

Chapter 2

Literature review and theoretical framework

Chioma Ann Udeh

Department of business administration, Ahmadu bello university business school, Ahmadu bello university, zaria, Nigeria

2.1 Introduction

The automotive industry is facing increasing pressure to adopt sustainable practices due to concerns about environmental degradation and resource depletion. Green spare parts initiatives are one way in which the industry is seeking to reduce its environmental impact (Al-Awamleh, et. al., 2021, González-Varona, et. al., 2020). These initiatives involve the use of recycled, remanufactured, or sustainable spare parts to minimize waste and conserve resources. Central to the success of green spare parts initiatives is the engagement of customers, as their choices and behaviours significantly influence the demand for sustainable products and services (Alonso-Almeida, et. al., 2020, Sun, et. al., 2020). The chapter is the review of the literature based on existing literature on customer engagement techniques employed in green spare parts initiatives. The sections of the chapters are the namely; Conceptual review, Theoretical review, Empirical Review, and The Research conceptual framework.

2.2 Concept of Green Spare Parts Initiatives

Green spare parts initiatives aim to reduce the environmental impact of vehicle maintenance and repair by promoting the use of recycled, remanufactured, or sustainable spare parts (Gunasekara, Gamage & Punchihewa, 2020, Zahladko, 2023). These initiatives align with the principles of the circular economy, which emphasize resource efficiency and waste reduction. Green spare parts can include components that have been recycled from end-of-life vehicles, remanufactured to original specifications, or made from sustainable materials. Green spare parts initiatives refer to efforts within the automotive industry to promote the use of environmentally friendly spare parts as a way to reduce the environmental impact of vehicle maintenance and repair. These initiatives aim to minimize waste, conserve resources, and promote sustainability throughout the automotive supply chain. Green spare parts can include components that are recycled

from end-of-life vehicles, remanufactured to original specifications, or made from sustainable materials (Hyvärinen, Pylkkö & Kärki, 2023, Ruiz, Pinho & Resende, 2022). Green spare parts projects cover more ground than just producing and utilizing eco-friendly spare parts. It also includes tasks like recycling, which is gathering and preparing materials from automobiles that are nearing the end of their useful lives in order to make new replacement parts. This lessens the production process's negative environmental effects and the need for virgin materials. Remanufacturing is the process of bringing used parts back to their original state in order to increase their lifespan and decrease the need for new ones. Although they have a smaller environmental impact, remanufactured parts are frequently of equivalent quality to new parts. Green spare parts initiatives also include practices to minimize waste generation and promote responsible disposal of automotive parts. This can include initiatives to reduce packaging waste, encourage recycling, and ensure proper disposal of hazardous materials. Companies may also use sustainable materials, such as biodegradable plastics or renewable resources, to manufacture spare parts. This helps reduce the use of non-renewable resources and minimizes the environmental impact of production.

In the automotive industry, the concept of green spare parts has seen notable progress. For instance, the UK insurance industry has adopted programmes where salvaged car parts, such as bumpers, doors, and headlamps, are reused to repair damaged vehicles. These green parts, which are quality controlled and often come with warranties, help reduce the need for new parts, thereby lowering the consumption of raw materials like metal, plastic, and glass. This initiative not only supports environmental sustainability but also offers a cost-effective alternative for car repairs (Ageas, 2023). The use of green spare parts is particularly advantageous in reducing the energy consumption associated with manufacturing new components. According to studies, manufacturing processes often require significant energy and generate substantial emissions. In contrast, the reuse of existing parts, which undergo stringent checks to ensure quality, considerably lowers energy consumption. Additionally, remanufactured parts often perform on par with new parts, making them a viable solution for industries looking to reduce environmental harm while maintaining product quality (Zhang, et. al., 2021).

Several industries are also focusing on green spare parts as a response to increasing regulatory pressures and consumer demand for sustainable practices. For instance, the European Union's directives on waste management encourage the reuse and recycling of electronic and automotive components. These regulations have catalysed the adoption of green spare parts, particularly in sectors where the disposal of parts has traditionally led to environmental degradation. As companies comply with these regulations, the adoption of green spare parts is expected to grow (European Commission, 2021). From an

economic perspective, green spare parts offer several advantages. They can significantly lower repair costs, especially in sectors like insurance and automotive repairs, where the cost of new parts can often exceed the value of the asset being repaired. For example, in cases where imported new parts are expensive or face supply chain delays, green parts present a cost-effective and quicker alternative. Moreover, companies adopting green spare parts can benefit from improved brand image and customer loyalty as consumers become more environmentally conscious (Ageas, 2023).

Despite the benefits, there are challenges associated with green spare parts initiatives. One major challenge is the perception that remanufactured or reused parts are inferior to new ones. To combat this, companies need to ensure rigorous quality control and provide warranties to build trust with consumers. Additionally, there is a need for greater awareness and education about the environmental and economic benefits of green spare parts. This will require coordinated efforts from manufacturers, regulators, and industry bodies (Singh, et. al., 2022). The future of green spare parts is promising, particularly as industries continue to prioritise sustainability. Innovations in technology, such as advanced materials and recycling techniques, are likely to improve the efficiency and quality of remanufactured parts. Furthermore, as circular economy principles become more embedded in business models, green spare parts will play a crucial role in reducing waste and promoting resource efficiency (Singh, et. al., 2022). Overall, green spare parts initiatives play a crucial role in promoting sustainability within the automotive industry by reducing waste, conserving resources, and minimizing the environmental impact of vehicle maintenance and repair (Sathasivam, Che Hashim & Abu Bakar, 2021, Singh, et. al., 2022). These initiatives align with broader efforts to promote sustainability and address climate change, making them an important focus area for companies seeking to reduce their environmental footprint.

2.2.1 Role of Green Spare Parts in Reducing Waste and Promoting Sustainability

Green spare parts play a pivotal role in reducing waste and promoting sustainability by addressing environmental concerns in industries reliant on spare part replacements. Traditional manufacturing and distribution methods generate significant waste due to excess production, overstocking, and the discarding of obsolete parts. By implementing green spare parts practices, such as using recycled materials and additive manufacturing, industries can minimise waste. Additive manufacturing, often referred to as 3D printing, allows the production of parts on demand, reducing the need for excess inventory and decreasing the material waste associated with traditional production methods (Poza et al., 2020). A key advantage of green spare parts is their contribution to a circular economy.

By designing parts with reusability and recyclability in mind, companies can ensure that components are either reused or returned to the production cycle at the end of their life.

This approach reduces the environmental footprint of industries while also addressing resource scarcity. The automotive and electronics industries, for instance, have increasingly adopted such practices to reduce the volume of e-waste and minimise the reliance on raw material extraction, which is both energy-intensive and environmentally damaging (The Green Initiative, 2023). Moreover, green spare parts contribute to optimising supply chain efficiency, particularly in terms of reducing emissions from transportation and logistics. The digitalisation of spare parts production enables companies to manufacture parts closer to the point of need, thus minimising the carbon emissions associated with long-distance shipping. Additionally, accurate fitment data in the automotive sector ensures that customers receive the correct parts, reducing the frequency of returns and the environmental costs of repeated deliveries (Poza et al., 2020; The Green Initiative, 2023).

The implementation of green spare parts also encourages industries to shift towards sustainable business models. By focusing on producing parts that are biodegradable or easily disassembled for recycling, companies not only reduce their environmental impact but also cater to growing consumer demand for sustainable products. This shift is essential in building a reputation for environmental responsibility, which can enhance brand loyalty and drive long-term profitability (Poza et al., 2020).

However, the transition to green spare parts does face challenges, particularly in terms of cost and technological adoption. Small and medium-sized enterprises (SMEs) may struggle to invest in the technologies necessary for sustainable spare parts production, such as advanced 3D printing equipment. Furthermore, the integration of these practices within established supply chains can be complex and require significant initial capital outlays. Yet, as green technologies become more accessible, the cost barriers are likely to diminish, making sustainable spare parts a viable option for a broader range of industries (Poza et al., 2020). The role of green spare parts in reducing waste and promoting sustainability is becoming increasingly critical as industries face growing pressure to minimise their environmental impact. While challenges remain, the long-term benefits in terms of waste reduction, resource conservation, and brand reputation make this transition an essential focus for forward-thinking industries.

2.3 Concept of Customer Engagement

Customer engagement (CE) has emerged as a critical concept in marketing, reflecting the evolving relationship between businesses and their customers. It encompasses the interactions, emotional connections, and behaviours that occur between a customer and a brand or company. CE goes beyond transactional relationships, encouraging ongoing participation from customers, which can significantly impact brand loyalty, satisfaction, and overall business performance (Hollebeek et al., 2014). As such, customer engagement is not merely a one-time event but a sustained and dynamic interaction that contributes to customer retention and advocacy. Several scholars have defined customer engagement in various ways, underscoring its multidimensional nature. Pansari and Kumar (2017) describe customer engagement as a customer's emotional and cognitive investment in a company's offerings, focusing on the depth of connection beyond the purchase. According to Vivek et al. (2014), customer engagement is composed of facets such as conscious attention, enthused participation, and social connection, thus highlighting its complex nature. Hollebeek et al. (2019) further define customer engagement as the customers' behavioural manifestations toward a brand, which include both in-role (such as purchases) and extra-role behaviours (such as advocacy and providing feedback). This reflects the growing complexity and importance of customer engagement in driving business outcomes. From a broader theoretical perspective, customer engagement has been framed through different lenses. For instance, Hollebeek (2019) explores customer engagement using the Service-Dominant (S-D) logic, which sees customers as co-creators of value in their interactions with brands. On the other hand, Rosado-Pinto and Loureiro (2020) examine customer engagement from a relationship marketing perspective, emphasising the reciprocal nature of customer and brand interactions. These diverse perspectives highlight the rich theoretical underpinnings of customer engagement, revealing that it can be studied both as a customer-centric process and a firm-centric strategy (Brodie et al., 2011).

Customer engagement is typically understood as a multi-dimensional construct. It includes cognitive, emotional, and behavioural dimensions (Vivek et al., 2014). Cognitively, customers invest mental resources in their interaction with a brand, such as by evaluating product quality or participating in brand-related discussions. Emotionally, customers form attachments and develop feelings of trust or passion towards the brand. Behaviourally, customer engagement manifests in actions such as repeat purchases, social media interactions, and brand advocacy (Van Doorn et al., 2010). This multi-faceted approach ensures that customer engagement is seen as a holistic and ongoing relationship rather than a singular point of interaction. Further definitions of customer engagement extend to the impact on firms. Kumar and Pansari (2016) view customer engagement as

a critical driver of business value, noting that highly engaged customers are more likely to exhibit loyalty, contribute to word-of-mouth marketing, and provide valuable feedback to improve products and services. In this sense, CE not only enhances customer satisfaction but also creates a loop of continuous improvement and innovation for companies. Customer engagement thus acts as a strategic asset that organisations can leverage to maintain competitiveness in an increasingly dynamic market. One of the key aspects of CE is its role in fostering brand loyalty. Engaged customers are not only more likely to make repeat purchases, but they also act as brand advocates, spreading positive word-of-mouth and influencing potential customers (Hollebeek et al., 2014). This advocacy plays a critical role in expanding a company's reach and improving its reputation. Additionally, customer engagement positively correlates with higher levels of trust and emotional connection, which are essential for long-term customer retention (Maslowska et al., 2016). In the digital age, the landscape of customer engagement has expanded significantly due to the influence of social media and other digital platforms. Brands can now engage with customers in real-time, fostering stronger relationships and immediate feedback loops (Rosado-Pinto & Loureiro, 2020). This digital shift has made customer engagement more accessible and data-driven, allowing businesses to tailor their engagement strategies based on consumer behaviour analytics. As a result, customer engagement has become not only a marker of success but also a key indicator of a brand's adaptability and relevance in the marketplace.

2.3.1 Dimensions of Customer Engagement

Customer engagement has emerged as a critical concept in marketing and brand management due to its role in enhancing customer relationships and driving business success. Scholars have widely conceptualised customer engagement as a multidimensional construct encompassing cognitive, emotional, and behavioural dimensions. These dimensions capture how customers think, feel, and act in their interactions with brands (Hollebeek et al., 2014). The cognitive aspect refers to the degree of mental investment a customer makes towards a brand, including their awareness and understanding of the brand's value proposition (Hollebeek et al., 2019).

This dimension plays a crucial role in shaping customers' decision-making processes and influences how they perceive the brand in relation to its competitors. The emotional dimension of customer engagement focuses on the affective responses that customers experience during their interactions with a brand. Positive emotional connections, such as feelings of attachment and satisfaction, significantly contribute to fostering customer loyalty and advocacy (Rather, 2020). Emotional engagement often stems from meaningful

experiences with the brand, which may include personalised services, excellent customer support, or shared values between the customer and the brand. This emotional bond can lead to long-term relationships, with customers being more inclined to repurchase and recommend the brand to others (Islam et al., 2019).

Behavioural engagement, the third dimension, refers to the actions and activities that customers undertake in relation to a brand, including both transactional behaviours like purchases and non-transactional behaviours such as providing feedback or participating in brand communities (Van Doorn et al., 2010). This dimension extends beyond the traditional customer roles and highlights how engaged customers can become brand advocates, spreading positive word-of-mouth and even contributing to brand development through co-creation activities (Harrigan et al., 2018). Thus, behavioural engagement not only impacts immediate sales but also strengthens the overall customer-brand relationship.

A critical aspect of understanding customer engagement lies in recognising its dynamic nature across different touchpoints and channels. As digitalisation progresses, the online engagement dimension has gained prominence, particularly with the rise of social media and e-commerce platforms. Customers engage with brands across multiple channels, and their engagement behaviours can vary significantly depending on the platform. Online engagement allows for real-time interactions and personalisation, enhancing the overall customer experience and creating deeper connections (Hollebeek et al., 2022). This shift towards digital engagement emphasises the need for brands to adopt omnichannel strategies that integrate both online and offline experiences seamlessly. Customer engagement also has a significant influence on consumer behavioural intentions, including their likelihood to repurchase, recommend, and remain loyal to a brand (Ahn & Back, 2018). Studies have shown that engaged customers exhibit stronger brand loyalty and are less price-sensitive, making them valuable assets for companies (Kumar et al., 2019). The role of engagement in driving behavioural intentions underscores its importance not only for short-term transactions but also for long-term customer retention and profitability (Hollebeek et al., 2019).

Moreover, the value co-creation capacity of customer engagement highlights its potential for brands to involve customers in product development, service improvement, and marketing initiatives. By actively engaging customers in these processes, brands can create more personalised offerings that align with customer needs and preferences, leading to enhanced customer satisfaction and brand loyalty (Brodie et al., 2011). This co-creation process also strengthens the psychological ownership that customers feel towards the brand, further deepening their emotional and behavioural engagement. The measurement of customer engagement remains a complex endeavour, with scholars

proposing various frameworks to capture its multidimensionality. While some studies focus on specific aspects, such as affective and cognitive dimensions, others adopt more comprehensive approaches that include behavioural indicators. The evolving nature of engagement metrics, especially in the digital context, calls for continuous refinement to ensure accurate assessments of customer engagement levels (Hollebeek et al., 2022). Future research should focus on developing more robust, scalable models that account for the increasing complexity of customer-brand interactions across various platforms.

2.3.2 Customer Engagement Techniques

Several customer engagement techniques have been used in green initiatives to promote the adoption of sustainable practices. Engaging customers in green initiatives is crucial for promoting sustainability and driving positive environmental change (Chuah, et. al., 2020, Lam & Li, 2019). Several effective customer engagement techniques have been used in green initiatives to encourage sustainable behaviours and choices. Informing customers about the environmental impact of their choices and the benefits of sustainable practices is key to promoting engagement. Companies use various channels, such as social media, websites, and marketing campaigns, to raise awareness and educate customers about sustainability issues. One widely used technique is personalisation, where businesses tailor their communication and offerings based on individual customer preferences and behaviours. Personalised experiences enhance the customer's perceived value of a brand, often leading to stronger engagement (Maslowska et al., 2016).

This approach is facilitated by advancements in data analytics and artificial intelligence, enabling businesses to anticipate customer needs and provide relevant solutions (Beckers et al., 2018). By delivering personalised recommendations, brands can make customers feel valued, which significantly impacts their willingness to engage further (Verhoef et al., 2010). Offering incentives, such as discounts, rewards points, or exclusive offers, can motivate customers to choose sustainable products and services. Rewards programs that track and reward sustainable behaviours, such as recycling or energy conservation, can also be effective in promoting engagement.

Designing products with environmental considerations in mind and clearly labeling them as green or eco-friendly can help customers make informed choices. Green labeling schemes, such as eco-labels or energy efficiency labels, provide customers with information about the environmental impact of products and encourage them to choose sustainable options. Engaging with local communities and partnering with environmental organizations can help companies connect with customers who are passionate about sustainability. Community events, clean-up drives, and other initiatives can foster a sense

of community and encourage sustainable behaviours. Providing customers with feedback on their sustainable behaviours and offering channels for communication and feedback can help build trust and engagement. Companies can use surveys, feedback forms, and online forums to gather input from customers and involve them in decision-making processes. Gamifying sustainable behaviours, such as through online games or apps, can make sustainability more engaging and fun for customers. Interactive platforms that allow customers to track their environmental impact and set sustainability goals can also be effective in promoting engagement. Leveraging social media and digital marketing channels to promote sustainable practices and engage with customers can be highly effective. Customer feedback mechanisms are vital for maintaining engagement. By actively seeking and responding to feedback, brands show that they value their customers' opinions, which can increase satisfaction and loyalty (Alexander et al., 2018).

This two-way communication allows businesses to make informed improvements and demonstrates a commitment to customer-centricity. Furthermore, when companies act on feedback, it reinforces customer trust and encourages further interaction (Pansari & Kumar, 2017). Companies can use social media campaigns, influencers, and targeted advertising to raise awareness and encourage sustainable behaviours. Customer engagement techniques play a crucial role in promoting sustainability in the automotive industry, particularly in the context of green spare parts initiatives. Understanding customer behaviour and preferences is essential for developing effective engagement strategies that resonate with customers (Dolan, et. al., 2019, Leckie, Rayne & Johnson, 2021). By engaging customers effectively, automotive companies can enhance their sustainability efforts and contribute to a more environmentally friendly industry. Overall, effective customer engagement in green initiatives requires a combination of education, incentives, community engagement, and communication strategies (Chuah, et. al., 2020, Knickmeyer, 2020). By understanding customer preferences and values and using targeted engagement techniques, companies can promote sustainability and drive positive environmental change. Previous research has highlighted the importance of customer engagement in sustainability initiatives across various industries. Studies have shown that customers are increasingly concerned about environmental issues and are willing to support companies that demonstrate a commitment to sustainability (Chuah, et. al., 2020, Vesal, Siahtiri & O'Cass, 2021). Customer engagement in sustainability initiatives can lead to increased brand loyalty, positive word-of-mouth, and a competitive advantage. However, there are challenges in engaging customers effectively, including the need for clear communication, incentives, and education. Research on customer engagement in sustainability initiatives has shown that customers play a crucial role in driving sustainable behaviours and practices (Chuah, et. al., 2020, Hur, Moon & Kim, 2020). Several key findings have emerged from previous studies. Customers are more likely to

engage in sustainability initiatives when they are aware of the environmental issues involved and understand the benefits of sustainable practices. Companies can increase awareness through educational campaigns and initiatives that highlight the environmental impact of products and services. Customer engagement is influenced by a variety of motivations, including environmental concerns, cost savings, and social influence. Companies can encourage engagement by offering incentives such as discounts, rewards, or recognition for sustainable behaviours. Building trust with customers is essential for successful engagement in sustainability initiatives. Customers are more likely to engage with companies that are transparent about their environmental practices and demonstrate a commitment to sustainability. Social factors, such as peer pressure and social norms, play a significant role in driving sustainable behaviours. Customers are more likely to engage in sustainability initiatives if they see others in their social circle doing the same. Effective communication and engagement strategies are key to encouraging customer participation in sustainability initiatives. Companies should use a variety of channels, such as social media, websites, and community events, to engage with customers and raise awareness about sustainability issues.

2.3.3 Challenges in Customer Engagement in Green Spare Parts Initiatives

Engaging customers in green spare parts initiatives presents several challenges, primarily due to the complexity of aligning environmental goals with customer preferences and behaviours. One of the main obstacles is the perception of sustainability among consumers, where green products, including spare parts, are often seen as expensive or less reliable compared to traditional options. This perception creates a barrier to customer engagement, as many individuals prioritise cost and product performance over environmental concerns (Agag, 2024). Additionally, customers may lack awareness of the environmental impact of non-green spare parts, leading to reduced interest in sustainable alternatives. Another challenge lies in the limited availability and visibility of green spare parts in the market. Consumers are less likely to engage with green initiatives if they cannot easily access these products. Supply chain complexities, particularly in industries like automotive manufacturing, hinder the widespread availability of eco-friendly spare parts, limiting customer choices. Studies show that sustainable supply chain management is crucial to the success of green initiatives, but challenges such as the cost of implementation and regulatory constraints often delay progress (Adams et al., 2019).

The issue of trust and transparency is also significant. Consumers may be sceptical about the environmental claims of manufacturers, especially in industries where greenwashing—misleading information about the environmental benefits of a product—

is prevalent. Without transparent and verifiable data on the sustainability of green spare parts, customers may remain disengaged (Agag, 2024). Therefore, businesses need to build trust by providing clear information on how their products contribute to sustainability and reduce environmental harm. Furthermore, behavioural inertia presents another barrier. Even when consumers are aware of the benefits of green spare parts, changing established purchasing habits can be difficult. Many customers are accustomed to conventional spare parts and may resist switching to greener options due to concerns about compatibility, availability, or effectiveness (Geng et al., 2021). Overcoming this resistance requires strategic marketing efforts and consumer education to demonstrate the long-term benefits of sustainability.

Cost is another critical factor affecting customer engagement in green initiatives. Many green spare parts are perceived as being more expensive than their conventional counterparts, which can deter cost-sensitive consumers, particularly in markets with limited disposable income. Research suggests that while consumers are becoming more environmentally conscious, price remains a dominant factor in purchase decisions (Ness et al., 2020). Companies need to find ways to make green spare parts more affordable or demonstrate their cost-effectiveness in the long term. The lack of incentives from businesses and governments further complicates customer engagement in green spare parts initiatives. While some industries have introduced schemes such as discounts for returning old parts or using recycled materials, these initiatives are not widespread. Incentives, such as tax reductions or rebates for purchasing eco-friendly products, could encourage more consumers to engage with green products (Agag, 2024). Another challenge stems from the technical knowledge required to promote green spare parts effectively. Consumers often lack the technical expertise to understand the advantages of sustainable materials and designs in spare parts. This gap in understanding can lead to reluctance in adopting green alternatives. Therefore, educational campaigns that simplify the technical aspects of sustainability can help bridge this gap and enhance customer engagement (Adams et al., 2019). Lastly, the challenge of aligning business strategies with sustainability goals remains a key issue. Companies may struggle to balance profitability with environmental sustainability, particularly in industries where green spare parts are more costly to produce. A strategic alignment that integrates environmental sustainability with core business objectives is essential for the long-term success of green initiatives (Agag, 2024). Companies that succeed in doing so are more likely to foster deeper customer engagement and brand loyalty.

2.4 Review of Empirical Studies

Stampatori et al. (2023), investigates those barriers hindering customer engagement in flexibility markets and discusses strategies for their mitigation, aiming to unlock the untapped potential of the resources located at the customer's premises and foster a more consumer-centric power system. Drawing from an extensive and multi-disciplinary literature review and benefiting from interactions with OneNet cluster demonstrators, this research identifies economic, behavioural, legal, and technical barriers to customer engagement in flexibility markets. Mosa et al., (2020), explored the current literature on data mining techniques to enhance digital customer engagement and review the impact of data mining on analyzing customer's attributes and its key performance indicators influenced by digital customer engagement and affecting business success. The scope of the review encompasses the state of the art of scientific methodologies and models applied to identify customers with the highest potential towards digital engagement. A critical analysis also identified gaps in the literature. This study is the first to explicitly consider data mining techniques for enhancing digital customer engagement with a comprehensive analysis of customer's attributes in different domains.

A study by Hollebeek and Macky (2019) explores how social media platforms facilitate customer engagement by fostering interactions between consumers and brands. The authors argue that brands employing responsive communication strategies on social media platforms witness higher engagement levels, which translate into increased brand loyalty. Their findings suggest that engagement strategies, such as personalised responses and interactive content, significantly enhance consumers' emotional connections with brands. In their research, Hamari et al. (2016) examine the role of gamification in promoting customer engagement. The study reveals that incorporating game-like elements, such as points, badges, and leaderboards, into customer interactions enhances user motivation and engagement. The findings indicate that gamification not only increases participation rates but also fosters a sense of community among consumers, ultimately enhancing brand loyalty.

Research by Lemon and Verhoef (2016) highlights the significance of personalisation in customer engagement. The authors assert that tailored marketing efforts—based on individual consumer data can significantly enhance customer experiences and satisfaction. Their empirical findings demonstrate that personalisation leads to a stronger emotional bond between consumers and brands, resulting in increased engagement and loyalty. Verhoef et al. (2015) conducted a comprehensive study on the effectiveness of omnichannel strategies in enhancing customer engagement. Their research indicates that a seamless experience across multiple channels—such as online, mobile, and in-store significantly improves customer satisfaction and engagement. The findings suggest that

brands adopting an omnichannel approach can effectively cater to diverse consumer preferences, resulting in stronger customer loyalty.

A study by Norrman and Jansson (2021) investigates the role of customer feedback in driving engagement. The authors found that brands that actively solicit and act upon customer feedback are perceived as more responsive and customer-centric, leading to increased engagement levels. The empirical data suggest that incorporating feedback loops into customer interactions significantly enhances consumer trust and loyalty. Research by Brodie et al. (2019) delves into the emotional aspects of customer engagement. The study emphasises that emotional engagement, characterised by customers' feelings of attachment and loyalty, significantly influences their interactions with brands. The authors highlight that brands focusing on emotional storytelling and authentic communication can enhance customer engagement and foster long-term relationships.

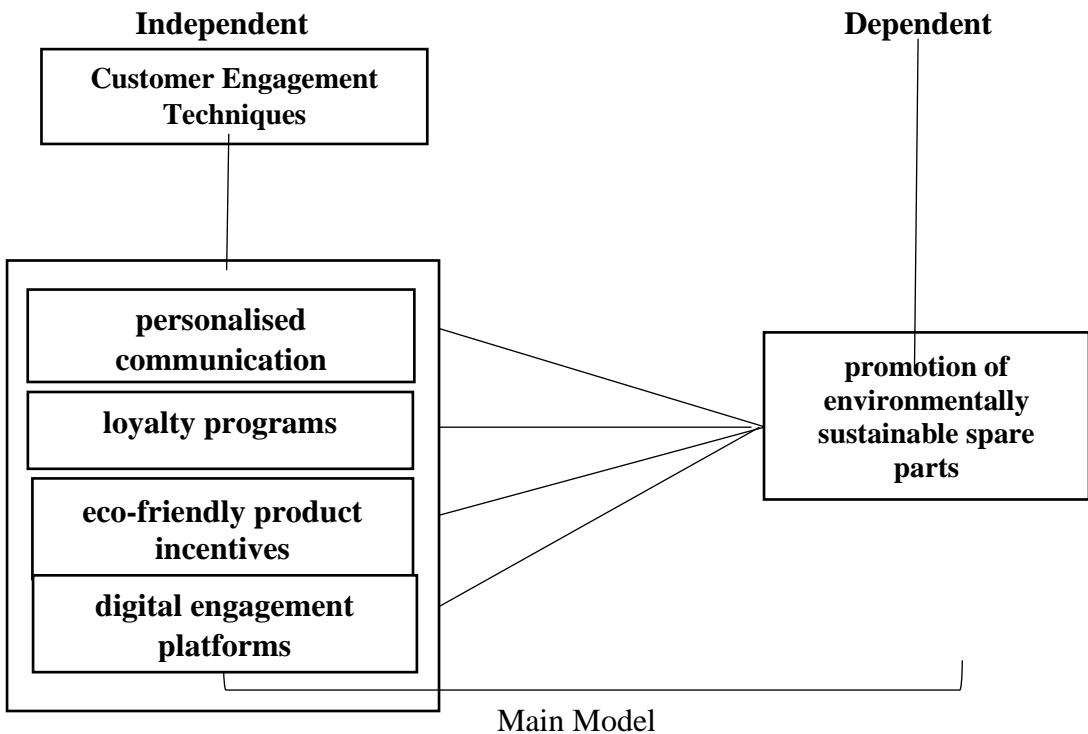


Figure 2.1 Researcher's Conceptual Mode

2.5 Conceptual Framework

The conceptual model shows the relationship that exists within the variables of the dependent and independent within their variables. This conceptual framework provides

a structured approach to understanding customer engagement techniques in green spare parts initiatives. addressing each of research objectives through the identification of key variables, their interrelationships, and the formulation of hypotheses.

2.6 Theoretical Framework

A theoretical review is a set of statement of principles devised to explain a group of facts or phenomena especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about a natural phenomenon (Kothari, 2004). Theories are analytical tools for understanding, explaining and predicting about a given subject matter. The theory this study will focus on is the Relationship Marketing Theory. The reason for choosing this theory is because it focuses on building long-term, value-driven relationships between businesses and customers, which is crucial for fostering customer loyalty and sustained engagement in sustainability efforts. In the context of green spare parts initiatives, the theory emphasises the importance of trust, commitment, and ongoing communication—key elements for encouraging customers to engage with environmentally friendly practices. By focusing on long-term interactions rather than one-off transactions, relationship marketing can help businesses create stronger bonds with customers who are increasingly conscious of environmental impacts, thus driving continuous engagement in green initiatives. This approach is aligned with the growing demand for sustainable products and practices, making it highly relevant for understanding how to effectively engage customers in eco-friendly initiatives like green spare parts.

2.6.1 Relationship Marketing Theory

Relationship Marketing theory focuses on establishing, maintaining, and enhancing long-term relationships with customers, moving beyond the traditional transactional approach of marketing. It is built upon the idea that fostering strong customer relationships leads to greater customer loyalty, trust, and satisfaction, ultimately resulting in sustained business growth and profitability (Payne & Frow, 2017). Relationship marketing emphasises creating value not just through one-off sales but through ongoing interactions that benefit both the firm and the customer, particularly in service-driven industries where interactions are frequent and customer engagement is key (Gummerus et al., 2017). The theoretical foundation of relationship marketing is deeply rooted in social exchange theory, which suggests that relationships are formed and maintained based on the mutual exchange of benefits. Companies invest in building relationships by providing customers with tailored

services, personalised attention, and other relationship benefits, which in turn fosters customer trust and loyalty (Brodie et al., 2017). The reciprocity principle in social exchange theory plays a central role in relationship marketing, as customers who perceive firms' relationship-building efforts positively are more likely to reciprocate by continuing the relationship through repeated patronage.

Relationship marketing theory has evolved to encompass a broader ecosystem perspective, where the firm-customer dyad is not viewed in isolation but as part of a wider network of stakeholders, including suppliers, employees, and other partners (Payne & Frow, 2017). This holistic approach reflects the increasing complexity of modern business environments, where firms must collaborate with multiple actors to deliver superior customer experiences. The value co-creation concept, which emphasises joint collaboration between firms and customers in generating value, is also integral to this broader relationship marketing framework. One of the critical areas of relationship marketing is customer loyalty. Research indicates that relationship marketing strategies are effective in enhancing customer loyalty by increasing customer satisfaction and emotional attachment to the brand (Mortimer et al., 2017). Emotional factors such as gratitude, trust, and reciprocity are essential components of relationship marketing as they mediate the relationship between firms' efforts and customer loyalty outcomes. Customers who feel emotionally invested in a brand are more likely to remain loyal, even in competitive markets.

Additionally, relationship marketing theory stresses the importance of personalisation and customisation in driving successful customer relationships. In today's digital age, technology allows firms to personalise their interactions with customers on a large scale, enabling more meaningful engagement (Gummerus et al., 2017). Personalisation strengthens the customer-firm relationship by addressing individual customer needs, preferences, and behaviours, which enhances the perceived value of the relationship from the customer's perspective. Moreover, relationship marketing theory acknowledges the significance of Corporate Social Responsibility (CSR) in forming strong customer relationships. Studies have shown that customers are increasingly likely to identify with brands that engage in ethical and socially responsible practices, which positively influences long-term loyalty (Huang et al., 2017). RM, therefore, integrates CSR into its framework as a way to build deeper emotional connections with customers by aligning with their values and social concerns. As relationship marketing continues to develop, scholars highlight the importance of addressing the "dark side" of relationship marketing, such as customer opportunism and dysfunctional behaviours (Payne & Frow, 2017). Future research must consider how firms can mitigate these risks while maintaining the positive aspects of relationship-building. Furthermore, the increasing use of digital

platforms for relationship marketing presents new challenges and opportunities for firms in managing customer relationships effectively in the digital landscape.