H2 was not accepted either.

Several past studies that supported H2 were compared to those that did not support it. The outcome showed that more studies supported H2 than those that did not. Although, in the empirical research, only one hypothesis test out of three supported H2. However, considering the high number of past studies that supported it, it made sense for H2 to be accepted.

5.4 Conclusion

This chapter discussed the findings of the conducted analysis, and the aim was to test two hypotheses. Regression analysis investigated the correlation between two independent variables and three dependent ones. More studies from past research supported the two hypotheses.

The empirical research conducted found that only one hypothesis test supported H1. This test was for the correlation between loyalty programme design and engagement rate, whereas participation effort and value distribution failed to support it. Similarly, for H2, only one hypothesis test supported it: the correlation between technology solution and participation effort. However, engagement rate and value distribution did not support it. After considering the amount of past research that supported both hypotheses and that at least one test per hypothesis supported it, the conclusion was that both hypotheses were accepted.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter discusses the conclusion of each research objective, starting with RO1 and ending with RO2. It further discusses recommendations for mitigating the problems identified in the research problem. Finally, it discusses the recommendations for future research.

6.2 RO1: Conclusion

The primary goal of the first research objective was to examine how consumers perceived LP designs and their influence on participation effort, engagement rate, and value distribution across all stakeholders. The study utilised the Qualtrics platform to collect quantitative data and analysed it using SPSS software. To test the hypothesis, the data was analysed using regression to establish a correlation between the independent variable (loyalty programme design) and the dependent variables (participation effort, engagement rate, and value distribution).

The analysis used linear regression to conduct hypothesis testing. The results revealed no correlation between loyalty programme design and participation effort. This observation indicated that the surveyed respondents did not perceive loyalty programme designs influencing their participation in the LPs.

The results of the empirical research were unexpected and contradicted the previous studies. The seven studies reviewed all showed a correlation between the two variables.

The survey results revealed a correlation between loyalty programme design and engagement rate. This observation suggested that respondents viewed LP designs as influencing their engagement with these programmes.

The results from the empirical research were expected, which previous studies supported. Specifically, seven studies were examined concerning the correlation

between the two variables. Of these seven, six studies indicated a correlation between the variables, with only one stating no correlation.

According to the survey results, there was no correlation between loyalty programme design and value distribution. This observation implied that the respondents did not believe loyalty programme designs impacted value distribution among LP stakeholders.

The empirical research yielded unexpected results that contradicted the findings of previous studies. Seven studies were explored, showing a correlation between the two variables.

Based on the above, it is concluded that this research objective achieved its mandate. It revealed consumers' perceptions of the current LP designs and the impact of the LP designs on participation effort, engagement rate and value distribution.

6.3 RO2: Conclusion

The primary goal of the second research objective is to investigate whether consumers were likely to subscribe to a technology solution that simplifies their participation in LPs while enhancing the value they receive. The study used the Qualtrics platform to collect quantitative data and then used SPSS software to analyse it. A regression analysis was conducted to test the hypothesis by correlating the independent variable (technology solution) with the dependent variables (participation effort, engagement rate, and value distribution).

The analysis used the linear regression to test the hypothesis. The results revealed a correlation between the technology solution and participation effort. This observation indicated that the surveyed respondents considered technology a potential solution to simplify their participation in LPs.

The results obtained from the empirical research were expected. Past studies support the results of the empirical research. Four studies were reviewed, and three indicated a correlation between the two variables. However, one study showed no correlation.

Based on the analysis, the empirical research results revealed no correlation between technology solution and engagement rate. This revelation suggested that the respondents did not consider technology an effective way to increase their engagement with LPs.

The analysis of the correlation between technology solution and value distribution has revealed that there was no correlation. Therefore, the respondents did not consider technology as a solution to increase the value they receive from LPs.

Based on the results above, the research objective achieved its mandate. The study revealed consumers' views on using MSPs on LPs, how it can enhance their participation, and the value they derive.

6.4 Recommendations

6.4.1 Re-designing of current LPs

The study recommended that SPs in the grocery and fuel retail industries should re-design their LPs. The re-design was motivated by the research problem defined in Chapter 1. The study showed that LPs in RSA are snowballing, with over seventy-three per cent of economically active consumers using LPs. The study further indicated that an average consumer subscribed to over nine LPs.

The recommendation was further motivated by achieving the two research objectives. It was inspired by the rationale for the research, which indicated that there was no attention on how the rapid growth of LPs impacts consumer participation, engagement, and value. The study's commitment was that it will aid SPs willing to enhance their LP delivery and consumers striving to maximise LP value.

The literature review supported this recommendation to re-design LPs. It revealed that consumers were not happy with the rewards they receive compared to their participation efforts. The literature review supported this recommendation by showing that consumers were willing to accept technology improvements on LPs if they enhance the value they derive.

Finally, the empirical research results supported this recommendation by the revelation that the current LP design impacted the consumer engagement rate. They indicated that consumers engage less with LPs because of their inefficient design. The empirical research further revealed that technology solution influenced participation effort and that consumers were willing to adopt them. This observation implied that consumers were willing to subscribe to MSPs if deployed on LPs, which enhances the value they derive.

6.4.2 Leveraging Coalition LPs

The re-design of LPs should leverage the Coalition Loyalty Programme (CLP). They allow SPs to ally with LPs so that consumers can accumulate loyalty points when they purchase from any of the partners, claim Wang et al. (2018). This model provides advantages for the SPs because of the opportunity to share costs and benefits, as per Lee et al. (2013). This concept further helps the SPs provide their consumers with better value and convenience.

Most SPs in RSA have already started with this concept. For example, British Petroleum has CLP with Pick 'n Pay. Leveraging CLP will help SPs share the cost of implementing MSPs on LPs. Other SPs who have not implemented CLP can leverage their other strategic partnership. For example, Sasol Garage can implement CLP with OK Store. At the same time, Engine Garage can do that with Woolworths because they already have a strategic partnership.

6.4.3 Implementation of MSPs on LPs

There are two categories of MSP, namely digital and physical; the digital MSP is suitable for use on LPs. This suggestion is because it facilitates the exchange of digital goods and services, as Øverby and Audestad (2021) indicated. The SPs within the same CLP can implement an MSP they leverage to deliver their LPs better. For example, BP and Pick 'n Pay can leverage the same MSP.

6.4.4 How the MSPs will work on LPs

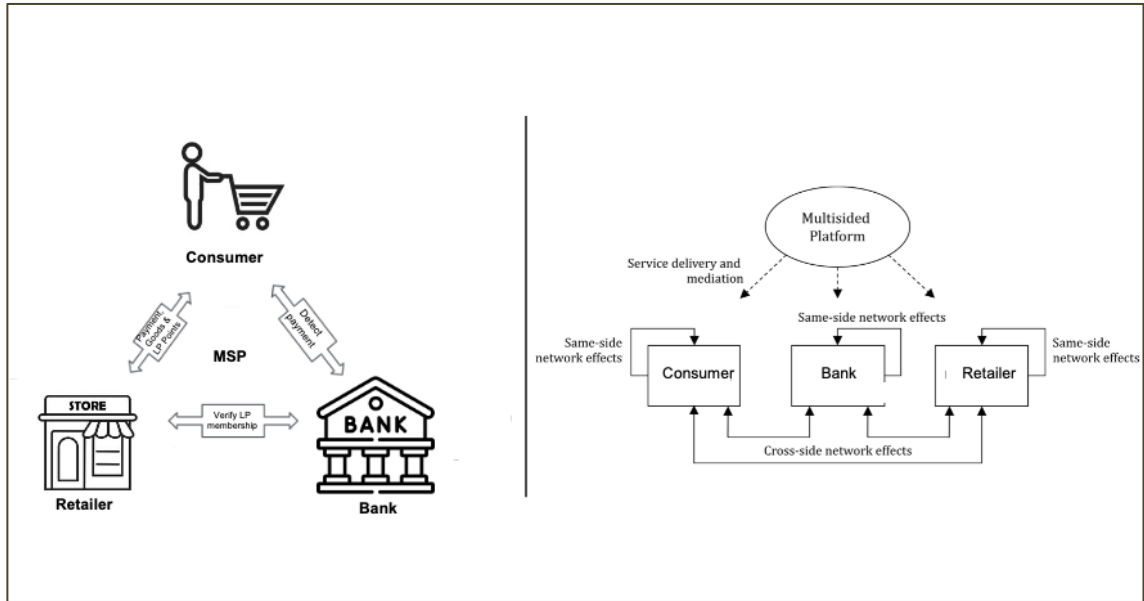


Figure 6.1: The MSP Concept on LPs

Source: Adapted from: (Yuyan Wang, 2018) and (Øverby & Audestad, 2021)

Figure 6.1 presents the concept of an MSP on LPs. It shows how an MSP will facilitate transactions between retailers, banks, and consumers. The MSP provides a centralised platform where retailers can interact with banks to make consumer participation in LPs more efficient.

To enrol, the consumer can use their existing mobile application for one of the retailers within the CLP, enabling them to subscribe to all SPs within the CLP partnership automatically.

To participate, the customer can swipe their bank card when purchasing, and the bank will detect the transaction; it will then trigger the MSP, which will verify if the customer has an LP membership with the retailer. Once the membership is verified, the MSP will trigger the retailer to award loyalty points.

If the consumer is not a member of the retailer's LP, then the MSP will prompt them to enrol, which will be an easy process that requires just acceptance of terms and conditions.

6.4.1 Benefits of Implementing MSPs on LPs

This process will enhance the current method, which requires consumers to swipe their bank and loyalty cards, scan their app, or provide their mobile number.

Consumers will earn loyalty points that are seamlessly allocated and tracked within the MSP. The consumer can monitor and redeem loyalty points from multiple SPs through the mobile application. The MSP will guarantee a seamless flow of transactions, allowing consumers to seamlessly accumulate and redeem rewards while enjoying a seamless shopping experience.

In addition, the platform will allow retailers and banks to analyse consumer preferences, purchasing patterns, and LP performance. This feature will allow for the creation of personalised offers and targeted promotions.

6.5 Suggestions for further research

Future research on this topic should focus on the relationship between the following variables developed by the study. Loyalty programme design is against participation effort, and loyalty programme design is against value distribution. Research should further investigate the relationship between technology solution against engagement rates and technology solution against value distribution.

Table 6.1: Consistency table: research questions, propositions, data collection and data analysis

RO #	Research Objective	Hypothesis #	Hypothesis	Data collection detail	Data analysis method
RO1	To investigate consumer perceptions of LP designs and their impact on participation effort, engagement rate, and value distribution across stakeholders.	H1	Consumers view the current LP designs as inefficient, necessitating greater participation effort, which results in a reduced engagement rate and primarily benefits SPs.	Surveys	Regression Analysis
RO2	To investigate if consumers are inclined to subscribe to a technology solution that simplifies their participation in LPs while enhancing the value they derive.	H2	Consumers are more likely to subscribe to a technology solution that simplifies their participation in LPs if it enhances the value they derive from these programmes.	Surveys	Regression Analysis

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APPENDIX A – Survey Questionnaire

Variables	Code	Questions	Responses
Consent		Do you consent to participate in this research study?	1. Yes 2. No
		Do you reside in South Africa?	1. Yes 2. No
		What is your age?	3. Not willing to disclose 1. Less than 19 2. Between 19 and 30 3. Between 31 and 40 4. Between 41 and 50 5. Between 51 and 60 6. Not willing to disclose
		Do you have Loyalty Programmes in grocery or fuel retail (e.g., a card you swipe when you buy grocery at pick 'n pay, checkers, SPAR or fuel Engen, Sasol, or Shell)?	1. Yes 2. No
		How many Loyalty programmes do you have?	1. Less than 2 2. Between 2 and 4 3. Between 5 and 7 4. More than 7
Demographics		What is your occupation?	1. Unemployed 2. Self-employed 3. Entry-Level/Junior 4. Intermediate/Mid-Level 5. Senior Level 6. Not willing to disclose
Loyalty Programme design	LPD1	Most of my loyalty or reward programmes require me to put too much effort to earn points.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree
	LPD2	I often forget to swipe my loyalty card or provide the teller with my phone number to earn points when I buy grocery or fuel.	1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree

Participation Effort	LPD3	Most of the time I only remember that I forgot my loyalty card at home when I am already at the fuel station or at the till point.	5. 1. 2. 3. 4. 5.	Strongly Agree Strongly Disagree Disagree Neutral Agree Strongly Agree
	LPD4	Most of my loyalty or reward programmes require me to put too much effort to redeem points.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	LPD5	Most of my loyalty or reward programmes require me to put too much effort to monitor points.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	LPD6	All the loyalty or reward programmes that I have apply the same approach for earning, redeeming, and monitoring points.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	PE1	The last time I joined a loyalty or reward programme from a fuel station or a grocery store, I found it easy to do so.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	PE2	The last time I participated in a loyalty or reward programme, it was easy for me to earn, redeem and monitor points.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	PE3	It is easy for me to check the points that I have on most of the loyalty or reward programme that I have.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	PE4	I find it easy to participate in most of the loyalty or reward programmes that I have.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	ER1	I actively engage with all activities on the loyalty or reward programmes that I have.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	ER2	In the past 3 months I missed out on loyalty points when I purchased fuel or grocery because I forgot to bring my loyalty card with.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	VD1	The benefits in the loyalty or reward programmes that I have are distributed fairly between grocery stores and fuel garages and myself.	1. 2. 3. 4. 5. 6.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	TS1	I would be willing to subscribe to a technology solution that helps me earn loyalty points automatically when I put fuel or buy grocery.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
Value Distribution	TS2	I would be willing to subscribe to a technology solution that makes it easy for me to join loyalty or reward programmes.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
	TS3	I would be willing to subscribe to a technology solution that helps me monitor all my loyalty points easy.	1. 2. 3. 4. 5.	Strongly Disagree Disagree Neutral Agree Strongly Agree
Technology Solution				

APPENDIX B – Respondent Consent Letter

Participant Information Sheet

Dear Sir / Madam

My name is Sello Tlabela. I am a master's student in the Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. My supervisor is Prof. Thomas Anning Dorson. I am conducting a research study about Loyalty Programmes. The study title is Enhancing Loyalty Programmes Value Through Multi-Sided Platform.

I am inviting you to take part in an online survey. If you decide to take part, your participation in this research study will last about 15 minutes, the survey will take place at online at your convenience.

This data will be stored in an online cloud storage which is password protected for 5 years. Only the researcher, Sello Tlabela will have access to the data.

During the research activity, I will need to ask for some personal information about you, including occupation, age range and gender.

The survey will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to volunteer. You do not have to take part. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decide not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study. Your data costs to complete the survey will be reimbursed to a maximum of R150.

The risks for this research study are no more than what happens in everyday life / some of the questions asked may make you feel sad or upset. If this happens, you can stop the survey and continue another time. If you need some support or counselling services following the survey, these are available free of charge at ICAS. The name of the counsellor is ICAS and the contact details for the counselling service are 0800 082 082.

This research study will be written up as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

If you have any questions during or afterwards about this research study, feel free to contact me or my supervisor on the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Yours sincerely,
Sello Tlabela

Researcher:
Sello Tlabela, 734593@students.wits.ac.za

Supervisor:
Prof. Thomas Anning Dorson, thomas.dorson.anning@wits.ac.za

APPENDIX B – Ethics Approval

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg



Wits Business School Ethics Committee

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

Ethics Clearance Certificate

Ethics protocol number: WBS/DB734593/834

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

Project title	Enhancing the value of loyalty programmes through multi-sided platform
Investigator / Researcher	Mr Sello Tlabela
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	9/11/2023
Expiry date	Date of submission of the project / research report
Chairperson	Dr Pius Oba ☎ +27 11 717 3976 📠 +27 82 733 6587 ✉ pius.oba@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 a 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.

Signature

12/09/2023

Date: