



STRATHCLYDE BUSINESS SCHOOL

DEPARTMENT OF MARKETING

**Novel Automated Technologies: How Do They
Enable Value Co-Creation, Value Co-
Destruction & Customer Brand Engagement?**

by

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Signed: Tichakunda Rodney Mwenje

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Abstract

As novel automated technologies continue to play an increasingly prominent role in value-based service settings, there is an increased likelihood that the way in which value is co-created and co-destroyed will concomitantly change (Paschen et al., 2021; Van Esch et al., 2019). Such technology-induced changes, along with their impacts on customers' experiences of value co-creation and value co-destruction, are the focus of this research. To this end, this research unveils a more accurate understanding of how novel automated technologies enable value co-creation, value co-destruction and customer brand engagement (CBE). On this basis, the thesis addresses four research objectives: (1) to explore how customers perceive the impact of brands' automated technology on their experiences of value co-creation and value co-destruction; (2) to examine the variables influencing CBE when customers interact with brands' automated technology; (3) to examine the CBE outcomes/consequences that occur when customers interact with brands' automated technology; and (4) to examine customers' reasons for using brands' automated technology during service encounters.

A mixed-method (qualitative and quantitative) approach is used for this research, consisting of semi-structured interviews and an online survey. Previous value co-creation research has primarily been qualitative or conceptual. For the first stage of data collection, 12 in-depth interviews were carried out. The sample included consumers who had interactions with the chatbot of at least one of the following brands: Asos, Amazon, Skyscanner and Vodafone. These interviews were conducted to explore how customers perceive the impact of brands' automated technology (chatbots) on their experiences of value co-creation and value co-destruction. The findings indicate that customers' experiences of value co-creation or value co-destruction are largely dependent on the characteristics of the chatbots they interact with. The chatbot characteristics identified include social presence, information quality, interactivity, personalisation, comprehension and empathy.

For the second stage of data collection, an online survey was administered. The sample consisted of 736 consumers divided across Amazon, Vodafone, O2 and H&M. The respondents had prior interactions with these specific brands'/service providers' chatbots. An online survey was conducted to examine the variables influencing CBE when customers interact with brands' automated technology, the CBE outcomes/consequences that occur following automated service interactions and customers' reasons for using these brands' automated technology.

The findings indicate that nine variables influence CBE in chatbot-enabled service settings: social presence, information quality, interactivity, personalisation and empathy, comprehension, utilitarian value, value co-creation and value co-destruction. Moreover, CBE was found to have a significant effect on customers' continuance intention with the chatbot and brand intention.

This research contributes to the value co-creation and CBE literature. Firstly, this research extends the value co-creation literature by exploring experiences of value co-creation and value co-destruction between customers and non-human actors (chatbots) within value-based service networks. Previous value co-creation research falls short in addressing the role non-human actors play in the value co-creation and value co-destruction process. Secondly, this research extends the value co-creation literature by revealing six key characteristics of chatbots and the role they play in the value co-creation and/or value co-destruction process. Previous value co-creation does not highlight the key characteristics of technology that facilitate customers' experiences of value co-creation or value co-destruction. Thirdly, this research extends the CBE literature by examining the 12 variables that influence CBE in automated (chatbot-enabled) service settings. Prior CBE research is yet to examine the variables that influence CBE in service settings that are chatbot driven. Fourth, this research extends the CBE literature by examining the impact of value co-creation and value co-destruction on CBE in settings where chatbots facilitate customer-brand interactions. Previous CBE research has not examined the impact value co-creation and value co-destruction have on CBE in chatbot driven service settings. Fifth, this research extends the CBE literature by examining customers' intention to continue using the chatbot as a consequence/outcome of CBE fostered in chatbot-enabled service settings. Previous CBE research is yet to examine the customers' continuance intention with the chatbot as an outcome of CBE in chatbot driven service settings.

Chapter One

Introduction

1.0 Research Background

Novel automated technologies, such as intelligent agents, virtual assistants and chatbots, are radically changing the interplay between customers and brands (Lariviere et al., 2017; Huang and Rust, 2021). The emergence of these novel technologies has led to brands recreating their entire business models (Hung and Rust, 2018; Heller et al., 2021). As a result, the ways in which products and services are being produced, delivered, experienced and consumed are changing rapidly (Chi et al., 2021). In addition, these novel technologies have shifted service delivery from being firm-centric to customer-centric (Shah et al., 2021).

This evolution has led to customers gaining substantial control over the management of the value-creation process (Payne et al., 2021; Vargo et al., 2020). Thus, as service functions encompassing automated technologies become more prevalent, there is an increased likelihood that the way in which value is co-created and co-destroyed will change (Karteemo and Helkkula, 2018; Paschen et al., 2021). Vargo et al. (2020) assert the critical need to study the rapid technology-induced changes in service ecosystems. Such technology-induced changes, along with their impacts on customers' experiences of value co-creation and value co-destruction, are the focus of this research. Specifically, this research explores how (and if) customers experience value co-creation and/or value co-destruction when interacting with brands' chatbots (automated technology) in value-based service networks. Toward this end, this research unveils a more accurate understanding of how chatbots shape the dynamics of value co-creation and value co-destruction.

According to Adamapoulou and Moussiades (2020), chatbots are programs that facilitate and process human conversation, allowing customers to interact with brands virtually as if they are communicating with human service representatives. Chatbots are referred to as digital assistants, virtual assistants, smart bots and interactive agents. Moreover, chatbots are programmed by brands/service providers to respond to customers' questions or perform product- or service-related tasks for the customer (Adam et al., 2021). Traditional automated technologies, such as automated teller machines and self-service technologies, imply a degree of standardisation with respect to service interactions and offerings (Erikson and Nilsson, 2007). However, this research focuses on novel automated technologies, specifically chatbots,

which have the potential to co-create value as they are advanced in terms of the volume of customer data they can store, the speed at which they process customer information and the accuracy of their feedback to customers (Wedel and Kannan, 2016; Paschen et al., 2020). According to Juniper Research (2022), consumer retail spending facilitated by chatbots will reach \$142 billion by 2024—an increase from just \$2 billion in 2019. In addition, the chatbot market is expected to amount to \$455 million in revenue by 2027, from \$35 million in 2018 (Statista, 2022). These figures illustrate the increasing willingness of brands and service providers to include chatbots within their customer journey as a primary customer touchpoint.

Chatbots provide organisations with vast opportunities to engage with consumers, as they have the ability to capture, analyse and exchange customer intelligence (i.e. resource integration) (Huang and Rust, 2021). Hollebeek et al. (2021) contend that automated service interactions offer consumers a growing opportunity for better value co-creation and enhanced customer brand engagement (CBE). While scholars claim that novel automated technologies co-create value and yield better CBE (Van Doorn et al., 2017; Huang and Rust, 2018), some suggest that the use of automated technologies in service interactions could lead to value co-destruction (Kunz et al., 2019; Echeverri et al., 2021; Hsu et al., 2021), an emerging theme in value co-creation literature. The issues outlined constitute the focus of this research.

1.1 Research Rationale

Although a more systems-oriented approach towards value co-creation has been suggested for more than a decade (Vargo et al., 2008; Vargo et al., 2020), the actual interaction between a customer and a firm is still considered the locus in service marketing (Echeverri et al., 2021). In essence, there is particular interest in value co-production (i.e. direct contact between a service provider and a beneficiary) as opposed to value co-creation that takes into account service ecosystem practices and institutional arrangements whereby automated technologies facilitate the interaction between the customer and the firm (Pohlmann and Kaartemo, 2017). This presents the assumption that conceptualisations of service ecosystems are mechanistic and rather static. Building on the research of Vargo et al. (2017), a systems perspective on service ecosystems, through the lens of service-dominant (S-D) logic, would construct a more accurate understanding of how novel automated technologies shape the experiences and dynamics of value co-creation and value co-destruction.

The literature acknowledges that technology has transformed service delivery and customer experience; however, there is an emphasis on understanding human-to-human interaction as opposed to human-to-non-human resource integration with respect to value co-creation. Thus, our understanding of how humans and automated technologies engage in resource integration is limited (Prentice et al., 2020a; Prentice et al., 2020b). Previous research focuses on how automated technologies complement employees in their jobs, as well as service delivery efficiency (Huang and Rust, 2018; Paschen et al., 2020; Payne et al., 2021; Huang and Rust, 2021). Researchers claim that automated technologies co-create value and yield better CBE (Hollebeek et al., 2021; Singh et al., 2021). However, some scholars suggest that the use of automated technologies in service interactions could drive value co-destruction (Kunz et al., 2019; Echeverri et al., 2021; Hsu et al., 2021).

1.2 Research Aims and Objectives

This research provides a new perspective on the concepts of value co-creation and CBE considering the evolved service ecosystems. On this basis, this research aims to explore how (and if) customers experience value co-creation and value co-destruction when interacting with brands' automated technologies in value-based service networks. The objectives of this research are as follows:

- (1) To explore how customers perceive the impact of brands' automated technology on their experiences of value co-creation and value co-destruction.
- (2) To examine the variables influencing CBE when customers interact with brands' automated technology.
- (3) To examine the CBE outcomes/consequences that occur when customers interact with brands' automated technology.
- (4) To examine customers' reasons for using brands' automated technology during service encounters.

1.3 Research Approach

This research adopts a pragmatic philosophical approach that fosters the understanding required to investigate the research objectives, thus enabling the researcher to use qualitative and quantitative research methods to gain interpretive (in-depth) and quantifiable insights. As previously outlined, little is known about the value co-creating and value co-destructing potentials of brands' automated technologies within value-based service networks. In addition, only a few empirical studies (Prentice et al., 2020a) have provided insights into the variables influencing CBE in automated service ecosystems. For this reason, this study adopts a mixed-method approach.

The qualitative element of the study consisted of 12 semi-structured in-depth interviews, which reached the point of data saturation (Saunders, 2018). The sample consisted of individuals who had used a specific brand or service provider's automated technology, specifically a chatbot (i.e., virtual assistant), during the service encounter. Although various novel automated technologies exist, this research focuses on chatbots because they are an initial customer touchpoint in the customer journey (Paschen et al., 2020; Payne et al., 2021; Grewal et al., 2020; Wilson-Nash et al., 2020). The first touchpoint of the customer journey is the point at which the customer first interacts with the brand or service provider. Thus, this has to be a positive experience that facilitates conversion and further engagement with the brand or service provider (Hollebeek et al., 2020). For this reason, chatbots have the ability to facilitate value co-creation and/or value co-destruction, which could impact customers' levels of engagement with a brand or service provider. The semi-structured interviews were used to achieve an in-depth understanding of customers' interactional experiences with brands' or service providers' chatbots while highlighting the characteristics of these automated technologies that facilitate value co-creation and value co-destruction.

The quantitative element of this study consisted of an online survey. The survey was designed using Qualtrics software and administered online by QuMinds, a UK-based market research firm. The initial sample consisted of 800 respondents; however, 64 responses were invalid, leaving 736 valid surveys for data analysis. The sample consisted of Amazon, H&M, Vodafone and O2 consumers. In the survey, consumers were prompted to select one of the four brands, after which the participants were asked two screening questions. The first assessed whether they had previously interacted with their chosen brand's chatbot. The second asked the

respondents to confirm whether an image below the question matched their chosen brand’s chatbot. Respondents who did not pass the screening questions were disqualified from the survey. Further details of the methodological approach are presented in Chapter 5. The quantitative aspect of the study was used to test the theoretical framework presented within this study and its variables.

1.4 Thesis Structure

Figure 1.1

Chapter 1: Introduction
This chapter presents the background of the research, focusing on value co-creation and the evolved service ecosystems. Thereafter, the rationale, context, research aims and objectives of the study are presented. Moreover, the philosophical underpinnings and best-fit methodology are outlined.
Chapter 2: S-D Logic, Value, Value Co-Creation and Value Co-Destruction
The chapter begins by providing an overview of S-D logic and its core elements. Thereafter, the concepts of value co-creation and value co-destruction are discussed from the customer’s perspective. In addition, resource integration, an integral component of value co-creation, is discussed. The chapter then elaborates on the term ‘value-in-use’ while highlighting its three dimensions: experience, personalisation and relationship. Furthermore, the themes surrounding value co-creation and technology, which include the general advancement of artificial intelligence (AI), service optimisation, resource integration and support of beneficiaries’ well-being, are presented.
Chapter 3: CBE
The chapter begins by conceptualising engagement and its evolution. Thereafter, key CBE definitions are presented while highlighting the widely cited dimensions of CBE. In addition, customer and firm perspectives of CBE are discussed. The effects of context on CBE are then revealed and illustrated with reference to previous studies. Furthermore, a review of the proposed antecedents and outcomes of CBE are presented while highlighting technology-related engagement platforms.

Chapter 4: Interaction

This chapter starts by presenting an overview of the three different forms of interaction, as discussed in the social sciences. Thereafter, interaction is discussed in a service context. Three types of interaction are discussed, namely, customer-to-employee interaction, customer-to-customer interaction and customer-mediated interaction. The current thesis focuses on technology-mediated interaction, particularly human-to-non-human interaction during a service encounter.

Chapter 5: Methodology and Research Philosophy

This chapter commences with a discussion of the different philosophical underpinnings, and the researcher justifies the use of the pragmatic approach. In addition, this chapter provides an extensive discussion and justification of the mixed-method (qualitative and quantitative) approach selected, consisting of exploratory semi-structured interviews and an online survey. A total of 12 in-depth interviews were conducted. The snowball sampling approach was adopted. The sample included consumers who had interacted with the chatbot of at least one of the following brands: Asos, Amazon, Skyscanner and Vodafone. Justification on why these brands/service providers and chatbots were chosen for the study was provided. The online survey had a sample of 736 respondents comprising Amazon, Vodafone, O2 and H&M consumers. The quota sampling approach was adopted for the online survey. These brands were chosen as they made use of chatbots for service delivery. Respondents were asked questions based on their past interactions with their chosen brand's chatbot. The chapter also outlines the screening process, given that the population of interest for the survey was niche. Moreover, mixed methodological limitations are presented. Lastly, the ethical considerations of the research are outlined.

Chapter 6: Exploratory Findings, Theoretical Framework & Hypothesis

This chapter presents the findings obtained from the 12 exploratory in-depth interviews conducted. In addition, insights into the characteristics of chatbots that influence value co-creation and/or value co-destruction, as well as how and if customers experience value co-creation and value co-destruction when interacting with brands' chatbots, are provided.

This chapter addresses Research Objective 1.

Moreover, this chapter presents the theoretical framework to be tested based on the findings from the in-depth interviews. In addition, the twelve variables to be tested in the

quantitative element of the research are presented. Among the twelve variables, seven (social presence, interactivity, personalisation, utilitarian value, value, co-creation, value co-destruction and CBE) are derived from the literature. Five variables (information quality, comprehension, empathy, brand usage intention and continuance intention) are derived from the in-depth interviews.

Chapter 7: Quantitative Data Analysis

This chapter introduces the research findings from the quantitative phase of the research. In addition, the chapter presents the numerous statistical techniques used to investigate the relationships between the variables outlined in Chapter 7. Specifically, two separate structural models are tested: one for value co-creation and one for value co-destruction. Statistical analysis software SPSS and Amos are used to conduct data analysis. This chapter addresses research objectives 2, 3 and 4.

Chapter 8: Discussion

This chapter presents a discussion of the findings of the quantitative study in Chapter 7, with reference to the in-depth interview findings in Chapter 6 and the literature reviewed in Chapters 2–3. This chapter also presents a discussion on all four research objectives: (1) to explore how customers perceive the impacts of brands' automated technology on value co-creation and value co-destruction, (2) to examine the variables influencing CBE when customers interact with brands' automated technology, (3) to examine the CBE outcomes (4) to examine customers' reasons for using brands' automated technology.

Chapter 9: Conclusion

The final chapter presents a conclusion for each of the four research objectives. In addition, the researcher outlines the six theoretical contributions of this study. The implications of the findings of this study on brands and service providers are then outlined. Lastly, research limitations and avenues for future research are highlighted.

Chapter Two

S-D Logic, Value Co-Creation and Value Co-Destruction

2.0 Introduction

The concept of S-D logic is central to interaction amongst actors in service ecosystems (Vargo and Lusch, 2016a). The current chapter begins by giving an overview of S-D logic and its core elements. Thereafter, a discussion on value and value co-creation is provided while discussing value as it is co-created by customers and highlighting the role of resource integration and interaction in the value co-creation process. Subsequently, perspectives on S-D logic and value co-destruction are presented. The fundamental propositions of S-D logic, which recently acquired an axiom status, are then highlighted. Resource integration, a core element of value co-creation, is discussed. In addition, the link between interaction and value is assessed. The chapter then provides an elaboration of the term ‘value-in-use’ while highlighting its three dimensions: experience, personalisation and relationship. Finally, the role of AI and technology in value co-creation is discussed.

2.1 S-D Logic

Since the introduction of S-D logic by Vargo and Lusch (2004), the concept has been adopted extensively and subjected to conceptual adjustment (Tran et al., 2021; Vargo et al., 2020; Hollebeek et al., 2019; Toscher, 2021). The rise of S-D logic, as opposed to goods-dominant logic (G-D logic), has signified the theoretical shift from value as a key element of a firm’s offering to value as the result of an experience jointly created by interactive actors (i.e. firms, customers and employees) in a specific context (Vargo et al., 2020; Hollebeek et al., 2021; Plé, 2016). The differences and evolution of the concepts of value and value co-creation have been discussed and reviewed systematically (Brodie et al., 2019; Hollebeek et al., 2019; Vargo and Lusch, 2016a).

Concisely, S-D logic proposes that the value of a service does not entirely exist; rather, it is a function of how customers intuitively interpret and perceive the benefits they can attain from interactive experiences supported by this particular service (Jaakkola and Alexander, 2014; Vargo et al., 2020; Brodie et al., 2019) In S-D logic, the term ‘value’ becomes ‘value-in-context’ or ‘value-in-use’ due to the phenomenological nature of value, suggesting that it is continuously co-created in use or context (Vargo and Lusch, 2016a; Vargo et al., 2020).

Ple (2016) suggests that ‘in a context-specific, collaborative experience, two or more actors interact, organise and integrate various resources consisting of their tangible assets, knowledge or skills’ (p. 230). Thus, an actor does not solely rely on his own resources in the co-creation; rather, that actor integrates their resources with the resources of the other actor or actors involved (Thuy et al., 2019; Toscher, 2021; Brodie et al., 2019). Accordingly, resource integration is a core element of value co-creation.

In the S-D logic perspective, interaction is the second core element of value co-creation (Thuy et al., 2019; Vargo et al., 2020). Ple (2016) provides an in-depth analysis of how value co-creation is facilitated by the interaction between a service provider and a customer and suggests that the interaction transpires through three main steps. The first is identified as resource access, whereby employees and customers obtain and provide access to specific kinds and quantities of resources of the other actors. The second step is resource adaptation. This step involves frontline employees customising customer resources they have accessed to ensure that these resources suit their resource needs. To ensure this suitability, employees also adapt their own resources. The third step is identified as resource combination and application. This step involves the ‘blending of the customers’ and employees’ resources, trailed by their instant application to co-create value’ (Ple, 2016, p. 241). According to Vargo et al. (2020), combination and application usually become fused into one step known as integration. This analysis sheds light on how the interaction between actors enables value co-creation.

2.2 The Concept of Value

The concept of value is an elusive notion that has gained scholarly attention for over three decades (Zeithaml et al., 2020). The concept of value has various definitions and conceptualisations. Christopher (1996) defines value in its simple form as ‘the overall gain or benefits over costs’ (p. 55). Sweeney et al. (2001) assert that value is the ‘market-perceived quality adjusted for the corresponding price of a product’ (p. 207). Subsequently, Gronroos (2008) defines value as ‘the trade-off between the quality or benefits the customer perceives in the product or service relative to the sacrifice’. More recently, Huang et al. (2019) suggest that customer-perceived value is the customer’s overall assessment of what is gained with respect to what is received and what is given. Moreover, Jiang et al. (2018) posit that customer-perceived value includes quality, benefits, utility and worth. However, a consensus on how value is defined and measured remains lacking. This is due to the different conceptualisations and definitions of value within the literature.

The identified conceptualisations are “value-in-exchange and value-in-use”. The subsequent sections discuss these distinct conceptualisations.

2.2.1 Value-in-Exchange

According to Vargo and Lusch (2006), value-in-exchange refers to the amount of money or goods paid by the customer to the service provider in exchange for a product or service. Gronroos and Voima (2013) suggest that the exchange of value is conceptualised through quantifiable indicators, such as money. As a result, value is created at a single point in time, which is the point of purchase, wherein the customer exchanges money with the brand/service provider for the product/service. This conceptualisation of value illustrates that the customer is a recipient of value created by the brand/service provider and provided to the customer in the form of products or services. In essence, the value is embedded in the product or service (Gronroos, 2020). Vargo and Lusch (2016) argue that the value-in-exchange approach fails to address joint value creation and the interactions that occur among different actors (e.g., humans and technology) within service ecosystems.

2.2.2 Value-in-Use

Early research by Gronroos (2008) challenges the value-in-exchange view and contends that value is created in the customers’ domain during the usage process as value-in-use. As a result, value is created through the customer’s value-creation process and not by the brand or service provider. Thus, the products or services provided by the firm to the customer become valuable to the customer once the overall value is assessed during the time of its use. Vargo and Lusch (2016) posit that value-in-exchange is a function of value-in-use; thus, value-in-exchange only exists if value-in-use can be created. In addition, value-in-use is identified as an outcome of the interaction between the actors within the service ecosystem (Luo et al., 2019). The value is experienced once the product or service has been consumed (Vargo and Lusch, 2016). An integral component of the value-in-use conceptualisation is that customers are responsible for determining value based on their preferences and evaluations of their interactions with actors within service ecosystems (Vargo et al., 2020). This research focuses specifically on the value-in-use perspective, whereby value is only created when the customer engages with the service and assesses its value along with the interactions experienced within the service ecosystem.

2.3 The Value Co-Creation Concept

Value co-creation is a widely studied concept with several definitions and conceptualisations (Akter et al., 2022; Goi et al., 2021; Zhang et al., 2022). Previous studies have primarily adopted either a customer or firm-based approach (Chatterjee et al., 2022; Vargo et al., 2020; Cui et al., 2022; Leone et al., 2021). As a result, there is an ongoing debate on which approach is more suitable. For instance, some scholars contend that the firm-based approach portrays the customers as an input into the firm's processes, making customers members of the firm (Leone et al., 2021; Woratschek et al., 2020). However, this approach differs from the view that suggests value co-creation exceeds the boundaries of the firm (Vargo and Lusch, 2016; Vargo et al., 2020). Roy et al. (2020) assert that the role of customers has shifted from customers being inert recipients of service to active actors with a role to play within the value co-creation process. This new active role for customers in delivering services and value co-creation varies based on the customers' collaboration with the brand or service provider across different stages of the customer journey (Merz et al., 2019). In support of this, Vargo et al. (2020) assert that customers can facilitate their own value co-creation and that of the brand or service provider. Therefore, customers are integral actors within the value co-creation process.

Alexander et al. (2018) state that customers have become involved in activities that were previously the brands' responsibility, thereby blurring the boundaries between the customers and brands/service providers. Some examples include customers promoting a product, service or brand to their customers on social media (Rather et al., 2021), providing ideas for product and service delivery (Payne et al., 2021) and self-service (Hsu et al., 2021) and co-designing products with the brand (Luo et al., 2019). Through this approach, customers become partial employees of the brand or service provider (Vargo et al., 2020). On this basis, this research focuses on the customer-based approach of value co-creation. The subsequent sections discuss the elements that make up the value co-creation process. These include resource integration (customer and firm resources as input), interaction as a process and co-creation experience as an outcome.

2.3.1 Resource Integration

Mele et al. (2021) assert that resource integration is an integral input for the value co-creation process. Prior research highlights two prominent types of resources, namely, customer and

firm resources (Davey and Gronroos, 2019; Payne et al., 2021). Vargo and Lusch (2016) suggest that customer resources are controlled by the customers and integrated with the resources presented by the firm. For this reason, previous studies have either focused on resource integration between customers and firms (Toscher 2021; Payne et al., 2021; Mele et al., 2021) or resource integration between firms (Paschen et al., 2021; Li et al., 2021).

More specifically, customers and firms integrate operand and operant resources (Vargo et al., 2020). Operand resources refer to resources that require action to become valuable, whereas operant resources refer to resources that can act on other resources to facilitate value creation. For this research, brands' and service providers' chatbots are identified as operant resources because they influence the way in which customers determine experiences of value co-creation. In addition, operand and operant resources are either tangible or intangible (Vargo and Lusch, 2016).

Vargo et al. (2020) suggest that the output of one actor is considered an input within the resource integration process in value-based service networks. Toscher (2021) contends that customers are resource integrators and co-creators. As outlined by Vargo and Lusch (2008), 'All economic and social actors are resource integrators' (p. 7). This suggests that the concept of value co-creation consists of complex interactions between various actors within value-based service networks, whereby all the actors involved present their resources with the goal of collaboratively creating value (Lusch, 2007; Vargo and Lusch, 2008). Toscher (2021) asserts that the resource integration perspective of value co-creation illustrates that no actor within these value-based service networks is self-sufficient. Instead, all the actors involved rely on each other to facilitate the creation of value. Therefore, resource integration is an integral element of value co-creation.

2.3.2 Interaction

Key concepts, such as co-production and value-in-use, have been presented in the literature to provide a succinct explanation of value co-creation (Dollinger et al., 2018; Wu et al., 2022). However, interaction is an additional concept with a vital role in the value co-creation process (Ramaswamy and Oscan, 2020). In support of this, Nangapire et al. (2021) assert that interaction plays a superior role in value co-creation.

Since S-D logic was introduced and researchers identified value co-creation, the concept of interaction has gained considerable scholarly attention. Researchers have focused on the interactions between customers and brands/firms (Brodie et al., 2011; Wang and Lang, 2019; Keeling et al., 2021). More recently, scholars have shifted their focus to how customers interact with brand- or firm-related resources (Payne et al., 2021; Mele et al., 2021, Toscher, 2021). This thesis explores how customers interact with brands' or service providers' automated technology (i.e. chatbots). The brands' and service providers' chatbots are the platforms for interaction between the customer and the brand/service provider. Key components of interaction include physical or virtual contact between the customer and the brand. Ledbetter and Meisner (2021) assert that the interaction process begins when an actor's actions create a response that yields informational, communicational and dialogical interactions. Customers' interactions with brands/service providers offer them the opportunity to actively participate in the service process and influence the service outcomes (Keeling et al., 2021; Rather et al., 2021).

Previous research suggests that the key aspects of interaction are informational exchange and social exchange, which, in turn, are crucial for value creation (Taylor et al., 2020; Langley et al., 2021). The informational form of a firm's interaction creates customer response with respect to the sharing of information and exchange of opinions (Thuy et al., 2019). Therefore, effective interaction would enable a firm to obtain useful information with respect to a customer's specific needs and preferences and the situation. Such input from customers is vital for a firm. For example, intelligent fashion chatbots allow customers to provide information on their preferences and desired style of clothes, including key details, such as measurements and clothing size. Such information is fundamental in enabling intelligent chatbots to present a best-fitting solution that meets the customer's preference, thus creating more value for the customer. Hollebeek et al. (2021) suggest that customer input allows brands to personalise and execute the service efficiently in a manner that is fit for the customer, leading to better service quality and customer-created value (Hollebeek et al., 2021). The concept of interaction is discussed further in Chapter 4.

2.3.3 Value Co-Creation Definitions

Value co-creation is a direct output of the interaction process that occurs between customers and brands in value-based service networks (Nangapire et al., 2021; Kaartemo and Helkkula, 2018; Bonamigo and Frech, 2020). Gronroos (2020) asserts that value is derived from the

interaction and consumption experiences of customers. In the current research, value is either co-created or co-destroyed when customers interact with brands' automated technology (i.e. chatbots). As previously mentioned, the concept of value co-creation has several definitions. The subsequent sections present prominent definitions identified from the value co-creation literature. These definitions are presented in Table 2.1.

Table 2.1 Value Co-Creation Definitions

Author	Definition	Approach
Vargo and Lusch (2008)	'Value co-creation is not restricted to the activities of an exchange within a service system. Value is co-created through the integration of existing resources from actors within these service systems that can contribute to a system's well-being'.	Conceptual
Vargo et al. (2008)	'Value co-creation is not restricted to the activities of an exchange within a service system. Value is co-created through the integration of existing resources from actors within these service systems that can contribute to a system's well-being'.	Conceptual
McColl-Kennedy et al. (2012)	The overall benefit obtained from the integration of customer and firm resources through dyadic interactions within service ecosystems.	Qualitative
Jaakkola and Alexander (2014)	Value co-creation by virtue of customers' diverse	Qualitative

	resource contributions towards the focal firm and other stakeholders that modify and/or augment the offering and/or affect other stakeholders' perceptions, preferences, expectations or actions towards the firm or its offering.	
Peredes et al. (2016)	The integration of the customers' operand resources with the brands' operand and operand resources to jointly create value.	Qualitative
Zhang et al. (2018)	'Value co-creation results when customers feel that their feedback is important and/or valued. Feeling that 'because of me, the service has been improved' plays a critical role in encouraging customer engagement'.	Qualitative
Hollebeek et al. (2019)	'The customer's perceived value from interactive, joint, collaborative or personalised activities for or with brand-related stakeholders'.	Conceptual
Hein et al. (2019)	Value co-creation involves the integration of existing resources and knowledge with actors in the ecosystem,	Qualitative

	resulting in new service opportunities.	
Saha et al. (2020)	Value co-creation occurs within a service system, whereby customers and firms are joint collaborators in the creation of value.	Quantitative
Akter et al. (2022)	Adapted from Lusch and Vargo (2014): ‘Value co-creation is regarded as a resource integration process where various actors (e.g. service providers and consumers) engage in a process to perform a common task, which is co-creating value through the integration of resources (technology, money).	Quantitative
Ravazzani and Haze (2022)	Systems of resource-integrating actors connected by shared institutional arrangements jointly participating in service exchange and value creation.	Conceptual

Given that perceptions of value are contextually dependent (Vargo et al., 2020; Payne et al., 2021), Vargo et al. (2008) suggest that value co-creation is the active participation of actors within a contextual service ecosystem, which occurs through the integration of resources. In support of this, Vargo et al. (2020) state that the role of customers within the value-based service networks’ value co-creation process is to participate and integrate resources,

highlighting the significance of resource integration in the process. Moreover, scholars suggest that value co-creation is an outcome of customer-brand resource integration that occurs through dyadic interactions (Payne et al., 2021; Alexander et al., 2018; Vargo and Lusch, 2016).

Some researchers view value co-creation as value-in-use (Gronroos and Voima, 2013; Gronroos, 2020). Interaction and resource integration are key components of this value, with a focus on customer involvement in the value-creation process. Therefore, brands and service providers view customers as competent resources. Hein et al. (2019) define value co-creation as the integration of existing resources and knowledge with actors in the ecosystem, resulting in new service opportunities. Their study emphasises the importance of efficient resource integration for value to be co-created.

Until recently, previous studies have fallen short in highlighting the types of resources integral to value co-creation, as well as how these resources should be integrated (Vargo et al., 2008; Gronroos, 2013; Vargo and Lusch, 2016; Hein et al., 2019). Researchers suggest that future studies should explore the significance of various resources within value-based service networks and how these resources influence value co-creation (Hein et al., 2019; Brodie et al., 2019). The current study answers this call by exploring how brands' and service providers' chatbots (a firm operant resource) influence value co-creation.

Zhang et al. (2018) suggest that value co-creation results when customers feel that their feedback is important and/or valued/recognised. The definition of the feeling 'because of me, the service has been improved' (p. 63) is premised on the participation of customers in brand-related activities, which, in turn, drive customer engagement (CE). Hollebeek et al. (2019) define value co-creation as a customer's 'perceived value arising from interactive, joint, collaborative or personalised activities for or with (brand-related) stakeholders. This definition focuses on the collaborative aspect of interactions between customers and brands, which, in turn, yields value for the customer. Akter et al. (2022) state that value co-creation is regarded as a resource integration process, wherein various actors (e.g., service providers and consumers) engage in a process to perform a common task, that is, co-creating value through the integration of resources (technology, money). Therefore, value co-creation arises from interaction and collaboration.

In summary, the concept of value co-creation has been defined and conceptualised by several scholars. The summary of value co-creation definitions presented in Table 2.1 illustrates the

limited quantitative studies that define value co-creation from a CBE perspective, with most studies being qualitative or conceptual in nature.

2.4 Customer Logic and Service Logic Approach to Value Co-Creation

Chatterjee et al. (2021) propose that the concept of value co-creation should adopt a reverse perspective, whereby firms focus on becoming actively involved in customers' lives as opposed to focusing on getting customers to partake in co-creation with the brand or service provider. In addition, they contend that value-in-use is a result of customer logic and interactional experiences. Moreover, they argue that the concepts of G-D logic and S-D logic are firm-centric and not customer-centric. Therefore, Chatterjee et al. (2021) support the concept of customer-dominant logic.

Wibowo et al. (2021) suggest that there are three main approaches to value co-creation. The first is the service logic approach, which is distinct from customer-dominant logic and provider-dominant logic. The second is the S-D logic approach, which focuses on the interaction and integration of resources between actors within value-based service networks. The third is the multiple-actor approach, whereby value is co-created through the groupings of multiple actors within value-based service networks.

Tran et al. (2021) state that the primary difference in the views of S-D logic and service logic is linked to the identification and roles of actors involved in the value co-creation process. Wibowo et al. (2021) contend that S-D logic falls short in highlighting the roles of the actors involved in these value-based service networks, the nature and locus of value and the roles actors adopt when partaking in the co-creation of value. Hau et al. (2017) assert that despite service logic adopting the view that goods and services are resources designed to give service to customers, it is distinct from the concept of S-D logic. Medberg (2016) argues that the roles of firms and customers in value creation remain unclear and require further theoretical elaboration.

According to Osborne (2018), service logic proposes three domains (collaboration between the customer and the firm) where the firm and the customer's actions may be identified. In comparison to S-D logic, which asserts that all value is co-created, service logic contends that value is only co-created in specific situations, such as direct personal interactions between the customer and the firm in the joint sphere (Gronroos and Voima, 2013; Medberg, 2016). Without any direct interactions between the customer and the firm, value co-creation is not

possible. Thus, the role of the firm is that of a facilitator, with the customer being the only creator of value (Vargo and Lusch, 2016a; Hollebeek et al., 2019; Vargo et al., 2020; Payne et al., 2021). In addition, the service logic perspective recognises that the firm has the potential to negatively influence the customer's value creation (Osborne 2018). The idea of customers as independent creators of value is also not shared within S-D logic. Although S-D logic acknowledges that an actor may uniquely evaluate and assess value, service logic proposes that actors cannot create value on their own (Wobowo et al., 2021). Prior research by Gronroos and Voima (2013) is valuable with regards to considering domains where value co-creation can be empirically investigated and the possibility of the value-creation processes (customer-firm interactions) being negative or positive.

Ramaswamy and Ozcan (2018) propose three key issues that should be the focus when identifying the nature and developing an understanding of value co-creation. The first is the identification of the type of value and for whom it is intended (e.g., What is the benefit for the customer or the firm, and how is value creation being supported?). The second is the identification of the resources (e.g., What firm or customer resources are being integrated into the customer's or firm's value-creating processes?). The third is the identification of the platform (e.g., What is the platform through which the firm or customer resources are integrated to facilitate creation?). The framework proposed by Ramaswamy and Ozcan (2018) is not only useful for understanding value co-creation but is also relevant for exploring the concept of value co-destruction, which occurs as a result of negative customer-firm interactions. The concept of value co-destruction is presented in the subsequent section.

2.5 Value Co-Destruction

Value co-destruction is a potential outcome of interactive value-creation processes (Echeverri et al., 2021). The concept of value co-destruction has recently gained scholarly attention, resulting in an emerging body of literature on value co-destruction (Keeling et al., 2021; Castillo et al., 2020; Hsu et al., 2021; Lv et al., 2021). Ple and Caceres (2010) first propose the concept of value co-destruction in a theoretical paper. The concept is defined as 'an interactional process between service systems that results in a decline in at least one of the systems' (e.g. the customer's or brand's) well-being' (p. 431). Castillo et al. (2020) suggest that prior value co-creation research has often considered the interactions between actors as pleasant and of mutual benefit. However, Ple and Hsu et al. (2021) contend that value co-destruction is a key component of the interaction between a firm and a customer.

They suggest that the application of operant resources (e.g. skills and knowledge) does not only co-create value but also co-destructs value. Several scholars have debated the concept of value co-creation, and an ongoing debate surrounding its conceptualisation and definitions exists. Table 2.2 adapted from Echeverri and Skalen (2021) presents a summary of the prominent definitions drawn from the value co-destruction literature.

Table 2.2 Value Co-Destruction Definitions

(Adapted from Echeverri and Skalen, 2021)

Author	Definition	Approach
Ple and Caceres (2010)	An interactional process between service systems that results in a decline in the well-being of at least one of the systems.	Conceptual
Crowther and Donland (2011)	Accidental misuse of resources during interactions.	Qualitative
Worthington and Durkin (2012)	The opposite of value co-creation.	Qualitative
Smith (2013)	Resource loss during an interaction between service systems that results in a decline in the well-being of at least one of the systems.	Qualitative
Robertson et al. (2014)	Misuse of resources in service systems' resource integration.	Conceptual
Ple (2016)	Decline in value during interactions through resource integration.	Conceptual
Chowdhury et al. 2016	Intentional or accidental misuse of resources.	Qualitative
Kantenen (2017)	Collaborative destruction of value.	Conceptual
Ple (2017)	A decline in the well-being of at least one of the interacting actors.	Conceptual
Quach and Thaichon (2017)	Value co-destruction revolves around a set of resources. An iterative relationship exists between value co-destruction and value co-creation.	Qualitative

Caic et al. (2018)	Diminished well-being for at least some of the actors in the value network.	Qualitative
Luo et al. (2019)	An interactional process whereby misbehaviour of other customers leads to a decline in value.	Quantitative
Echeverri and Skalen (2021)	A collaborative process that results in the decline in the well-being of at least one of the interacting actors.	Conceptual
Lv et al. (2021)	Value co-destruction may arise through the misalignment and misuse of resources and/or practices.	Qualitative

Table 2.2 illustrates that the definitions of value co-destruction emphasise the misuse of resources or practices and the decline in the well-being of at least one of the service systems. Ple and Caceres (2011) define value co-destruction as ‘an interactional process between actors or service systems that leads to a decline in at least one of the systems’ well-being’ (p. 431). The service system can either be a brand, a firm, a service provider or an individual (e.g. customer or consumer (Ple and Caceres 2011)). Extending this definition, Echeverri and Skalen (2021) define value co-destruction as ‘the collaborative or joint diminishment or destruction of value by brands and customers/consumers’ (p. 355). Daunt and Harris (2014) highlight that the diminishment or decline of well-being or value is considered an outcome of this process. Moreover, Daunt and Harris (2014) state that well-being and value are not one-sided. The diminishment, decline or destruction of value can be experienced by any of the actors involved in the interaction process. The definitions presented in Table 2.3 illuminate how value co-destruction differentiates from adjoining streams of research, including research on customer complaints (Shooshtari et al., 2018) and customer misbehaviour (Dootson et al., 2021; Rummelhagen et al., 2019).

The concept of S-D logic does not only influence value co-creation but also value co-destruction. First, prior value co-destruction definitions highlight that the interactions leading to a decline in well-being and value occur within or between service systems. Service systems (or service ecosystems) are a key component of the S-D logic concept (Vargo and

Lusch, 2016), suggesting that value co-creation or value co-destruction is experienced during interactions between multiple actors (brands, service providers, customers, etc.) that share a mutual goal. Previous research also suggests that value co-destruction may occur during other interactions aside from those between service providers/brands and customers (Tsiotsou, 2016; Ple, 2016; Farquhar and Robson, 2017). Therefore, the current research extends previous research by focusing on the occurrence of value co-destruction when customers interact with a brand's or service provider's automated technology (e.g. chatbot), where the brand's chatbot is an integral actor within the value-based service ecosystem.

Second, previous definitions of value co-destruction emphasise resource integration, which is also an integral component of S-D logic. According to Vargo et al. (2016), resource integration suggests that value is created by actors within the value-based service networks integrating operand (tangible) and operant resources (intangible resources). Lv et al. (2021) argue that value co-destruction is a direct result of the misuse of resources. In addition, they contend that the term 'misuse' in this context refers to 'an actor's failure to integrate and/or apply resources in a way that is fitting and expected by the other actor/service system' (p. 434). Luo et al. (2019) provide a clear distinction between the intended and unintended misuse and application of resources, asserting that the most common form of resource misuse is unintended.

Although the value in service settings is jointly recognised through customer and brand/service provider interactions, value co-destruction can occur when customers and firms adopt unrelated elements of value practises (Echeverri and Skalen, 2011, p. 368). However, the term 'co' in value co-destruction emphasises the fact that it is a collaborative process, which should be carefully considered (Echeverri et al., 2021). Caic et al. (2018) argue that such emphasis suggests that each actor within the service network has a prominent role in the process of value co-destruction, although not all actors take part equally. For the purpose of this research, the brand's automated technology (chatbot) plays a significant role in facilitating customers' experiences of value co-destruction. The brand applies a resource (the chatbot) to the customer journey; however, this resource (chatbot) may not meet the expectations or needs of the customer, and the customer may not use the chatbot for its intended purpose (i.e., the customer seeks information about X, but the chatbot only has the ability to deal with Y). As a result, the customer experiences value co-destruction.

The definitions presented in Table 2.2 adopt either a qualitative or conceptual approach, except for one study. Therefore, researchers should study value co-destruction using a quantitative approach. The current research extends the value co-destruction literature by adopting a mixed-method approach (qualitative and quantitative), which is discussed further in Chapter 5.

2.6 S-D Logic Propositions to Axioms

The original propositions of S-D logic by Vargo and Lusch (2004) were refined in Vargo and Lusch (2008a); however, a recent consolidation saw the promotion of four of the propositions to axiom status, signifying their prominence for S-D logic (Brodie et al., 2019; Hollebeek et al., 2019). Vargo and Lusch (2016) also develop an 11th fundamental proposition, referred to as the fifth S-D logic axiom. The subsequent subsections highlight two axioms of S-D logic that are relevant for value co-creation (axioms 4 and 5) from a CBE perspective. CBE is an integral component of value co-creation. This concept is discussed further in Chapter 3.

2.6.1 Customer-Determined Value

According to Vargo et al. (2020), value is always determined by the beneficiary (i.e. customer), highlighting the experiential, subjective and contextual nature of a service system-based co-creation that is also applicable to CE. The fourth axiom demonstrates that although firms create value propositions, the customer controls the intensity of the resultant perceived co-creation (Hollebeek et al., 2019). The overall evaluation of the interactions between the customer and the firm lies in the mind of the customer; thus, it may not be fully controlled by the firm or its employees. Tran et al. (2021) suggests that while the perceived interactional value may be substantial and positive for one actor (i.e. a customer), this may be neutral, negative or unimportant for other service system actors (i.e. frontline employees getting their salaries deducted by the firm due to lost revenue).

2.6.2 Institutions and Institutional Arrangements

According to Vargo and Lusch (2016), value co-creation is facilitated through actor-generated institutions and institutional arrangements. Scott (2008) explains institutions as ‘humanly devised rules, norms and beliefs that enable and constrain action and make social life predictable and meaningful’ (p. 434) and institutional arrangements as ‘dependent combinations of institutions’ (p. 435). On this basis, the fifth axiom adopts the idea of collective, networked actors and service systems in the conceptual domain of S-D logic (Brodie et al., 2019). Service systems are value co-creation networks of firms, people,

technology and shared information. Thus, service ecosystems are ‘systems of resource-integrating actors connected by shared institutional logics and mutual value creation through service exchange’ (Vargo et al., 2020). Relational ecosystems are webs of interconnections among relational entities that operate as a system and influence customer decision-making behaviours (Hollebeek et al., 2019). These concepts illustrate institutional arrangements with an emphasis on interactivity, relationships and stakeholders’ value co-creating intent, which are fundamental to CE and S-D logic (Hollebeek et al., 2021; Vargo et al., 2020; Rather et al., 2021).

2.7 The Importance of Resource Integration in Value Co-Creation

Toscher (2021) states that resource integration is a ‘continuous process’ that involves various actions and activities performed by an actor (Rather et al., 2021). Resource integration is more sophisticated than just combining resources; it involves a combination of resources that result in contextualised configurations of those resources. The outcomes of this integration may then be applied through interactions among actors to co-create value (Vargo et al., 2020)

Hollebeek et al. (2019) explain customer resources as ‘the customer’s incorporation and application of focal operant and/or operand resources into the processes of other actors in brand-related utility optimisation processes. For example, Amazon customers order operand resources (groceries) from Amazon Fresh because it is convenient. In the process of doing so, they integrate their personal resources (effort spent researching and money) with Amazon. Hollebeek et al. (2019) assert that there are two reasons why resource integration is fundamental for the development of CE. First, specific customer resources are integrated with the firm by interaction, thereby representing CE (Brodie et al., 2019). Second, the value-creating intent of customer resource integration is shared with CE (Hollebeek et al., 2021). For example, a user interacting with TOBI, the Vodafone chatbot (operand resource), uses their cognitive ability, time and money (operant resources) to facilitate a mobile phone upgrade from Vodafone. This process does not only reflect resource integration between the customer and the firm but also demonstrates the customers’ cognitive, behavioural and emotional investments into focal object-related interactions, rendering CBE as per the widely cited definition by Hollebeek et al. (2014). This definition states that CBE is ‘a customer’s positively valenced brand-related cognitive, emotional and behavioural activity during or related to focal customers/brand interactions’ (p. 149).

2.8 Value-In-Use Elaborated

Value develops through customers' use of context and processes involving their individual experience, time, location, thought and relational affect (Ranjan and Read, 2016; Vargo and Lusch, 2004). Value is co-created during use, referred to as value-in-use, since customers assess and decide the value of a firm's proposition based on usage (Ranjan and Read, 2016; Vargo and Lusch, 2004; Vargo and Lusch, 2008). Succinctly, value-in-use explains the extent to which a customer feels better off after their consumption-related experience (for example, using the Domino's Pizza chatbot to place an order for delivery). Vargo et al. (2020) propose that value-in-use is a multi-dimensional construct consisting of three dimensions, namely, experience, personalisation and relationship. Experience is defined as a memorable, cognitive and emotional interaction that creates intrinsic value. Personalisation refers to the uniqueness and individuality of the usage process, where the value is determined by the customer's individual needs. Relationship is explained as a mutual, lasting exchange and collaboration between a customer and a focal object in active communication settings. According to Taylor et al. (2021), relationship and collaboration assist with empowering customers by solving problems, thereby rendering value. In S-D logic, customers act as network partners, having the ability to co-create their own values and experiences. Meanwhile, market actors (i.e. firms) possessing the relevant resources serve as value facilitators, supporting the value-creation process by acknowledging, developing and offering fitting value propositions to customers (Hollebeek et al., 2019; Wibowo et al., 2021).

Although the idea of value-in-use is central to S-D logic and is increasingly becoming vital to understanding customers' needs, research has rarely explored value-in-use in relation to new and emerging automated technologies driven by AI. The following section discusses the role of new technology in value co-creation.

2.9 AI and Automated Technologies: Themes Identified in the Service Marketing Literature

Following an extensive review of the literature on AI and novel automated technologies, the researcher identified four key themes that have consistently emerged over the past 20 years. These themes include the use of AI and its advancement in service marketing, service optimisation, supporting service providers, enabling resource integration, and supporting beneficiaries' well-being. Table 2.3 provides an illustration of these themes.

Table 2.3 Themes Identified in AI and Automated Technology Research

Theme	Number of Articles (Percentage %)	References
General advancement of AI and its use in marketing	11 (24%)	Chintagunta et al. (2016); Grewal et al. (2017); Guo et al. (2018); Kumar et al. (2019); Antons and Breidbach (2019); Dekimpe (2020); Netzer et al. (2019); Pitt et al. (2020); Valls et al. (2020); Chen et al. (2020); Simester et al. (2020)
Service delivery optimisation (firm perspective and customer perspective)	19 (41%)	Hamid and Iqbal (2004); Cui and Curry (2005); Evgeniou et al. (2007); Pontil and Toubia (2007); Hamid and Iqbal (2004); Hauser et al. (2010); Parry et al. (2011); Kim (2011); Yu and Hurang (2013); Schwartz et al. (2014); Liu et al. (2016); Jalal et al. (2016); Huang and Luo (2016); Edwards et al. (2017); Huang and Rust (2018); Naumov (2019); Prentice et al. (2020a); Prentice et al. (2020b); Lv et al. (2022)
Enabling resource integration	12 (26%)	Glushko and Nomorosa (2013); Verma (2014); Fan et al. (2016); Van Doorn et al. (2017); Wirtz et al. (2018); Huang and Rust (2020); Paschen et al. (2020); Castillo et al. (2021); Verma and Yadav (2020); Payne et al. (2021); Toscher (2021); Leone et al. (2021)
Supporting actors' well-being	4 (9%)	Caic et al. (2019); Mele et al. (2021a); Mele et al. (2021b); Jain et al. (2021)
Total	46 (100%)	

2.9.1 The Use of AI in Service Marketing

A limited number of studies have focused on the progression of AI and similar technologies in marketing. Huang and Rust (2018) discuss the ability of AI to complement brands in their marketing efforts through segmentation, targeting and positioning. Several researchers highlight that machine learning algorithms and AI may be applied in banking, marketing, retail

and tourism for the identification of profitable customer segments (Valls et al., 2018; Netzer et al., 2019; Pitt et al., 2020; Dekimpe, 2020). Chen et al. (2020) assert that the integration of AI and machine learning may help brands in narrowing down their target customers.

Dekimpe (2020) discusses the role of AI-based marketing analytics tools and suggests that these tools can assess the suitability of product design to the customer's needs and subsequent satisfaction. Anton and Breidbach (2019) conduct a study focusing on online retail and product recommendations. Their findings reveal that the preference weight assigned to product attributes during product search enables brands to understand their product recommender system and enhances its alignment with customer needs. In line with this, Guo et al. (2018) and Kumar et al. (2019) suggest that AI and machine learning take personalisation to a level where customers can explore new things.

Although there is an emerging body of literature surrounding novel automated technologies and their role in marketing, there is a shortfall when it comes to the discussion of these technologies and their role in value co-creation. S-D logic acknowledges that actors encompass more than humans; they also include machines and technologies (Vargo et al., 2020; Huang and Rust, 2020). Therefore, a more comprehensive understanding of novel automated technologies and their role in the co-creation of value within service ecosystems is needed.

2.9.2 Service Optimisation

A great deal of the literature presented in Table 2.3 focuses on how AI and various automated technologies support service providers by optimising service delivery from the firm and customer perspectives. For instance, AI is shown to have better predictive power than more traditional methods (Fish et al., 2004; Hamid and Iqbal, 2004; Jalal and Karlsson, 2016; Kim, 2011; Liu, et al., 2016; Parry et al., 2011). In addition, research shows how machine learning can be employed to understand customers' preferences in services, thereby enhancing the service experience (Hauser, 2016; Huang and Luo, 2016). Research also shows that AI provides cognitive support for customers in new product selection decisions and assesses the helpfulness of reviews (Singh et al., 2017). Edwards et al. (2017) discuss how robots, in addition to hard labour, replace numerous jobs within the hospitality industry that require cognitive skills and ability. Huang and Rust (2018) lay out a map for the way firms should decide between humans and machines in carrying out intuitive and empathetic tasks.

Prentice et al. (2020a) explores how AI and emotional intelligence (EI) impact employee performance and retention within the hotel industry. Their findings suggest that EI significantly affects employee performance and retention. In addition, AI is found to moderate employee performance. Prentice et al. (2020b) examine the impact of AI and employee service quality on customer loyalty and customer satisfaction. Their findings suggest that AI and employee service quality have a significant effect on customer loyalty and customer satisfaction. Moreover, research by Lv et al. (2022) focuses on AI and its role in service recovery. Their study makes use of four experimental scenarios. The findings suggest that a response with a high level of empathy enhances the customers' continuance intention during service recovery. In essence, an empathetic response by the AI consisting of multisensory stimulus (text and voice) enhances the service recovery effect of empathetic responses.

2.9.3 Resource Integration

Apart from complementing brands and service providers, AI and corresponding technologies can learn customer preferences, thereby facilitating resource integration between customers and brands/service providers (Huang and Rust, 2020). Brands and service providers can anticipate customer choices during the customer journey through machine learning (Van Doorn et al., 2017; Fan et al., 2016). Glushko and Nomorosa (2013) present five scenarios that involve encounters between a beneficiary (customer) and a service provider. They compare human-to-human service encounters to human-to-non-human (machine) service encounters. Their findings suggest that machines can provide beneficiaries (customers) with a more personalised service experience.

Van Doorn et al. (2017) present the term 'automated social presence', which refers to the extent to which machines make customers feel that they are in the presence of another human. They contend that customers will have contrasting expectations of automated social presence during service encounters depending on the level of anthropomorphism (human-like characteristics), the level of technology readiness, the intentions and emotions embedded within these machines and the customers' relationship orientations.

Huang and Rust (2020) discuss how AI presents opportunities for better engagement through social media platforms. Customers decide what content they want to see, the place and the time.

Thus, the successful integration of AI with customer data offers enhanced personalisation of content and messages in line with the customer's profile and likes. Huang and Rust (2018) state that AI robots in frontline service settings greet and engage with customers. However, the human element and some levels of effort (customer's time) are needed to complement the service environment for customer satisfaction. Paschen et al. (2020) investigate the roles and resources exchanged between humans and machines during the value co-creation process. Their findings suggest that human and non-human actors adopt at least six different roles during the value co-creation process, either jointly or independently.

2.9.4 Supporting Actors' Well-Being

Only a few studies have focused on the use of AI and corresponding technologies to support actors' well-being. Caic et al. (2019) conduct a study in the context of elderly care networks and establish six roles of socially assistive robots, including enabler, ally, replacement, extended self, deactivator and intruder. These roles are linked to cognitive support, safeguarding and social contact. Mele et al. (2020a) analyse the role of cognitive assistants as boundary objects in value co-creation practices. The study includes the perceptions of the main actors (patients and informal caregivers). Their findings indicate that the cognitive assistant acts as a boundary object by bridging actors, resources and activities. They enact the boundary work of actors by generating two value co-creation practices, namely, engaging ageing actors in a healthy lifestyle and empowering ageing actors in care. Mele et al. (2020b) explore actors' value co-creation prompted by AI-driven nudged choices. Their findings suggest that these technologies enact a variety of choice architectures and nudges to contribute to value co-creation.

2.10 Conclusion

The literature was reviewed to understand the theoretical evolution of S-D logic, value, value co-creation and value co-destruction. The term 'value' was found to have numerous definitions based on its different conceptualisations, such as 'value-in-use' and 'value-in-exchange'. This research focused on the value-in-use perspective, whereby value is only created when the customer engages with the product/service and assesses its value, along with the interactions experienced within the service ecosystem. In addition, the different perspectives of value co-creation and value co-destruction were presented, including the resource integration and CBE perspectives. Definitions were presented in line with these perspectives. The findings indicated

that previous studies were mostly qualitative and conceptual (Vargo et al., 2008; Heinonen et al., 2011; McColl-Kennedy et al., 2012; Ranjan and Read, 2016; Ple and Caceres, 2010; Robertson et al., 2014; Ple, 2016; Chowdhury et al., 2016; Kantenen, 2017; Ple, 2017; Quach and Thaichon, 2017; Luo et al., 2019; Echeverri and Skalen, 2021; Lv et al., 2021; Hollebeek et al., 2019; Akter et al., 2022). Therefore, quantitative studies adopting a quantitative approach when focusing on value co-creation and value co-destruction are lacking. This research extends the literature by adopting a mixed-methods approach (qualitative and quantitative). This is discussed further in Chapter 5.

Moreover, four research themes were identified, including the general advancement of AI within marketing, service optimisation (customer and firm perspective), enabling resource integration between service providers and beneficiaries and supporting beneficiaries' well-being. However, these themes do not provide insight into the value co-creating and value co-destructing potentials of chatbots (AI-driven automated technologies) in value-based service networks. Therefore, the current thesis addresses the gap by exploring how customers perceive the impact of brands' automated technology on their experiences of value co-creation and value co-destruction in value-based service networks. The study offers a differing perspective by exploring customers' interactional experiences with chatbots during the value-creation process. Recent research within this domain has focused on a singular approach: value co-creation or value co-destruction (Osborne, 2018; Roy et al., 2020; Ramaswamy and Ozcan, 2018; Chatterjee et al., 2020; Paschen et al., 2020; Lei et al., 2020; Mele et al., 2020a; Mele et al., 2020b; Castillo et al., 2021; Jain et al., 2021; Hollebeek et al., 2021). This research adopts a dual approach, exploring both value co-creation and value co-destruction.

Chapter Three

Customer Brand Engagement

3.0 Introduction

The concept of CBE is a key outcome of value co-creation (Keeling et al., 2021; Vargo et al., 2020; Hollebeek et al., 2019). Therefore, it is imperative to discuss the concept of CBE. The chapter begins by conceptualising engagement and its evolution. Thereafter, key CBE definitions are presented while highlighting the widely cited dimensions of CBE. Afterwards, a discussion on the perspectives of CBE is provided. The effects of context on CBE are then revealed and presented with reference to previous studies. Furthermore, a review of the proposed antecedents and outcomes of CBE is presented. Lastly, an overview of CBE platforms is provided.

3.1 Conceptualisation of Engagement

Engagement was first conceptualised by Kahn (1990), who investigated its psychological preconditions. Currently, brands are measuring CBE and creating programs to engage customers in response to customers' growing resistance to traditional marketing programs (Kuns et al., 2017; Fernandes and Esteves, 2016). Over the last decade, the term 'engagement' has been increasingly used in broader academic literature, and extensive scholarly attention has been allocated to CBE in marketing academia (e.g. Kumar et al., 2010; Brodie et al., 2011; Vivek et al., 2012; Jaakkola and Alexander, 2014; Hollebeek et al., 2014; Van Doorn et al., 2017; Harmeling et al., 2017; Ahn and Back, 2018; Alexander et al., 2018; Hollebeek et al., 2019; Brodie et al., 2019; Wang, 2021; Kull et al., 2021; Hollebeek et al., 2021). Alexander et al. (2018) state that an individual's engagement with a brand is characterised by an emotional bond that goes beyond loyalty and satisfaction. In accordance with this, Kumar (2021) states that an emotional attachment is established when customers are satisfied with their relationship with a brand; thus, the customer is said to be engaged with the brand. The concept of engagement has roots within the concept of S-D logic, and engagement occurs as a result of dyadic interactions (Alexander et al., 2018; Hollebeek et al., 2019).

When exploring the literature, the concept of engagement appears slightly disarranged, being an all-inclusive concept or synonym of other constructs, such as participation, involvement, loyalty and commitment. As a result, it is common to come across different sub-types of engagement, namely, CE (Brodie et al., 2019; Wang, 2020), CE and/or CE behaviour (Roy et

al., 2021), CBE (Hollebeek et al., 2014; Ahn and Back, 2018; Hollebeek et al., 2020) and actor engagement (Alexander et al., 2018). The current thesis focuses on CBE as it denotes the dyadic interactions between the customer and the brand that result from value co-creation (Luo et al., 2019; Hollebeek et al., 2020; Keeling et al., 2021). More specifically, as engagement is considered context-dependent (Brodie et al., 2019), it has been widely applied to various marketing contexts. As a result, there are a variety of engagement context sub-forms, such as social media engagement (Hollebeek, 2014), online brand community engagement (Hanson et al., 2019), mobile app engagement (McLean, 2018), digital voice assistants (engagement) (McLean et al., 2021) and chatbot engagement (Kull, 2021). Within the literature, engagement has primarily been applied with customers as the focal subjects and the brand/firm as the focal object (Brodie et al., 2019; Dessart et al., 2017). Thus, the application of the customer-engagement concept within marketing adopts the ‘customer (focal subject) engages with the focal object (brand)’ approach (Hollebeek et al., 2011b, p. 27). CE research prior to 2012 was conceptual in nature; however, the past decade has witnessed a surge in the emergence of empirical research.

Within the marketing domain, the concept of engagement has been considered a key variable that provides greater predictive power of customer loyalty outcomes (Hollebeek et al., 2011b). The concept is considered a phenomenon that fits within relationship marketing (Brodie et al., 2011) and value co-creation paradigms (Vargo et al., 2020; Alexander et al., 2018; Keeling et al., 2021). However, researchers have acknowledged the lack of consensus with respect to the conceptualisation and definition of CBE (Brodie et al., 2011; Hollebeek et al., 2014; Alexander et al., 2018).

3.2 CBE Definitions

Ilic (2008) describes engagement as ‘a contextual process that consists of interactions with engagement objects over time and may exist at different levels’ (p. 27). Gambetti and Graffigna (2010) propose four distinct approaches of how the concept of engagement is viewed. First, the concept of engagement has been conceptualised as a type of interaction between the customer and the employee. Second, it is a relationship between the customer and the brand. Third, it is the co-creation of content between the customer and the brand. Fourth, it is a brand’s top management priority.

Bowden (2009) defines engagement as a ‘psychological process that illustrates the underlying tools in which loyalty may be maintained for repeat purchase customers of a service brand’ (p. 65). Brodie et al. (2011) define CE as a psychological state that occurs through customers’ interactive experiences with a focal object or agent within specific service relationships. This definition is widely used in the customer engagement literature. However, Van Doorn et al. (2010) contend that customers’ interactive experiences in a service relationship include more than individual transactions and consist of customers’ pre- and post-purchase experiences. Thus, Van Doorn et al. (2010) posit that CE refers to customers’ behavioural manifestation towards a brand or firm that goes beyond purchase and results from motivational drivers, such as word-of-mouth activity, blogging, recommendations, writing reviews and helping other customers. Kumar et al. (2010) support this concept; however, they contend that engagement is not complete without acknowledging the transactional aspects between the customer and the firm. Mollen and Wilson (2010) suggest that engagement is the cognitive, affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value (p. 41). This definition consists of two dimensions, namely, experiential value (emotional computability with the website) and instrumental value (e.g. relevance and utility).

By contrast, other researchers (Brodie et al., 2011; Brodie et al., 2013; Hollebeek, 2011; Hollebeek et al., 2014; Dwivedi, 2015) emphasise the significance of an engagement definition that consists of cognitive, behavioural and emotional dimensions. Hollebeek (2011a) pinpoints six fundamental principles of CBE, including ‘individual, motivational, context-dependent results from two-way interactions between subject and object, as an outcome that may exist at different intensities and as a process that can be developed over time’ (p. 792). Thus, Hollebeek (2011) defines engagement as ‘the level of a customer’s motivational, brand-related and context-dependent state of mind made up of specific levels of cognitive, emotional and behavioural activities in direct brand interactions’ (p. 790). Brodie et al. (2011) emphasise that the CE state ‘occurs within broader, dynamic processes represented by the co-creation of value’ (p. 257), which differentiates engagement from concepts such as participation and involvement. Therefore, engagement plays a central role in the process of relational exchange; the additional relational concepts (such as involvement, participation and loyalty) are antecedents (drivers) and/or outcomes (consequences) of engagement. As a result, Brodie et al. (2011, p.264) provide the following general definition of engagement:

CE is a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g. a brand) in focal service relationships. It occurs under a specific set of context-dependent conditions generating differing CE levels and exists as a dynamic, iterative process within service relationships that co-create value. CE plays a central role in a nomological network governing service relationships in which other relational concepts (e.g. involvement, loyalty) are antecedents and/or consequences in iterative CE processes. It is a multi-dimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioural dimensions.

In the context of a virtual brand community, Brodie et al. (2013) reinforce the definition by stressing that CE characterises ‘specific interactive experiences between customers and the brand and/or other members of the virtual brand community’ (p. 107). Similarly, Vivek et al. (2012) suggest that CE is the level of intensity that occurs when an individual participates and connects with the firm’s offerings and activities initiated by either the customer or the firm. In this conceptualisation, the cognitive and affective components of CE include the customers’ experiences and feelings, while the social and behavioural components catch the participation of potential and current customers. More recently, Hollebeek et al. (2014) define CBE as ‘a customer’s positively valenced brand-related cognitive, emotional and behavioural activities during focal customer/brand interactions’ (p. 154). The current thesis adopts the definition provided by Hollebeek et al. (2014). Table 3.1 presents the three engagement definitions most relevant for the conceptualisation of engagement in the current thesis. The full list of engagement definitions identified while reviewing the literature is presented in Table 3.2.

Table 3.1 Key CBE Definitions

Author	Definition of Engagement	Engagement Object
Brodie et al., 2013, p. 107	Customer engagement is a multi-dimensional concept comprising cognitive, emotional and/or behavioural dimensions. It plays a central role in the process of relational exchange, where other relational concepts are engagement antecedents and/or consequences in iterative engagement processes within the brand community.	Brand/Community members
Hollebeek et al., 2014, p. 154	Engagement is a customer's positively valenced brand-related cognitive, emotional and behavioural activities during or related to focal consumer/brand interactions.	Brand
Dessart et al., 2016, p. 409	Engagement is expressed through varying levels of affective, cognitive and behavioural manifestations that go beyond exchange situations	Brand, Community, Individuals, Advertisers, Social network

Table 3.2 CBE Definitions Summarised

Author	Definition of Engagement	Engagement Object
Calder et al., 2009, p. 322	Engagement is a '(...) second-order construct that is manifested in various first-order "experience" constructs'.	Brand
Mollen and Wilson, 2010, p. 923	Online engagement is a cognitive and affective commitment to an active relationship with the brand as personified by the website (...) designed to communicate brand value. It is characterised by the dimensions of dynamic and sustained	Brand (personified through the website)

	cognitive processing and the satisfying of instrumental value (utility and relevance) and experiential value (emotional congruence with the narrative schema encountered in computer-mediated entities)'. 	
Kumar et al., 2010, p. 297	'(...) Such active interactions of a customer with a firm, with prospects and with other customers, whether they are transactional or non-transactional in nature, can be defined as "CE"'. 	Firm
Brodie et al., 2011, p. 260	'CE is a psychological state that occurs by virtue of interactive- creative customer experiences with a focal agent/object (e.g. a brand) in focal service relationships. It occurs under a specific set of context-dependent conditions generating differing CE levels and exists as a dynamic, iterative process within service relationships that co-create value. (...) It is a multi-dimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioural dimensions'. 	Brand
Hollebeek,2011a, p. 790	CBE is 'the level of an individual customer's motivational, brand-related and context-dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activities in direct brand interactions'. 	Brand
Hollebeek, 2011b, p. 565	CBE is defined as the level of a customer's cognitive, emotional and behavioural investment in specific brand interactions. 	Brand

Jahn and Kunz, 2012, p. 349	'(...) we define fan-page engagement as an interactive and integrative participation in the fan-page community and would differentiate this from the sole usage intensity of a member'.	Fan page
Vivek et al., 2012, p. 133	CE is the intensity of an individual's participation in and connection with an organisation's offerings or organisational activities, which either the customer or the organisation initiates. The individuals may be current or potential customers. CE may be manifested cognitively, affectively, behaviourally or socially'.	Products/Activities
Hollebeek et al., 2014, p. 154	Engagement is: '(...) a consumer's positively valenced brand-related cognitive, emotional and behavioural activities during or related to focal consumer/brand interactions.	Brand
Jaakkola and Alexander, 2014, p. 2	CE behaviour is defined as 'customers (who) make voluntary resource contributions that have a brand or firm focus but go beyond what is fundamental to transactions; it occurs in interactions between the focal object and/or other actors and results from motivational drivers'	Brand/Firm
Dessart et al., 2016, p. 409	Consumer engagement is 'the state that reflects consumers' individual dispositions towards engagement foci, which are context specific. Engagement is expressed through varying levels of affective, cognitive and behavioural manifestations that go beyond exchange situations.	Brand, community, individuals, advertisers, social network
Alexander et al., 2018 p. 5	an actor's voluntary resource contributions that focus on the engagement object, go beyond what is elementary to the exchange,	

	and occur in interactions with a focal object and/or other actors.’	
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(Adapted from Venkatesan, 2017; Maslowska et al., 2016)

3.3 Dimensions of CBE

Early engagement studies have examined the concept using a single dimension by focusing on either the emotional dimension (Roberts and Davenport, 2002), its cognitive elements (Guthrie and Cox, 2001) and/or its behavioural aspects (Van Doorn et al., 2010). However, several researchers have argued that the conceptualisation of CE needs to extend beyond pure action and adopt both the psychological and behavioural dimensions (Patterson et al., 2006; Hollebeek, 2011a; Vivek, 2012; Brodie et al., 2011). Brodie et al. (2011) argue that engagement should be approached using the multi-dimensional concept. To support this, Hollebeek (2011a) states that CBE occurs when the customer’s mind is shaped by levels of emotional, cognitive and behavioural activities with respect to brand interactions.

From the conceptualisation of engagement by Hollebeek et al. (2014), the researchers were able to obtain and empirically test three CBE dimensions, namely, cognitive processing (cognitive CBE dimension), affection (emotional CBE dimension) and activation (behavioural CBE dimension). Cognitive processing is defined as ‘the customers’ level of brand-related thoughts that the customers process when they interact with a brand’ (p. 154). Affection is defined as the ‘customers’ level of positive brand-related affect during customers’ interactions with a brand’ (p. 154). Activation is defined as ‘the customers’ level of effort, energy and time spent on a brand in a particular customer/brand interaction’ (p. 154). As a result, CBE portrays itself as a multi-dimensional concept (Vivek et al., 2014). In line with the multi-dimensional approach, Greve (2014) describes CBE as ‘the customer’s psychological process that leads to the formation of loyalty’, ‘a psychological state made up of a degree of dedication, vigour, absorption and interaction’ and ‘a customer’s behavioural manifestation towards a firm or brand that goes beyond purchase, resulting from motivational drivers’.

Dwivedi (2015) presents a multi-dimensional definition of CBE. This definition was derived from the organisational psychology literature and describes CBE as ‘customers’ positive, fulfilling, brand-use-related state of mind that consists of vigour, dedication and absorption’

(p. 100). Within this context, vigour refers to the high levels of mental resilience and energy of the customer when interacting with a brand, as well as the customer's ability and willingness to put effort into such interactions (p. 108). Dedication describes 'the customer's sense of belonging. In addition, it refers to the sense of enthusiasm, significance, inspiration, challenge and pride felt with respect to the customer's role' (p. 108). Meanwhile, absorption is described as 'the feeling of being fully concentrated and happily submerged in brand interactions' (p. 108). The customer feels as if 'time goes by quickly when interacting with the service, the brand or the other customers. In some cases, customers might find it challenging to detach themselves from the brand' (p. 108). These dimensions correspond directly to the behavioural, emotional and cognitive aspects of CBE identified by Hollebeek (2011a, 2011b), Brodie et al. (2011) and Hollebeek et al. (2014).

Through the adoption of the multi-dimensional approach of engagement, Dessart et al. (2016) validate

the three fundamental aspects of CBE (cognitive, affective and behavioural) and divided them into seven sub-dimensions, namely, enjoyment, enthusiasm, absorption, attention, learning, endorsing and sharing. Recent studies have adopted and validated the existence of the three dimensions of CE (Hollebeek et al., 2021; Carvahlo et al., 2018; Ahn and Back, 2018; Wang, 2020; Kumar, 2021). In line with recent CBE research, the current study adopts the multi-dimensional approach proposed by Brodie et al. (2013), Hollebeek et al. (2014) and Dessart et al. 2016 (2016), which characterises the cognitive processing, behavioural and emotional dimensions.

3.4. Firm Perspective of CBE

Engagement can be approached from two useful perspectives: the firm's or the customers' perspective (Malthouse et al., 2019). This research focuses on the customers' perspective. A common theme identified from previous CE research is that the concept of engagement has been widely approached from the firm's perspective as opposed to the customers' perspective (Kuns et al., 2020). The firm-centric perspective of CE focuses primarily on customers' positive and negative expressions related to the brand, as well as the benefits obtained by the brand from CE initiatives (Vivek et al., 2014). In simple terms, the primary focus of CE has consistently been on what brands do in their domain to activate firm-beneficial engagement from customers (Kuns et al., 2020).

Key research that has examined the effects of brand community engagement (Kumar and Kumar, 2020; Brodie et al., 2013; Dessart and Veloutsuo, 2021) include variables such as loyalty, community recommendation and brand-related purchase behaviour as the outcome variables of engagement but ignore the effects of engagement on individual customers (Malthouse et al., 2019). In addition, there is a lack of customer focus with regards to the behavioural conceptualisations of CE. For example, Van Doorn et al. (2017) discuss the outcomes of CE for brands but fail to highlight any direct and clear benefits for customers aside from the financial benefits obtained by taking part in loyalty or reward-based programmes. A conceptual model developed by Verhoef and Bijmolt (2019) mainly focuses on the effect of CE on metrics, such as customer lifetime value, customer retention and new product performance, all of which add to firm value.

Brands can benefit on three different levels when brand customers distribute, share and discuss their experiences, write positive reviews and feel enthusiastic or delightful interacting with the brand via social media (Wirtz et al., 2013; Kuns et al., 2020). The first is at the firm level, whereby brands obtain vital market insights for managing their status, complaints and data for enhancing their processes (Sigala and Gretsel, 2017). The second is at the market level, whereby customers can become powerful brand advocates and online marketers for the brand; thus, brands can establish long-term relationships with these customers (Onofrei et al., 2020; Malthouse et al., 2019; Sigala, 2016). The third is at a customer level, whereby customers enhance their brand usage intent, self-brand connection (Hollebeek et al., 2014), level of trust towards the brand, successive customer brand relations and brand loyalty (Hollebeek and Strivastata, 2022) and personalisation and enrichment of their brand/firm encounters (Alonso-Dos-Santos, 2018).

Brands should essentially shift their mindset of CE from a transactional perspective to a wider understanding and management of their customers and what they value (Malthouse et al., 2019). Kuns et al. (2017) posit that brands need to address the following five critical questions to design an optimal CE strategy and efficiently integrate their customers into the brand's value chain as value co-creators: (1) Why does the brand need to activate CE? (2) What are the potential engagement strategies? (3) Who should be empowered to take part in co-creation (e.g. customers, online brand communities and employees)? (4) Which channel or platform should be used to engage customers (Where)? and (5) At what points

(when) of the customer experience should the customers become engaged (e.g., prior to purchase, during consumption or post-consumption)?

3.5 Customer Perspective of CBE

Numerous brands activate engagement initiatives with the belief that it will yield positive financial outcomes. However, this is largely dependent on the brand's ability to cultivate these interactions efficiently with its customers (Dwivedi, 2015; Malthouse et al., 2019). For brands to achieve CE, it is essential that they understand their customers' perspective on how, why, where and when they would like to engage with the brand (Kuns et al., 2020). These orientations and motivations vary depending on each customer. Thus, adopting a one-size-fits-all approach would less likely generate the desired results (Sigala, 2016; Malthouse et al., 2019). For instance, the literature illustrates that customers are more inspired to communicate information on the basis of distinct goals, such as a desire to help others or a sense of pleasure from speaking to other people about products and gaining social capital (Massarol et al., 2007). Moliner et al. (2018) state that customers may also be motivated to engage with brands to increase self-esteem, achieve social status and self-enhancement, increase their visibility and justify their decisions. Kuns et al. (2020) assert that understanding the customers' motivations and designing an engagement strategy targeted at customers with distinct motivations and needs will most likely improve their responses to brands' engagement initiatives.

In line with Brodie et al. (2011), Roy et al. (2018) see engagement as having its foundation in one or more experiences reflecting customers' values or goals and that engagement leads to a variety of consequences like product usage and purchase. Thus, the way to yield high levels of engagement is to understand the ideal value and goal-based experiences for customers (Brodie et al., 2019; Kull et al., 2021). Such experiences illustrate the customer's interaction with the product or service over a period as a way of achieving life goals or expressing personal values (Brodie et al., 2019). Issac et al. (2015) support this idea by defining engagement as 'a multilevel, multi-dimensional construct reflected by the thoughts and feelings customers have about one or more rich experiences involved in reaching a personal life goal or value'. From this definition, it is evident that customers' experiences are at the intersection of their personal values and goals, as well as their connection to the brand in a way that contributes value to the brand (Issac et al., 2015). Therefore, brands need to connect with their customers' lives for them to foster high levels of engagement, which, in turn, will prompt brand re-usage, brand

loyalty and word-of-mouth (Kuns et al., 2020; Hollebeek and Strivastaya, 2022; Onofrei et al., 2022).

3.6 Effect of Context on CBE

A variety of factors play a role in influencing customers' tendency to engage, resulting in high levels of engagement (Hollebeek et al., 2021). Van Doorn et al. (2017) propose several factors that have the potential to activate and hinder engagement, which include context-based factors. According to Hollebeek et al. (2014), the specific level of interactivity related to engagement levels depends on specific contextual conditions. In addition, engagement levels could vary based on factors such as industry and product or service characteristics (Verhoef and Bijmolt, 2019). Onofrei et al., (2022) highlight the importance of considering the contextual character of engagement. In line with this, Brodie et al. (2019) posit that CE is subject to a specific context and/or a specific stakeholder expression.

With respect to context-based factors, the concept of engagement has been widely studied in online settings, such as service networks, websites, social media, virtual brand communities, hospitality and tourism (Alexander et al., 2018; Hollebeek et al., 2014; Van Doorn et al., 2017; Lee et al., 2014). The concept has also been studied more recently in the context of technology, big data (Kuns et al., 2017), mobile banking (Sahoo and Pillai, 20117), mobile apps (McLean, 2018), augmented reality applications (McLean and Wilson, 2019), digital assistants (McLean and Frimpong, 2019) and AI (Kull et al., 2021). Despite the interactive and relationship-centred characteristics of CBE, a contextual expansion of the engagement concept is significantly needed (Kuns et al., 2017; Brodie et al., 2019). The adoption of technologies and the emergence of AI have made it easier for brands to interact with customers, as well as for customers to interact with one another (Brodie et al., 2019; Huang and Rust, 2021; Kull et al., 2021).

Kumar and Kumar (2020) examine the distinct capabilities of online communities as a platform of CBE. Their findings suggest that factors like interactivity, persistence, communication speed, enhanced reach and flexibility could be used by firms to engage customers in collaborative product innovation through brand community-based tools. Roy et al. (2018) state that as more customers become proficient with using technology, the number of CE behaviour options will increase immensely due to technological evolution or social changes. Such social changes include the customers' increasing need to feel connected with their preferred brands and the desire to develop a sense of belonging towards a brand community (Hanson et al.,

2019; Van Doorn et al., 2017). Thus, firms have significantly leveraged the use of online brand communities and social media platforms, such as Facebook and Twitter, for fostering CBE (Hollebeek et al., 2014; Baldus et al., 2015). Online brand communities enable the strengthening of CBE and customer relationships (Onofrei et al., 2022). Members of an online brand community with a common interest could develop a bond, making the online brand community a powerful platform of engagement (Kumar and Kumar, 2020).

Hollebeek et al. (2014) state that engagement is a ‘context-dependent state of mind’. Contextual factors influence customers’ inclination to engage in service relationships and engagement behaviours. Accordingly, Benham et al. (2021) assert that engaging customers in high-involvement, interaction-based contexts is simpler compared with low-involvement, interaction-based contexts. In a case where services are reduced and products are commoditised, with increased availability and low switching costs, customers may not see much value in engaging in a relationship with their brand (Roy et al., 2018). By contrast, for high-calibre professional services with limited availability and high switching cost, customers will attach more value to engaging in a relationship with the service provider (Rather and Hollebeek, 2021).

Considering that the concept of CBE is context-dependent, there is an imperative need for research that investigates engagement in the evolved and current service contexts whereby automated technologies driven by AI facilitate better CBE.

3.7 Antecedents and Consequences of CBE

Several marketing scholars have investigated the antecedents and outcomes of CE (Van Doorn et al., 2010; Mollen and Wilson, 2010; Vivek et al., 2012; Brodie et al., 2013; Hollebeek et al., 2014; Divedi, 2015; France et al., 2016; Leckie et al., 2016; Pansari and Kumar, 2017; McLean, 2018; McLean and Wilson, 2019; Rahman et al., 2022). However, the majority of the studies prior to 2013 were conceptual and based on offline contexts (e.g. Brodie et al., 2011; Hollebeek, 2011; Vivek et al., 2012). In addition, earlier research has primarily focused on the impact of CE on brand relational outcomes, such as loyalty, commitment, trust, satisfaction (Hollebeek, 2011; Bowden, 2009; Brodie et al., 2011) and brand attention and recall (Sprrott et al., 2009). Moreover, the conceptual antecedents of engagement prior to 2013 consisted of numerous individual variables, such as consumption goals or identity (Van Doorn et al., 2010) or involvement and interactivity (Sprrott et al., 2009; Hollebeek, 2011).

Since 2013, the lack of empirical research on the drivers and outcomes of CE has gained significant scholarly attention. For instance, Brodie et al. (2013) propose the antecedents and outcomes of online brand community engagement based on qualitative data. The antecedent proposed was the ‘need to reduce information search and perceived risk’, while the outcomes proposed included trust, commitment, satisfaction, connection and emotional bond. With respect to social media engagement, Hollebeek et al. (2014) propose that involvement is an antecedent, while self-brand connection and usage intent are established as outcomes. Subsequent studies have advanced this notion by obtaining empirical evidence that suggests social media engagement leads to word-of-mouth and brand love (Marbach et al., 2016; Yang et al., 2016). Martine-Lopes et al. (2017) illustrate that ‘the experience of’ and ‘identification with’ an online brand community stands out above other antecedents, such as ‘trust’, because of the effect they have on engagement. In the social media context, Dessart (2017) empirically tests the effects of antecedents, such as community engagement, online interaction propensity (OIP), attitude towards community participation and product involvement, on brand engagement. Interestingly, community engagement is the strongest predictor of brand engagement, while individual dispositions, such as OIP and attitude towards community participation, have no effect on brand engagement. Product involvement is the only individual disposition to have an effect on brand engagement.

McLean (2018) examines the effect of perceived ease of use, perceived usefulness, convenience and enjoyment on influencing CE with a mobile commerce app. The findings indicate that utilitarian variables, including perceived ease of use, perceived usefulness and convenience, significantly influence engagement with a retailer’s mobile commerce app following the continued use of the app, while enjoyment is less significant. Varshney (2021) examines the effect of atmospherics and involvement on CE in fashion retail settings. The findings indicate that atmospherics and involvement significantly affect customers’ engagement with the retailer. Hwang et al. (2021) examine the antecedents and consequences of memorable experiences in relation to human baristas vs. robot baristas. The results indicate that two types of perceived values, namely, utilitarian and hedonic values, help in the formation of a memorable brand experience. In addition, a memorable brand experience was found to have a positive influence on CBE brand preference. Babdullah et al. (2021) examine the acceptance of AI practices and develop a conceptual model that considers the impact of AI enablers and AI readiness on the acceptance of AI practices, which, in turn, influences CE.

3.8 Platforms of CBE

Despite the widespread benefits of engagement, activating CE remains challenging. In addition, there is a dearth of research examining the specific technology-enabled platforms where interactions between brands and customers can occur. Engagement platforms are described as ‘physical and virtual platforms designed to provide structural support for the exchange and integration of resources’ (Breidbach et al., 2014, p. 594). Some conceptual studies have investigated the potential of engagement platforms to activate engagement (Hollebeek, 2019; Wang, 2020), for instance, by enhancing overall CBE through social media online brand communities (Onofrei et al., 2022). Moreover, engagement platforms provide essential ‘touchpoints’ that customers and brand representatives may use to sustain their continuous interactions over and above purchases (Wang, 2020; Kull et al., 2021).

Brands can integrate multiple physical and virtual interaction touchpoints to ‘convert relationships with customers from dialogue to triadialogue’ through engagement platforms, allowing customers to interact with both the brand and other customers (Brodie et al., 2019), thereby going further than a customer-brand dyad (Alexander et al., 2018; Jaakkola and Alexander, 2014). The emergence and swift adoption of automated technologies allow customers to begin direct interactions with firms and enter conversations with brands’ representatives and other stakeholders, which, in turn, foster CBE in ways that were previously not possible (Van Doorn et al., 2017; Huang and Rust, 2021).

The synthesis of physical and virtual interaction touchpoints is in line with the co-creation literature, whereby actors (e.g. firms, employees, customers) within a service ecosystem are characterised by their ability to co-create value and integrate resources (Toscher, 2021; Vargo and Lusch, 2017; Vargo et al., 2020). Accordingly, the current thesis considers AI-driven automated technologies (chatbots) as platforms of engagement. This research builds on the work of Huang and Rust (2021), who suggest that automated service interactions drive value co-creation and enhance CBE.

3.9 Conclusion

The literature highlights that CBE is context-dependent (Rather and Hollebeek, 202; Benham et al., 2021), demonstrating that enhancing CBE in high-involvement, interaction-based contexts is simpler compared with low-involvement, interaction-based contexts. Previous research has studied the antecedents and consequences of CBE with respect to social media,

brand communities, mobile apps, smart technologies, augmented-reality apps and digital assistants (e.g. Hollebeek et al., 2014; Divedi, 2015; France et al., 2016; Leckie et al., 2016; Pansari and Kumar, 2017; McLean, 2018; McLean and Wilson, 2019; Rahman et al., 2022). However, the antecedents and consequences of CBE fostered by brands' chatbots in value-based service networks are yet to be examined. The current research addresses this gap by examining the antecedents and consequences of CBE in settings where chatbots facilitate the interaction between the customer and the brand or service provider. Huang and Rust (2021) posit that novel engagement platforms have tremendous potential to enhance CBE (Huang and Rust, 2021; Van Doorn et al., 2017). Therefore, it is imperative to examine the variables that influence CBE in these settings.

Chapter Four

Interaction

4.0 Introduction

Interaction is an integral component of value co-creation and a facilitator of CBE (Singh et al., 2021; Rather et al., 2021; Vargo et al., 2020). Therefore, it is imperative for this study to discuss the concept of interaction. The chapter begins by presenting an overview of the different forms of interaction as discussed within the domain of social sciences. Thereafter, interaction is discussed in a service context. Three types of interaction are reviewed: customer-to-employee interaction, customer-to-customer interaction and customer-mediated interaction. The current thesis focuses on technology-mediated interaction.

4.1 Interaction Conceptualisation

The concept of interaction has been used extensively within the domain of social sciences, resulting in various forms of interaction (Pizzi et al., 2021). This section provides insight into each form of interaction. First, implicit interaction is defined as a mutual acknowledgment between two individuals, such as the exchange of a nod, smile or greeting (Choi et al., 2021). During implicit interactions, each individual intentionally monitors the other to ensure that nothing out of the ordinary occurs (Lee et al., 2018).

According to Becker et al. (2020), focused interaction refers to an interaction whereby two individuals share a common focus of attention and engage in conversation with each other. With this type of interaction, individuals are required to acknowledge each other as unique. For example, when an individual engages in a conversation with their service provider regarding a billing query, focused interaction occurs between the customer and the agent.

Two forms of group-based interaction exist, namely, active social interactions and passive social interactions. Surla et al. (2018) define active social interactions as social activities within group settings, for example, active participation in an online brand community. Interactions are explained by their ability to connect individuals with a wider range of communities (Choi et al., 2021). Muk et al. (2019) state that such interactions tend to reflect an informational element of influence, especially for new activities.

Conversely, passive social interactions consist of actions within a smaller and private circle (Kim et al., 2017). For example, a conversation about a past encounter with a brand with close friends or neighbours. Becker et al. (2020) state that interactions within such groups increase individuals' attachment to the group, leading to an individual's fear of being excluded from the group.

4.2 Interaction and the Service Encounter Perspective

Interaction among actors is central to value co-creation (Sarasuvo et al., 2022). The process of value co-creation encompasses interactions between customers and their brands or service providers. This dyadic interaction between service providers and customers is commonly referred to as the service encounter (Holmqvist et al., 2020). Colier et al. (2018) assert that service encounters are a combination of interactions between customers and brands that lead to value creation.

Interaction and service encounters have evolved over the last 20 years. Trip and Drea (2002) define the service encounter concept as a face-to-face interaction between customers and service employees during service consumption. Wu (2007) extends this definition and states that service encounters are characterised by interactions that are discrete, separate and distinct behaviours encompassing interpersonal exchange between customers and service providers. Soderlund and Rosengren (2010) state that service encounters are face-to-face interactions between a buyer and a seller in a service setting. Lai et al. (2014) extend this statement and suggest that it is the moment of interaction when the frontline employee delivers a service to the customer, yielding positive customer feelings and enhancing purchase intention. More recently, Colier et al. (2018) suggest that the service encounter should go beyond meeting the customers' expectations and define it as memorable interactions between the customer and the brand that create value for the customer. However, the service encounter has evolved with the emergence of AI. In some service encounters, traditional human-to-human service encounters have been replaced by human-to-machine (AI) and machine-to-machine interactions (Collier et al., 2020). Collier et al. (2018) state that CE stems from the customers' interaction with the brand, so it is essential for brands and service providers to facilitate service encounters that are memorable. These memorable service encounters can be human or machine-driven.

In addition, such value co-creating interactions present brands with the opportunity to obtain beneficial outcomes, such as word-of-mouth and customer loyalty (Merz et al., 2019).

Considering the evolving service encounter, three modes of interaction are discussed in the subsequent sections, namely, customer-to-employee interaction, customer-to-customer and mediated interaction.

4.2.1 Customer-Employee Interaction

The interaction between the customer and the employee is at the core of the value-creation process and is dependent on the level of respective involvement during the service encounter (Ramaswamy and Ozcan, 2018; Collier et al., 2018; Vargo et al., 2020; Holmqvist et al., 2021). Customer-to-employee interactions can range from being short and superficial to being longer and more significant. For example, the interaction between a customer and a service employee in a fast-food outlet is short and superficial. On the other hand, the interaction between a customer and a sales advisor at Vodafone might be longer and more detailed. Robinson et al. (2020) assert that customers may have a series of singular service interactions, whereby the customer moves along a customer journey in a specific service encounter. For example, in hospitality settings, the customer checks in with the frontline employee (conciierge), then gets escorted to the room by the porter with the luggage and is served dinner at the hotel restaurant by the waiter. Collier et al. (2018) state that service providers in service contexts that present a high probability for subsequent singular service interactions should adopt an emotional and situational approach to enhance value creation.

The customers' perceptions of value during such interactions play a pivotal role in fostering CBE (Brodie et al., 2019; Hollebeek et al., 2019). In light of this, researchers consider customer-employee interactions to be a critical dimension of value co-creation and have made a call for integrating dimensions of interaction together with service quality items associated with responsiveness, empathy and assurance (Wunderlich and Hogueve, 2019; Robinson et al., 2020). More specifically, customer-employee interactions involve the customers' perceptions of the dyadic interactions that occur during service delivery consisting of attitudes, behaviours and skills of employees (Soderlend and Berg, 2019).

4.2.2 Customer-to-Customer Interaction

During service encounters, customers can be in the presence of other customers and begin to interact with one another (Milan et al., 2016). Customer-to-customer interactions are a secondary factor with respect to the design and delivery of service experiences (Ekpo et al.,

2015). Such interactions are thought to be impossible to manage (Johnson et al., 2019). However, an emerging stream of research advocates that customer-to-customer interactions can positively influence satisfaction and word-of-mouth (Heinonen et al., 2018; Luo et al., 2019; Nguyen and Menezes, 2021). Johnson et al. (2019) posit that the effect of customer-to-customer interactions could be more significant when they develop into relationships.

Rihova et al. (2019) state that service encounter research has mostly examined three key components, namely, the roles of the customer and employee, service design and servicescape. However, the role of additional customers should also be considered. For example, customers may begin interacting when a customer is waiting in a queue at a fast-food restaurant or bank. Such interactions are catalysts for WOM and product recommendations (Nicholls, 2020).

Heinonen et al. (2018) propose the term ‘extended service encounter’ for customer-to-customer interactions while referring to the duration of the interaction. They reveal how such service experiences in conjunction with group interactions (customer-to-customer interactions) may yield extraordinary hedonic experiences. Luo et al. (2019) identify duration as a key dimension of the service encounter and assert that the customer experience no longer feels solely transactional but relational once customers interact with each other while waiting during the customer journey.

4.2.3 Technology-Mediated Interaction

Mediated interaction is facilitated through a platform or technology between the customer and the service provider or the customer with another customer or customers (Hall, 2018). This type of interaction has evolved and has been identified as computer-mediated interaction (Jones, 2012; Smock et al., 2011). Currently, this type of interaction is referred to as machine-mediated interaction or human-machine interaction (Huang and Rust, 2020; Van Doorn et al., 2017; Caic et al., 2019; Hollebeek et al., 2020). However, the study of mediated interaction remains challenging at present with the introduction and continuous modification of novel technologies and their capabilities (Caic et al., 2019). With the emergence of chatbots and virtual assistants, the service encounter has been reshaped, and experiences vary according to the chatbots’ dimensions of synchrony, responsiveness and social presence (Paschen et al., 2020; Payne et al., 2021; Huang and Rust, 2021). Such dimensions facilitate customer-focused interactions with these technologies, which, in turn, influence CBE (Roy et al., 2020; Lei et al., 2020).

Considering the evolution of the service encounter, particularly with respect to technology-mediated interaction, value-based service networks now encompass collaborations between actors that are human and non-human (Vargo et al., 2020). Current service encounters encompass the extensive use of technology and, in some cases, have become AI-dominant (chatbots and virtual assistants). Huang and Rust (2020) state that service encounters range from simple dyadic interactions to complicated interactions involving the collaboration of numerous actors that can either be human or non-human through several interfaces, as well as having the ability to shift from human to non-human interaction and vice versa. In essence, these encounters consist of human-to-human, human-to-machine and machine-to-machine interactions. The current thesis focuses on human-to-machine interactions (i.e. technology-mediated interaction).

4.3 Interaction Research Themes

The interaction literature in relation to the service encounter predominantly focuses on four themes: the interaction environment, the service employees, the consequences of interactions (Paschen et al., 2020; Zhang et al., 2018; Cheung et al., 2018; Luo et al., 2019; Rather, 2019; Heinonen et al., 2018), and finally, the key variables that have emerged from the literature, particularly when focusing on technology-mediated interaction. The subsequent sections present a review of these four themes.

4.3.1 Interaction Environment

In line with the S-D logic, services can successfully convey the service providers' value propositions to customers (Huang and Rust, 2021; Osborne, 2018; Wibowo et al., 2021). As a result, several empirical studies have examined the influence of the servicescape on customers' satisfaction, emotions, quality of life and return intention (Meng and Choi, 2017; Carneiro et al., 2019, Line et al., 2018; Line and Hanks, 2020).

Carneiro et al. (2019) test a comprehensive model focused on the relationship between the social environment in the service setting (the socio-emotions displayed by the employee, along with the customer climate), the physical environment (ambient and design factors) and resulting customer emotion and service outcomes. Their findings reveal that both social and physical environments positively influence customer emotion and satisfaction, which, in turn, affect behavioural intentions. Thus, both social and physical environments

lead to favourable interactional experiences. Accordingly, Collier et al. (2018) state that the physical retail environments exhibit more influence on customer emotion and satisfaction than the online retail environment.

Ahn and Back (2018) conduct a study to understand the relationships between the service environment, service provider mood and customer-firm interaction. Specifically, the service employee's mood was evaluated as a potential moderator of the relationship between the service environment and customer-firm interaction. Meng and Choi (2017) demonstrate that service provider evaluations of the physical retail environment improve in the presence of an appropriate ambient scent. In addition, the behavioural responses are also enhanced; providers are perceived to be more courteous and customers more friendly. Interestingly, the service employee mood moderates the relationship between the service environment and customer perceptions of service employee behaviour.

Li (2021) explores how triggers in the service environment of a customer-employee interaction influence customer behavioural response to employees' negative and positive affect. Their findings reveal that customer responses are more favourable for both positive and negative interactional experiences when customers have access to information on cause uncontrollability (i.e. notice triggers in the interaction environment). In essence, if a customer experiences a negative interaction with a service employee and the customer has information as to why the interaction was negative, the customer will respond favourably towards the employee. Feng et al. (2017) also reveal that these favourable responses stem from feelings of sympathy for negative experiences. Accordingly, Henkel et al. (2017) investigate and observe how another customer's incivility (rude or unsociable behaviour) towards a frontline employee can influence other present customers' own service interaction. Their results reveal that an incivility incident leads to customers shifting their attention from their interaction to the negative interaction they are witnessing. According to Singh et al. (2018), this shifts customers to demonstrate feelings of warmth to the service employee in subsequent interactions.

4.3.2 Service-Employee Attributes and Expectations

Within the service setting, it is obligatory for service employees to meet the operational demand to enact value-creating behaviours (serving customers) (Vargo and Lusch, 2016a; Hollebeek et al., 2019) and fulfil the socio-emotional demands inherent in these behaviours (i.e. modifying

their behaviours to act in a way that is consistent with the position of their employer) (Ahn and Back, 2017). Kaminakis et al. (2019) examine the impact of service employees' display of positive emotions and the genuineness of their emotional labour display on customers' emotional states and, subsequently, on customers' assessments of the service interaction and their relationship with the service firm. Their findings indicate that the genuineness of employees' emotional labour display directly affects customers' emotional states. Contrary to expectations, the extent of employee smiling did not influence the overall perceptions of the interaction. Henkel et al. (2017) investigate the service interaction behaviours that elicit a sense of comfort for the customer during the service encounter. They find two key groups of interaction containing specific behaviours that create a sense of overall comfort for the customer, namely, service manners and need identification. Service manner is associated with the employee's positive attitude and warm temperament. Need identification refers to the items related to asking and anticipating customer preferences, understanding the needs of the customer and being knowledgeable.

Chiew et al. (2018) empirically examine the extent to which service employee's humour usage can influence customers' service encounter evaluations. Their findings from 252 retail service customers reveal that an employee's sense of humour increases humour perceptions and enables positive service interaction evaluations. In particular, service employees' other-directed humour, rather than self-directed humour, leads to more enjoyable interactions for the customers. Paparoidamis et al. (2019) examine how service employees' cultural intelligence impacts the customer loyalty outcomes of service quality perceptions. They propose that the three components of cultural intelligence, namely, cognitive, emotional and physical, have different moderating effects on the perceived service quality-customer loyalty link and that these effects vary across two national markets. The findings also indicate that cognitive cultural intelligence negatively moderates the impact of perceived service quality on customer loyalty in an emerging-market context, while emotional/motivational cultural intelligence has a positive moderating effect in a mature market setting. Accordingly, Altinay et al. (2021) indicate that service employees who demonstrate an accurate understanding of cultural diversity and culturally appropriate reactions facilitate value-creating interactions.

4.3.3 Customer-to-Customer Interaction Consequences

The outcomes/consequences of customer-brand interactions have been extensively investigated. Several researchers have examined the outcomes of customer-employee and customer-to-customer interactions. Heinonen et al. (2018) assert that interaction outcomes have multiple implications for customers. In addition, interactions differ in intensity, reciprocity and frequency, so their outcomes also vary. Thus, positive interactions do not entirely lead to positive outcomes and vice versa. In a study focusing on travel agents, Hollebeek and Rather (2019) state that service innovation is a key driver of the interactional outcomes from customer-employee interactions. Their findings present that customer satisfaction, behavioural loyalty, advocacy and value co-creation are outcomes of service innovation in these settings.

Luo et al. (2019) state that customer-to-customer interaction arouses feelings and emotions. Similarly, Heinonenn et al. (2018) state that friendly encounters or conversations with other customers generate pleasant feelings or personal enjoyment. However, these interactions may also lead to feelings of dissatisfaction (Bruhn et al., 2014) or anxiety (Johnson and Grier, 2013). Brodie et al. (2013) indicate that customer-to-customer interactions impact customers' social status and affinity through the display of expertise and knowledge in a product-related community. Accordingly, Luo et al. (2019) state that such interactions enable customers to achieve a shared experience and gain a sense of connection with others. Conversely, Hildebrand et al. (2017) demonstrate that criticism yields decreased satisfaction and subdued customer creativity when customers attain feedback from other online community members regarding self-designed products. These observations highlight that the outcomes of customer-to-customer interaction can also be negative.

Cheung et al. (2018) show that the knowledge exchange between customers and employees/or customers during interactions facilitates purchase decision making and, to a larger extent, purchasing behaviour. According to Zhang et al. (2018), word-of-mouth is a reliable source of information provided by customers. Information from other customers have a stabilising effect on customer expectations. Thus, customers experience less dissatisfaction and risk when they are conscious of their expectations. Bruhn et al. (2014) find that customer-employee interactions affect customer resources as customers learn and obtain new skills and knowledge and find solutions to their problems. Paschen et al. (2020) state that customers gain a sense of power as they can reward or punish brands for their quality of offering through word-of-mouth.

4.3.4 Technology-Mediated Interaction Variables

Three key variables emerge when reviewing the technology-mediated literature. Previous studies have found these variables to have an integral role, particularly in settings where customers interact with different forms of brand-/firm-related technologies. These variables include social presence, interactivity and personalisation. The subsequent sections discuss these variables.

4.3.4.1 Social Presence

According to Lim et al. (2015), perceived social presence in the field of mediated interaction refers to the extent to which users perceive another human to be present in the mediated interface. Walter et al. (2015) conjecture that the perceived warmth of an interactional interface is called social presence. Song and Hollenbeck (2015) define social presence as the extent to which an interface allows one to develop a personal connection with others that resemble face-to-face interaction. He et al. (2012) emphasise the psychological nature of social presence as an individual experience of connectedness and closeness to others and, thus, defines the concept as a 'sense of being with another' (p. 456). The difference in the definitions becomes visible when the associated measurements are taken into consideration. Short et al. (1976) refer to the aspect of perceived warmth with respect to an interactional interface. Meanwhile, Bicocca et al. (2003) investigate the degree of interactivity and understanding of the actors involved in the interaction. Although the research is related to customers' interaction with automated technology, specifically chatbots, customers often believe that they are interacting with a human when in fact, they are interacting with a chatbot.

4.3.4.2 Interactivity

According to McMillan and Hwang (2002), the concept of interactivity is defined as the customers' perceptions of how well an interface interacts with them in relation to two-way communication, the level of user control and timely feedback. Previous research has highlighted that interactivity may be categorised into three distinct facets, namely, features, processes and perceptions (Song and Zinkhan, 2008; Mollen and Wilson, 2010; Florenthal and Shoham, 2010). Feature-based interactivity involves the presence of varied interface features, such as chat rooms, email links and instant messaging (McMillan, 2005). Interfaces that possess such features offer users greater levels of interactivity (Silica et al., 2005; Jensen et al., 2014). In addition, message type, response time and the number of clicks are acknowledged as features and are thus considered to make up feature interactivity. Conversely, process-based

interactivity focuses on the customer's actions while interacting with the interface, as opposed to the specific function of the interface (Kim et al., 2012). McMillan (2005) highlights that the use of functions in some interfaces, including personalised home pages, chat rooms and search engines, are examples of process-based interactivity. However, perception-based interactivity adopts a different approach and is defined as the extent to which customers perceive interactivity when they use an interface (Mollen and Wilson, 2010). Zhao and Lu (2012) suggest that customers' perceptions of interactive features in an interactional interface are efficient in measuring the level of interactivity. Accordingly, Wu (2005) reinforces that a perception-based approach is better than a feature-based model in assessing the influence of interactivity on users' attitudes towards interactional interfaces. Therefore, the current research adopts a perception-based perspective to gain a better understanding of how customers perceive the interactivity of a chatbot during a service encounter.

4.3.4.3 Personalisation

Ho and Bodoff (2014) define personalisation as an automated process that involves the identification of customers, the collection of customer behavioural records, the analysis of customer preferences and the tailoring of content to suit each customer. Tam and Ho (2005) suggest that personalised interfaces make use of a personalisation agent to provide the relevant content in the correct format to the right customer at the right time. Ho et al. (2011) define a personalisation agent as a suite of software used to generate personalised content for the customer.

The effectiveness of personalisation may not only rely on the technology that customers interact with during the service encounter but also on the personalisation agent and the strategy implemented by the brand or service provider. Li (2016) suggests that understanding the value-creating potential of personalisation is a key research issue. The current thesis focuses on customers' use of brands' automated technology during service encounters. Automated technologies previously implied a degree of standardisation in terms of service delivery and processes (Kurzweil, 2005). However, automated technologies in today's world offer a growing opportunity for service personalisation (Huang and Rust 2021).

4.4 Conclusion

The concept of interaction in relation to the service encounter is a mature area. However, the literature review revealed opportunities to address overlooked topics. The literature addresses

interactions between actors (humans and non-humans) within value-based service networks, along with the outcomes of these interactions. As outlined in Subsection 3.3.3, there is sufficient research on the outcomes of customer-to-customer interactions and customer-employee interactions (Zhang et al., 2018; Bruhn et al., 2014; Cheung et al., 2018; Brodie et al., 2013; Luo et al., 2019; Hildebrand et al., 2017; Heinonen et al., 2018). However, the literature falls short in exploring the consequences of the interactions between human and non-human actors (i.e. human-machine interaction). The current research addresses the gap by exploring value co-creation and value co-destruction as consequences of human-to-non-human interactions during service encounters. Vargo et al. (2020) emphasise the importance of the interaction process and its outcomes for opportunities for value co-creation and CBE (Roy et al., 2020; Hollebeek et al., 2021). As presented in Subsection 3.3.2, the literature focuses on the attributes of human actors (Altinay et al., 2021; Paparoidamis et al., 2019; Henkel et al., 2017; Chiew et al., 2018, Kaminakis et al., 2019) that create value within these value-based service networks but overlooks the attributes of non-human actors. The current research extends the literature by revealing the characteristics of chatbots (non-human actors) that influence value co-creation and CBE.

Chapter 5

Methodology

5.0 Introduction

This chapter begins by presenting the research aims and objectives of this study. Subsequently, an illustration of the research process adapted for this study is presented, as well as a discussion of the positivist, interpretivist and pragmatic philosophic groundings. Thereafter, a justification for adopting the pragmatic approach for this research is provided.

This chapter also provides an extensive discussion and justification for the selected research design of the study, which consists of the mixed-method sequential exploratory design (SED). Subsequently, the chapter provides insight into the processes followed for conducting the semi-structured interviews, along with the convenience sampling procedures. Thereafter, the chapter outlines the processes used for designing and administering the online survey while discussing the quota sampling procedure followed for the survey.

5.1 Research Aims and Objectives

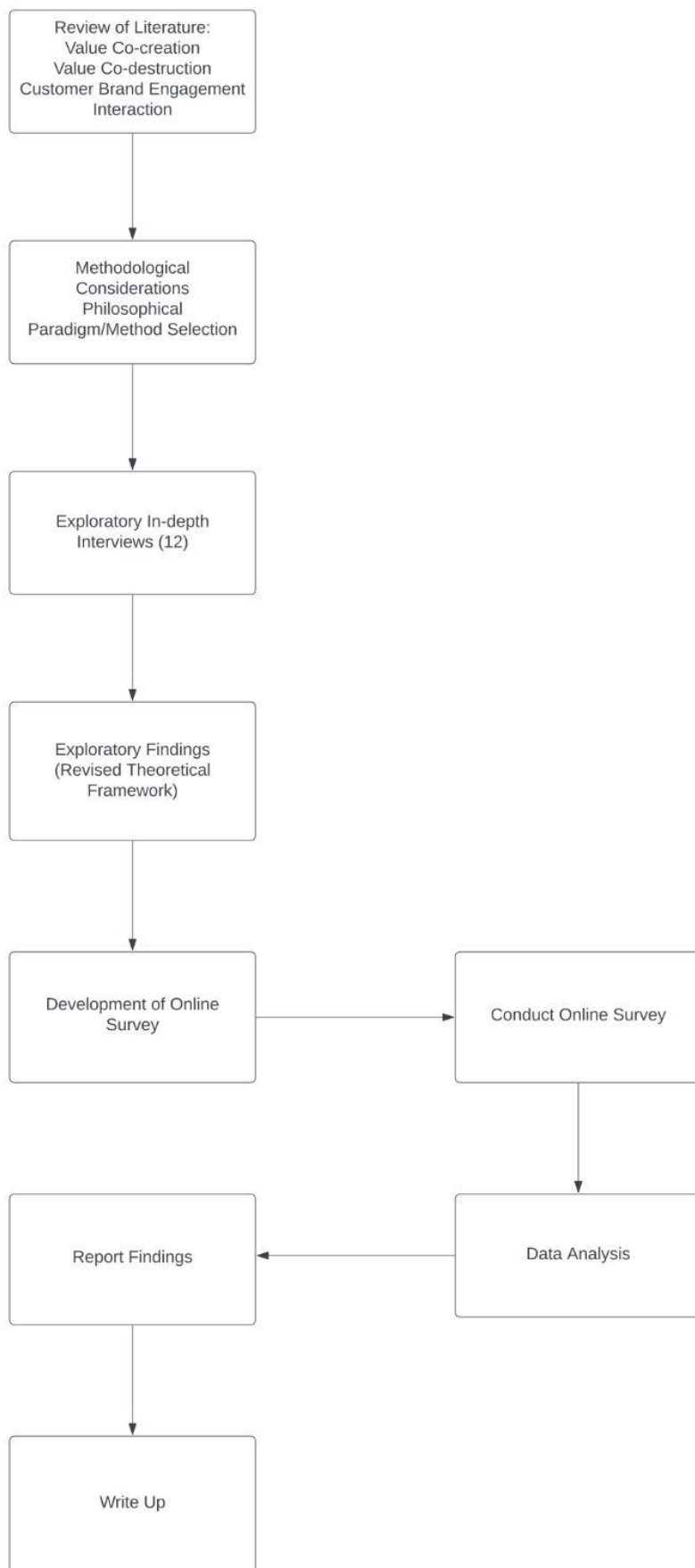
The aim of this research is to explore how (and if) customers experience value co-creation and/or value co-destruction when interacting with brands' automated technology in value-based service networks. The research objectives are as follows:

- (1) To explore how customers perceive the impacts of brands' automated technology on their experiences of value co-creation and value co-destruction.
- (2) To examine the variables influencing CBE when customers interact with brands' automated technology.
- (3) To examine the CBE outcomes that occur when customers interact with brands' automated technology; and
- (4) To examine customers' reasons for using brands' automated technology during the service encounter.

5.2 Methodology and Structure

Saunders et al. (2019) assert the importance of researchers following a clear and concise process to provide the logical and systematic research required to produce knowledge for the discipline. An illustration of the research process followed for the current study is illustrated in the form of a flow chart presented in Figure 5.1.

Figure 5.1 Research Process



The research process outlined enabled the rigorous and thorough execution of the current study. The researcher was able to carefully examine different phases of the research following the review of the value co-creation and CBE literature. Moreover, an in-depth understanding of the research process guaranteed that data were collected and analysed in a way that fits the purpose (Fischer and Bloomfield, 2019). This ensured that the findings of the study addressed the research objectives. The subsequent section discusses the philosophical ground of this research, a key component of the research process.

5.3 Research Philosophy

The implications of philosophical thinking are a key component of any research (Bell et al., 2015). Coates (2021) contends that the importance of understanding research philosophy is vital to conducting effective research. Kivunja and Kuyini (2017) suggest that the formation of objective knowledge is the focal aim of social science. Researchers state that philosophical thinking influences research results (Hughes, 2016; Easterby-Smith et al., 2015; Saunders et al., 2015); thus, it is imperative for researchers to understand it.

Easterby-Smith et al. (2015, p. 24) provide a clear justification regarding the importance of philosophical assumptions in management research:

It can help clarify the research design. This involves considering what kind of evidence is required and how it should be gathered and interpreted, as well as how this will provide good answers to the basic questions being investigated in the research to recognise which designs will work and which will not. It should enable the researcher to avoid going in too many blind alleys and should indicate the limitations of approaches. Third, knowledge of philosophy can help the researcher identify and even create designs that may be outside his experience. It may also suggest how to adapt research designs according to the constraints of different subjective or knowledge structures.

5.3.1 Ontology

According to Saunders et al. (2016), ontology is the starting point of research. It is identified as the foundation of any philosophical thinking, including epistemology, methodology and methods. Lohse (2017) defines ontology as the way by which an individual perceives the nature

of reality in the world we reside in and what can be known about the reality of that world. Accordingly, Easterby-Smith et al. (2015) define ontology as the assumptions that they make about the nature of reality. Thus, ontology affects what an individual believes may be learned or known about the world (epistemology), together with how one may explore it (methodology and methods) (Creswell, 2016).

Burrell and Morgan (1979) highlight that ontology discussions ask the following central questions in research: What exists? Does an outside truth of an ‘objective’ nature and independent from the researcher exist, or is reality socially constructed and ‘subjective’ and reliant on an individual’s perceptions? The perspectives are considered to have epistemological and methodological implications.

Burrell and Morgan (1979) posit that objectivism and subjectivism may be placed at either end of a continuum. Ontological positions can range from being completely objective, where a physical world exists, regardless of how the researcher perceives it, or fully subjective, where reality only exists as the creation of the individual and how they perceive the world.

5.3.2 Epistemology

According to Saunders et al. (2016), epistemology is associated with the way individuals see the nature of reality in the world with respect to the assumptions about the nature and grounds of knowledge. Easterby-Smith et al. (2004) state that given that individuals are unique, they view societal issues differently through the knowledge they have gained from their background, education and professional and personal experiences.

Burrell and Morgan (1979) state that epistemology refers to an individual’s assumptions on ‘the grounds of knowledge about how one might begin to understand the world and communicate this as knowledge to fellow human beings’ (p. 10). Thus, epistemological considerations are a critical component of this research.

5.4 Research Paradigms

According to Loshe (2017), philosophical underpinnings are closely linked and aid in guiding research paradigms. Teddlie and Tashakkori (2009) define a paradigm as ‘a worldview, together with various philosophical assumptions associated with that point of view’ (p. 84).

This set of assumptions offers a conceptual and philosophical framework with which to view the world (Saunders et al., 2019).

According to Creswell and Creswell (2018), ontological and epistemological assumptions are mainly portrayed through two distinct research philosophy paradigms, namely, positivism and interpretivism. The positivism, interpretivism and pragmatism paradigms are widely adopted within the domain of marketing (Creswell and Creswell, 2018; Simpson, 2018; Saunders et al., 2016). The subsequent sections discuss the three philosophical paradigms while outlining which provides the ideal ground for this research.

5.4.1 Positivism

Researchers who adopt positivist philosophical thinking see the world objectively and perceive themselves as objective analysts who are completely separated from the data that they analyse to prevent any influence over it (Dawadi et al., 2021). Positivist researchers use a deductive research approach, whereby theory is developed from literature (Teddlie and Tashakkori, 2009). In addition, they develop and test hypotheses through specific research designs and instruments that rely on measurable quantitative results, enabling them to analyse the research problem (Easterby-Smith et al., 2008). It is during this process that researchers taking a positivist stance seek causalities between chosen variables highlighted in the literature or relationships between constructs (Bryman, 2004). According to Saunders et al. (2016), the positivist paradigm enables researchers to test theories and generate evidence for laws. Given the lack of definitive theories in this research study's field, more exploration is needed. Thus, a purely positivist approach would not be the best fit for the current thesis.

5.4.2 Interpretivism

Interpretivism is often used interchangeably with various other names in the literature, including constructivism, constructivist, phenomenology, anti-naturalist and anti-positivist (Easterby-Smith et al., 2004). For the interpretivist paradigm, reality is 'subjective and differs from person to person' (Scotland, 2012, p. 11); it is socially constructed through language and culture (Kivunja and Kuyini, 2017). Moreover, interpretivism focuses on stories, narratives, perceptions and interpretations (Easterby-Smith et al., 2015).

Neuman (2011, p. 118) defines interpretive research as ‘the systematic analysis of socially meaningful action through the direct detailed observation of people in natural settings to arrive at understandings and interpretations of how people create and maintain their social worlds’. In essence, it concerns how individuals interact with each other. Khazanchi and Munkvold (2003) state that interpretivist researchers adopt the interpretive approach to gain a better understanding of the ‘human thought in relation to a specific context’. According to Klein and Myers (1999), ‘interpretive research does not predefine dependent and independent variables but focuses on the complexity of human sense-making as situations emerge’ (p. 69).

Researchers who adopt an interpretivist stance acknowledge that reality is part of what makes humans; thus, the subjective state of the researcher will have an effect on the research (Saunders et al. 2019). Consequently, interpretivist researchers perceive reality as a holistic process generated through time and socially constructed. According to Timans et al. (2019), the social aspect of management and business research is too complex to associate itself with set laws the way natural science does.

Therefore, interpretivists adopt an inductive approach in conducting research, whereby theory is developed upon the analysis of the data gathered. This philosophical approach enables researchers to expand what is known within a focused area of research (Saunders et al., 2019). With this approach, a smaller sample of objects tends to be examined or interviewed for a short period of time to obtain an understanding and interpret the phenomena. Through this, the researcher can identify patterns that are emerging and repeated in similar circumstances, which, in turn, may lead to the development of a theory (Dawadi et al., 2021). Table 5.1 provides a summary of the differences between the positivist philosophical stance and interpretivist philosophical stance.

Table 5.1 Explanations of Positivism, Interpretivism, Ontology, Epistemology and Methodology

	Positivism	Interpretivism
Ontology		
Nature of being/nature of the world	With direct access to the real world	Without direct access to the real world
Reality	Single external reality	No single external reality
Epistemology		
Grounds of knowledge/relationship between reality and research	Possible to obtain hard-to-secure objective knowledge	Understood through 'perceived' knowledge
	Research focuses on generalisation and abstraction	Research focuses on the specific and concrete
	Thoughts governed by hypothesis and stated theories	Seeking to understand a specific context
Methodology		
Focus of research	Concentrates on description and explanation	Concentrates on understanding and interpretation
Role of researcher	Detached external observer	Researchers want to experience what they are studying
	Clear distinction between reason and feeling	Allow feelings and reason to govern actions
	Aim to discover external reality rather than creating the object of study	Partially create what is studied or the meaning of phenomena
	Strive to use rational, consistent, verbal and logical approach	Use of pre-understanding is important
	Seek to maintain a clear distinction between facts and value judgements	Distinction between facts and value judgements that are less clear

	Distinction between science and personal experience	Accept influence from both science and personal experience
Techniques used by the researcher	Predominantly formalised statistical and mathematical methods	Primarily non-quantitative

(Adapted from Carson et al., 2001)

The differences between positivism and interpretivism are clearly illustrated and summarised in the table above. Interpretivism provides the researcher with an interesting approach to developing a theory and observing real-life situations. However, the current study aims to generate and test hypotheses using a quantitative survey. Albarasheh (2020) contends that interpretivism views individuals as actors in the social world instead of focusing on the way they are impacted by social structures and external forces. The current research focuses on how automated technologies impact customers' experiences of value co-creation and/or value co-destruction. Therefore, a purely interpretivist approach may not be appropriate for this research.

5.4.3 Pragmatism

The paradigm war between the positivist and interpretivist paradigms has led to the emergence of the pragmatism research paradigm (Easterby-Smith et al., 2015). The pragmatism research paradigm was postulated by Mead (1938), Dewey (1931) and James (1989). According to Kaushik and Walsh (2019), the pragmatist research paradigm uses a 'pluralist' stance; thus, it applies whichever methods are ideal to answer the study's research objectives. Accordingly, it is possible to integrate a pragmatist study with interpretive or observational research methods (Baskarada and Kornis, 2018). The pragmatism research philosophy paradigm believes that philosophical thinking is independent and can be used interchangeably, together with distinct choices in research methods, to address the research objectives. According to Goldkuhl (2012), the nature of pragmatism comprises 'actions' and 'change', and we live in a world that is continuously changing.

Despite the literature, the pragmatic research approach has received criticism because the philosophy of the paradigm lacks a concise definition and is controversial. Therefore, Hall (2012) suggests that it should not be considered a research paradigm. Numerous researchers use the pragmatism research paradigm to generate research that is not

viable through other philosophical assumptions (Kaushik and Walsh, 2019). However, some quantitative researchers have a negative view towards this approach (Sechrest, 1992).

Despite this negative view, various researchers encourage the use of mixed methods (quantitative and qualitative) in social science research (Tashakkori and Teddlie, 2009; Creswell, 2003). In addition, Creswell and Clarke (2007) stand by pragmatism, stating that it should be the main research philosophy paradigm.

Table 5.2 provides a summary of some of the benefits of the pragmatic approach, as discussed by Teddlie and Tashakkori (2009), Creswell (2003) and Tashakkori and Teddlie (1988).

Table 5.2 Benefits of the Pragmatic Approach

Pragmatic Approach	Benefits
1	The approach taken in the research can be linked directly to the research questions the study wants to answer.
2	Pragmatism provides a natural application where the appropriate methods can be used.
3	The ‘what works’ strategy is deployed, wherein the researcher can answer research questions from both a qualitative and quantitative approach, which is an adoption of mixed methods.
4	Findings can be used in a positive manner because they are practical.

(Source: Creswell and Clarke, 2007)

5.5 Research Paradigm Adopted in This Study

The current study adapts the pragmatism research paradigm as it is the most suitable for answering the research objectives without any constraints. Pragmatism enables researchers to adopt both qualitative and quantitative research methods (Shusterman, 2016). Simpson (2018) states that through pragmatism, the research philosophy paradigms can work together to generate a complementary piece of research. Teddlie and Tashakkori (2009) highlight that the

pragmatic stance enables the researcher to use the ‘what works’ approach, as indicated in Table 5.2. Furthermore, the findings obtained from this research would be applied in accordance with Goldkuhl (2012), who states that ‘one foundational idea with the pragmatism research paradigm is that the meaning of an idea or a concept is the practical consequence of the idea or concept’ (p. 7). Research exploring technology-mediated value co-creation is in its infancy; thus, established theoretical underpinnings are limited. As such, it is essential that this study is grounded in the pragmatic philosophical paradigm, which, in this case, does not constrain the research with confined laws and philosophical assumptions.

5.6 Methodological Considerations

Bell et al. (2015) state that research methodology is viewed as the techniques used within a study to collect data. McDaniel and Gates (2019) assert that research should be controlled by an appropriate methodology. However, no research methodology has been set due to the various philosophical paradigms and distinct types of research (Saunders et al., 2016). As a result, different research studies require different and even multiple methods to address the research questions (Creswell, 2003). Thus, it is essential that the researcher adopt the appropriate research methods to examine the phenomena.

Saunders et al. (2019) suggest that research studies primarily consist of either a deductive or inductive approach. The deductive approach relates to exploratory research using quantitative methods. In addition, the researcher focuses on theories that have already been established. Thereafter, hypotheses are formed to examine the relationships proposed. The findings may then lead to further theory development (Easterby-Smith et al., 2015).

On the other hand, the inductive approach is linked to more qualitative methods. This approach involves defining the research problem with little to no theoretical framework. In addition, the focus of this approach is based on the observation or in-depth questioning of a respondent, whereby wide-ranging themes are outlined, and the researcher probes the respondent to elaborate on the topic at hand (Sunders et al., 2019; Bell et al., 2015). In essence, within inductive research, the respondents help in explaining the nature of specific issues (Malhotra, 2004). A mixed-method research approach is required to gain an in-depth understanding of how (and if) customers experience value co-creation and/or value co-destruction when interacting with a brand’s automated technology.

5.7 Research Design

Mixed-method approaches have expanded in recent years, and various books and journals advocating the approach have been published (Creswell and Creswell, 2018; Creswell & Plano, 2017; Timans et al., 2019; Baskarada and Koronis, 2018). The modern approach to mixed methods has moved beyond simple triangulation to becoming an approach to inquiry involving both philosophical assumption and the mixing and integration of both quantitative and qualitative methods within the same study. Crucially, according to Creswell and Creswell (2018, p. 4), mixed methods entail more than simply collecting and analysing both kinds of data. It also involves the use of both approaches in tandem, so the overall strength of a study is greater than either qualitative or quantitative research.

Mukumbang (2021) notes that mixing qualitative and quantitative methods does not necessarily need to be within one study but could be found ‘among several studies within a programme of inquiry’. This is the approach adopted within the current thesis. Before the specific research design is discussed, it is important to identify the benefits and drawbacks of a mixed-method approach to provide further justification for the approach adopted within the thesis. The principle benefits and challenges are shown in Table 5.3.

Table 5.3 Benefits and Challenges of Mixed-Method Research

Benefits	Challenges
Provides stronger results through triangulation of findings	It can be difficult for a single researcher to carry out both qualitative and quantitative research, especially if two or more approaches are expected to be used concurrently; a research team may be required
Words, pictures, and narrative can be used to add meaning to numbers	The researcher has to learn multiple methods and approaches and understand how to mix them appropriately
Numbers can be used to add precision to words, pictures and narrative	Methodological purists contend that one should always work within either a qualitative or quantitative paradigm

Can provide quantitative and qualitative strengths	More expensive
Researchers can generate and test a grounded theory	More time consuming
Can answer a broader and more complete range of research questions because the researcher is not confined to a single method or approach	Some philosophical issues remain (analysing mixed results, problems of paradigm mixing)
A researcher can use the strengths of an additional method to overcome the weaknesses in another method using both in a research study	Can encounter difficulties in the review process
Can provide stronger evidence for a conclusion through convergence and corroboration of findings	Reporting of results can be problematic within journal restraints
Can add insights and understanding that might be missed when only a single method is used	
Can be used to increase the generalisability of the results	
Provides a holistic understanding of phenomena	

(Source: Davis et al., 2011; Johnson and Onwuegbuzie, 2004, p. 21)

The pragmatic, mixed-method approach for conducting research has a wide practical appeal and is suitable for the current study to answer the research questions. Therefore, this research uses a mixed-method approach that can generate more convincing outcomes and provide a better understanding of the research problems than results from single methods (Creswell and Plano Clark, 2017; Mukumbang, 2021), because single-method studies can restrict the scope of research and contain certain inherent biases. Creswell (2009) identifies the six most used forms of mixed-method research designs categorised under two principal headings, namely, sequential and concurrent designs. For the current study, the researcher adopts a suitable SED, characterised by an initial stage of qualitative data collection and analysis, followed by the

second stage of quantitative data collection and analysis. This was an appropriate design for this research, given the absence of any previous research examining customers' experiences of value co-creation, value co-destruction and CBE following their interaction with brands' automated technologies (chatbots). The concepts of value co-creation and co-destruction within chatbot-enabled service contexts remain underdeveloped due to a lack of theory and previous research. This forms the basis for initial qualitative research to advance the understanding of the relevant measures and interrelationships (Timans et al., 2019).

5.8 Qualitative, Quantitative and Mixed Methods

Several researchers have allocated a substantial amount of focus on the discussion of and the differences between quantitative and qualitative research (Creswell, 2014; Bryman and Bell, 2015; Wilson, 20128; Saunders et al., 2016). McDaniel and Gates (2019) and Wilson (2012) highlight the variances between quantitative and qualitative research, outlining the numerical differences. Wilson (2018) explains quantitative research as 'research which is undertaken using a structured research approach with a sample of the population to produce quantifiable insights into behaviour, motivations and attitudes' (p. 130). Meanwhile, qualitative research can be defined as 'research which is conducted using either a structured or unstructured research approach with a small number of carefully selected individuals to produce non-quantifiable insights into behaviour, motivations and attitudes' (King et al., 2021, p. 57).

According to Bell (2015), quantitative research tends to come in the form of surveys, which may show numerical information and offer structured insights into consumer behaviours, motivations and attitudes. Statistical analysis may be conducted through the use of quantitative research because of the large sample size it offers, providing researchers with more dependable information on the target audience (McDaniel and Gates, 2019). Surveys are considered the most popular method of quantitative research. They offer the researcher versatility in terms of where to conduct the research, as well as the availability to the target audience (Bryman and Bell, 2015). King et al. (2021) assert that surveys may be administered in various ways, including in written form, verbally or via computer-based technology.

According to Valtaskoski (2020), qualitative research is conducted in the form of observations, focus group discussions, in-depth interviews and a host of other means, including ethnography, case studies and concept maps. As outlined previously, qualitative research enables the researcher to gain an in-depth but non-quantifiable insight into consumer behaviour from small

samples. Although the data may not be quantifiable, qualitative research offers a ‘deeper and more penetrating insight’ (Braun et al., 2021, p. 21) into subject areas where such may not be possible through quantitative research. However, researchers suggest that a study integrating both qualitative and quantitative research methods may assist in providing an in-depth understanding and information of the representativeness of the specific understanding through numerical means (Harrison and Reilley, 2012; McDaniel and Gates, 2019; Braun et al., 2021; King et al., 2021; Wilson, 2018).

Creswell and Creswell (2018) highlight the proliferating trend towards mixed methods in marketing research and research, in general, with the aim to appropriately address the research questions. This, in turn, has led to numerous studies adopting both qualitative and quantitative research approaches (Jarvinen and Mik-Meyer, 2020), suggesting that ‘no single method adequately solves the problem’ (p. 203).

In accordance with the pragmatic philosophical view, Harrison and Reilley (2011) outline that the mixed-method approach is practical as it enables the researcher to make use of any method possible to address the research questions. Moreover, Creswell and Plano (2017) suggest that the mixed-method approach aligns with how individuals resolve everyday issues, with the integration of words and numbers, by adopting what may be considered as both an inductive and deductive approach.

Researchers using a mixed-method approach conduct a qualitative phase of research, followed by a quantitative phase or vice versa. Making use of a qualitative to a quantitative sequence of research enables the current study to obtain exploratory qualitative data on a new subject area while using the results to refine the conceptual framework and develop the quantitative phase. Given the lack of research regarding how (and if) customers experience value co-creation when interacting with brands’ automated technology, the current study adopts a sequential qualitative-to-quantitative mixed-method approach.

5.9 Selection of a Methodological Approach

Recent studies in the field of value co-creation and value co-destruction have made use of either qualitative or quantitative research approaches constituting in-depth interviews and surveys (Breidbach and Maglio, 2019; Huang and Rust, 2020; Xie et al., 2016). However, the qualitative approach is the dominant methodological approach in researching value co-creation and value co-destruction, as illustrated in Chapter 2 (Tables 2.1 and 2.2).

The current study offers an alternative approach in seeking rich data about an under-researched area, thereby adopting a mixed-method approach, where exploratory research in the form of in-depth interviews will be conducted first to assist the researcher in developing a basis for a wider quantitative phase.

According to McDaniel and Gates (2019), the use of a mixed-method approach assists the researcher in reducing the number of variables in the conceptual framework derived from the literature review and offers richer insights into the phenomenon being studied. Thus, the selection of the best-fitting research method is critical for all research studies. Using an inclusive and robust methodology is essential, given the complexity of this study.

Braun et al. (2021) highlight that the use of the mixed-method approach may assist the researcher in understanding attitudes and behaviour, together with understanding how extensive these attitudes and behaviours may be. Within the mixed-method approach, studies tend to begin with interviews, followed by surveys. Given the lack of research relating to the current study, the exploratory and qualitative elements of the study consist of in-depth interviews with customers to gain insight into their interactional experiences with brands' automated technology while highlighting the characteristics of these automated technologies that co-create or co-destroy value for the customer during service encounters. The current study's quantitative phase was conducted using a wider online survey administered by the researcher.

5.10 Interviews

Given the lack of research relating to how and if customers experience value co-creation or value co-destruction when interacting with brands' automated technology during the service encounter, exploratory interviews were the best-fitting approach to add validity and robustness to the conceptual framework while outlining the variables relevant for the study. Hughes et al. (2020) add that interviews offer the researcher an initial understanding that may be further developed.

Researchers suggest that semi-structured or unstructured interviews should be conducted to obtain a clear understanding of the topic at hand. Structured interviews may be restrictive at the exploratory stage of the research and resemble the survey method (Johnson et al., 2021; Bryman and Bell, 2015; Malhotra, 2010; Brinkman and Kvale, 2018). Johnson et al. (2021)

conjecture that semi-structured interviews are the most popular form of interview as they enable the researcher to adjust the order of questioning or question topics depending on the flow of the interview.

Hughes et al. (2020) state that given the nature of semi-structured and unstructured interviews, researchers should probe respondents to obtain greater insight into avenues that had not been considered. This is a key advantage of semi-structured or unstructured interviews, as this may reveal a new area for the researcher to explore further, which may not have been evident otherwise. Given the lack of research on the topic of the current study, a more in-depth understanding of the participants' experiences with brands' automated technology is needed. Therefore, semi-structured interviews are appropriate for the current study.

5.10.1 Sampling

Sampling is typically defined as probability and non-probability (Easterby-Smith et al., 2015; Chandler et al., 2019; Johnson et al., 2021). Selection of one of these forms is dependent on the nature of the research project, the data being collected and the types of participants who need to be targeted (Braun et al., 2021). Non-probability sampling is associated with gathering data from a variety of idiosyncratic viewpoints to represent a range of perspectives on a given topic (Chandler et al., 2019). Non-probability approaches (sometimes referred to as purposive) (Teddlie & Tashakkori, 2009) are mostly associated with sequential mixed-method designs and are used for the researcher to select particular persons or events that can provide information that may not be available from other sources (Uprichard and Dawney, 2019; Dawadi et al., 2021). Some typical approaches to non-probability sampling are summarised in Table 5.4.

Table 5.4 Non-Probability Sampling Methods

Sampling Approach	Description
Convenience Sampling	Selecting individuals for the study on the basis of convenience only
Purposive Sampling	Selecting individuals whose views are relevant to a particular issue; includes key informant techniques and snowball sampling
Stratified Sampling	Subgroups (strata) within a population are identified and individuals or groups within the strata are targeted
Quota Sampling	Selecting respondents who are representative of the diversity within a population

(Adapted from Jankowicz, 2005; Teddlie & Tashakkori, 2009)

For semi-structured interviews, purposive sampling, specifically snowball sampling, is used to target specific industry types to fit the chosen sample outlined in Section 5.1.

Selecting the appropriate sample is critical, given the specific context of the current study. The population of interest for this study is composed of customers who have used chatbots (i.e., virtual or digital assistants) for service delivery in their past service encounters with brands or service providers. Customers who had used the chatbots of Amazon, Asos, Skyscanner and Vodafone for service delivery in a previous service encounter were selected as the appropriate sample for this study. These chatbots were selected because they match the definition of a chatbot. This definition was presented in Chapter 1. Moreover, Amazon accounts for 34% all online retail sales, while Asos is the largest online fashion retailer with a market share of 6.6%. Sky Scanner attracts over 50 million visitors per month online. Vodafone and O2 have a market share of 19% and 16% respectively, while H&M is a popular fast fashion brand with a strong online and offline presence (192 physical stores) (Statista, 2022). In addition, Amazon, Asos, Sky Scanner and Vodafone chatbots are similar in functionality. They can perform a range of tasks in comparison to the chatbots of other brands that act as a questionnaire/form for processing returns. More specifically the Amazon, Asos, Sky Scanner and Vodafone chatbots are used at the beginning of the interaction/service encounter with the customer. If the chatbots are unable to resolve the customers' requests, the chatbots then pass the customer onto a human service provider. Finally, these chatbots are easy to locate on the brand's/ service provider's website, which is not the case for some brands and service providers that seem to make it challenging to locate their chatbots.

To begin the recruitment process, the researcher used the snowball sampling method (Parker et al., 2019) and approached individuals asking if they were a consumer of either Amazon, Asos, Vodafone and/or Skyscanner. If the individuals were consumers of one of the brands or service providers, the researcher then asked them to choose one brand or service provider for the purpose of this research. Thereafter, the selected individuals were shown stimuli videos of customers interacting conversationally with the chosen brand or service provider's chatbot. Caic et al. (2019) conduct a study based on virtual assistants and make use of stimuli videos before conducting focus groups, after which the individuals were asked if they had experienced such an interaction before with the same brand or service provider. Doing so enabled the researcher to pre-verify whether the individuals had previously used the brand's chatbot. If they had experienced such an interaction, they were then asked to participate in an interview one–two weeks from the recruitment period. Among the 12 participants who were willing t

participate in the research, a variation of age, gender and profession were obtained. Table 5.5 illustrates the sampling details of each participant.

No incentives were offered to the individuals to participate in the research. This overcame issues with the individual’s motivations for taking part in the research (Bryman and Bell, 2015). Each interviewee gave their consent to be recorded for transcribing purposes and the potential of their quotations being included in the study’s thesis. Each respondent was assured that their name would not be included in the transcripts, ensuring anonymity. Each participant was given a code name, as illustrated in Table 5.5, starting from (R1) to (R12).

Table 5.5 Summary of Exploratory In-Depth Interview Respondents

Respondent	Gender	Age	Occupation
R1	Male	26	Chartered Accountant
R2	Female	27	Charity Case Worker
R3	Female	33	Commercial Strategist
R4	Male	25	Project Manager
R5	Male	26	Legal Analyst
R6	Male	34	PhD Student
R7	Female	23	PhD Student
R8	Male	34	Teaching Associate
R9	Female	33	Secretary
R10	Male	25	Self-Employed
R11	Male	51	Professor
R12	Female	55	Homemaker

5.10.2 Topic Guide Creation for Interviews

Researchers highlight that a topic guide should consist of headings that outline the broad agenda, along with follow-up topics and probes for further exploration (Trent and Cho, 2020; Uprichard and Dawney, 2019). As mentioned previously, the topic guide is based on the initial research objectives and literature review. The topic guide can be found in Appendix 1. According to Wilson (2018), the topic guide is made of three phases, namely, the introduction

phase, the discussion phase and the summarising phase. Table 5.4 summarises each of these phases.

Table 5.4 Topic Guide Phases

1	The Introduction Phase	<ul style="list-style-type: none"> ● The objectives of the interview. ● Explanation of the nature of the interview. ● The general agenda of the topics to be followed. ● Prompts for participants to introduce themselves.
2	The Discussion Phase	<ul style="list-style-type: none"> ● General topic areas to be discussed. ● Potential prompts and stimulus material.
3	The Summarising Phase	<ul style="list-style-type: none"> ● Prompts for summarising what has been discussed. ● Appreciation to participants.

(Adapted from Wilson, 2018)

Leech and Onwuegbuzie (2009) mention the use of stimulus material in the ‘discussive phase’ of the research. Stimulus material was integrated into the exploratory in-depth interviews conducted in the current study. According to Sampson and Johannessen (2020), stimulus material may assist the respondent in creating a visual impression that facilitates overcoming issues of ‘self-recall’. McDaniel and Gates (2019) add that the use of stimulus material assists the researcher in clarifying what exactly is being asked of the respondent.

The stimulus section of the in-depth interviews during the discussion phase consists of showing the participants’ screen-recorded videos of random users interacting with chatbots belonging to their chosen brand or service provider. The purpose of these screen-recorded videos was to refresh the participants’ memory with respect to their past interaction with their chosen brand or service provider’s chatbot. Doing so also ensured that the participants understood the contexts of the questions.

The interviews were conducted over Zoom, an innovative videoconferencing platform. Archibald (2019) indicates that researchers and interviewees have reported that using Zoom

for interviews was user-friendly, simple, convenient for the interviewee and increased rapport between the researcher and the interviewee. Each interview was recorded using an encrypted digital recorder. The audio files were then fully transcribed using Microsoft Word.

5.10.3 The Interviewer

During qualitative interviews, the role of the interviewer is to obtain in-depth and specific insights on a subject area. With respect to semi-structured in-depth interviews, the researchers aim to get the interviewee to lead the discussion and actively engage in the interview, thereby creating a conversation as opposed to a simple question-and-answer type interaction (Saunders et al., 2019). Thus, the interviewer is considered to be more of a facilitator, keeping the discussion relevant to the subject area and probing the interviewee for greater insight when necessary (McDaniel and Gates, 2019; Dawadi et al., 2021).

In this study, the researcher avoided leading the interview and did not use any leading questions or examples. In accordance with King et al. (2021), the researcher acted as a facilitator of the interviews while encouraging the respondents to lead the discussions, as the respondents had the knowledge and insight needed for this study.

5.10.4 In-Depth Interview Analysis

After completing each interview, the researcher transcribed the interview using Microsoft Word. Doing so provided a complete word-for-word account of the interview. Lowe et al. (2018) state that the transcripts form the basis of the data analysis.

The data from the transcripts were colour-coded and categorised into different themes, allowing for easier data analysis. The researcher began the coding process by allocating colour codes to quotations that were related to each other from each of the 12 transcripts. Afterwards, the researcher extracted a keyword or key phrase that became a key variable of the study, as illustrated in the subsequent chapter. Saldana (2021) contends that data categorisation may be carried out in various ways, and it is up to the researcher how data categorisation is conducted. While coding is a time-consuming process, it enables the researcher to establish the key themes and variables (Kivunja and Kuyini, 2017; Lester et al., 2020). While coding the transcripts, the researcher reached theoretical saturation at a certain point. In addition, no new themes or topics emerged from the twelfth interview. As a result, the researcher stopped at 12 interviews.

McDaniel and Gates (2019) state that it is critical to conduct data validation checks after in-depth interviews to ensure the reliability and validity of the data obtained. Researchers suggest two ways by which data validation checks can occur to ensure the validity of the explanations and interpretations obtained from the data analysis: participant validation and triangulation.

Lester et al. (2021) define triangulation as the process whereby the researcher can confirm the findings derived from qualitative research. This validation may also come from data published in previous studies or through an array of quantitative data to confirm the qualitative research findings.

Meanwhile, participant validation, which is increasing in popularity, is an additional form of data validation that researchers may use (Johnson et al., 2021). It involves independent judges or participants who have taken part in the study reading through the transcripts to provide the researcher with feedback relating to how they interpret and analyse the data. The feedback fundamentally confirms the conclusions obtained from the data, giving the researcher confidence in the validity of the findings (Bell, 2015).

5.11 Online Survey

According to Braun et al. (2021), a survey can be seen as a structured mechanism that involves a series of written or spoken questions for participants to answer; it is either self-administered or administered by the researcher. Dzwigol (2020) further suggests that a survey should provide the information required from a set of questions that participants are able and willing to answer. Brace (2018) points out that the survey design process is extremely important, as poor questioning can lead to misunderstandings that are often evident in common conversations. However, the luxury within these common conversations is that facial expressions, hand gestures and interruptions for clarification can take place. Conversely, with surveys, this is not always available. Nayak and Nayaran (2021) elaborate that 'noise' can occur from poor questioning, resulting in confusion and misinterpretation of the question. The survey design process is not simply a discrete linear process. Each step is somewhat interrelated, as the survey design is an interactive process that involves numerous drafts before the survey is taken to the field (Goldstein, 2015).

5.11.1 Survey Topics

When developing the research topics and content, the researcher considered the research aim, objectives and findings from the semi-structured interviews conducted in the initial stage of this study (Bryman, 2017). The researcher made use of questions that could answer the research objectives (Braun et al., 2021). Goldstein (2015) highlights that if exploratory research is carried out before the quantitative stage, the exploratory findings can be used to help clarify what should be further explored and asked during the quantitative phase of research.

5.11.2 Question Phrasing

The researcher ensured that simple phrases were used in each question. Brace (2018) points out that clear and simple ‘phrases’ should be used in each question, so it would be easier for the respondent to understand and would not lead to ambiguity. Wilson (2018) highlights that testing should take place to identify if the question has any other meaning or whether simpler wording can be adopted. Moreover, the researcher should not ask two questions within the wording of one question (Beatty et al., 2019).

5.11.3 Response Formats

Three key response formats exist (Braun et al., 2021; Beehr et al., 2022), including open-ended questions, closed questions and scaling questions. Open-ended questions are questions that allow the respondent to answer in their own words without any options for them to choose from. In essence, the response may range from a one-word answer to a very detailed response (Wilson, 2018). The current thesis did not use any open-ended questions. On the other hand, closed questions require the respondents to choose a response from a predefined list of responses. Bryman (2017) points out two types of closed questions, namely, dichotomous questions with only two options to choose from, most often, ‘yes’ or ‘no’, and multiple-choice questions that include more than two response options. The current thesis used five dichotomous questions. Two of the five questions were used for the screening process, following a ‘yes’ or ‘no’ format. The participants were disqualified from the survey if they answered ‘no’ to these questions. The remaining three dichotomous questions focused on the respondents’ usage of the chatbots (when was the last time they used the chatbot, how did they identify that it was a chatbot and what the chatbot was used for). These were multiple-response questions.

Scaling questions within the domain of marketing research often refer to numerical measures of attitudes, opinions, feelings and customer perceptions. The current thesis focuses on customers' perceptions and attitudes towards brands' and service providers' chatbots. Thus, a total of 53 Likert scale questions were also integrated into the survey. The application of numbers allows the researcher to compare and summarise the responses of respondents (Bryman, 2017; Beehr et al., 2022). Moreover, Likert scale questions are particularly important for this study, as this allows the researcher to use statistical techniques to analyse the data collected. From the statistical analysis, the researcher can then identify any relationships between variables in the study (Danermark et al., 2012).

5.11.4 Question Sequence

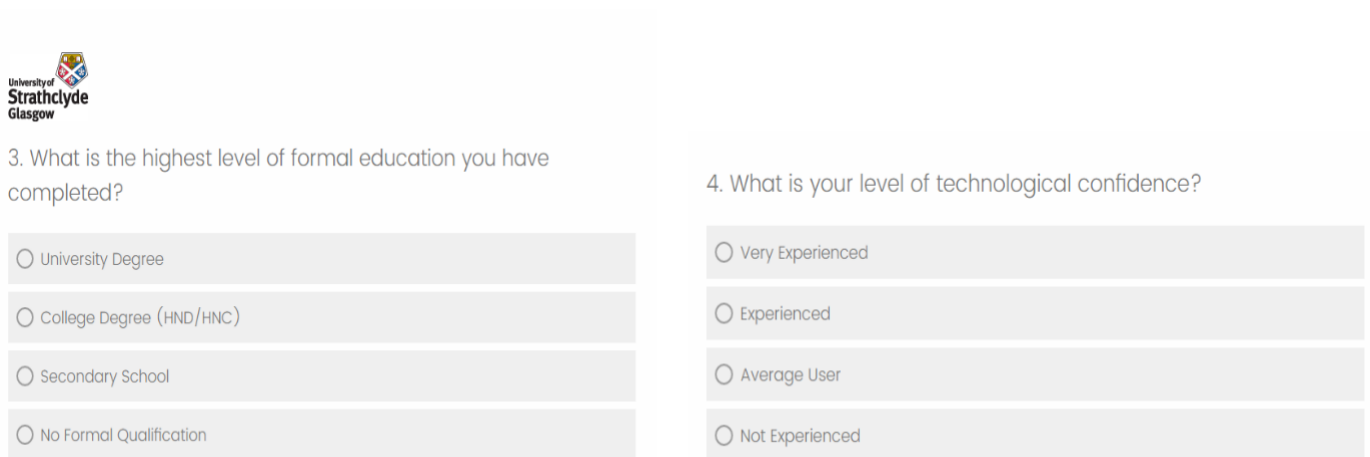
When developing the sequence of the survey, Braun (2021) suggests that researchers approach sequencing from the respondent's point of view (i.e. what the respondent finds interesting and logical). Bryman (2017) suggests that a survey that jumps from subject to subject with no clear logic can somewhat frustrate the respondent and make the survey feel like an interrogation rather than a relaxed piece of research. Accordingly, the researcher grouped the questions on the same or similar topics, allowing the respondent to focus on their train of thought before moving on to the next topic area.

The survey began with classification questions that focused on gender, age and education, which appeared at the beginning of the survey, in accordance with other researchers (Aaker et al., 2011; Creswell and Clarke, 2017). Thereafter, the questions focused on participant screening, with two disqualifying questions on the recall and usage of chatbots. These questions were presented at the early stage of the survey to ensure that the participants had prior experience using chatbots, specifically those that belong to either Amazon, Vodafone, O2 or H&M. Afterwards, questions regarding the recall, identification and the respondents' reasons for using the chatbots were presented. The responses to these questions illustrated when was the last time the respondents used their chosen brand's chatbot, how they were able to identify the specific chatbot and the respondents' reasons for using their chosen brand's chatbot. Subsequently, 53 Likert scale questions measuring each of the 12 variables were presented. The Likert scale questions focused on social presence, interactivity, personalisation, information quality, utilitarian value, value co-creation, value co-destruction, empathy, comprehension, CBE, brand re-usage intention and continuance intention.

5.11.5 Survey Layout

Brace (2018) asserts that a survey should look attractive, uncluttered and easy to understand. Braun et al. (2021) add that appropriate spacing should be used. In addition, Stockemer et al. (2019) comment that an outline of the research and instructions should be clearly provided at the start of the survey. All of these were provided to the respondents (see Appendix 3). The survey was designed and administered using the Qualtrics online software. Questions were grouped on separate pages, as shown in Figure 5.1. This grouping helped keep the survey in logical form.

Figure 5.1 Questionnaire Layout



The image shows a screenshot of a questionnaire interface. At the top left is the University of Strathclyde Glasgow logo. Below it, question 3 asks: "3. What is the highest level of formal education you have completed?". It has four radio button options: "University Degree", "College Degree (HND/HNC)", "Secondary School", and "No Formal Qualification". To the right, question 4 asks: "4. What is your level of technological confidence?". It has four radio button options: "Very Experienced", "Experienced", "Average User", and "Not Experienced".

5.11.6 Measurement Scales

The seven-point Likert scale was adapted to examine the variables in this research. This involved respondents being asked to outline their level of agreement with the statements presented (Joshi et al., 2015). The scale adopted within this study uses the descriptors 1= strongly disagree, 2= mostly disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = mostly agree and 7 = strongly agree. From this scale, the researcher was able to elicit either a favourable or unfavourable attitude towards the studied phenomena (Wilson, 2018; Braun et al., 2021; Stockemer et al., 2019).

The scale items for each variable to be used in the survey were adapted from influential research studies within the domain of marketing. Each scale was carefully considered with the purpose

of delivering meaningful data. Adopting the correct scales is an important part of research (Creswell, 2003). The measurement scales for each variable are presented in Table 5.5.

Table 5. 5 Measurement Scales (see next page)

Variable	Measurement Scale	Authors	Journal	Derived From
1. Social Presence	<ul style="list-style-type: none"> • The chatbot acknowledged me right away. • The chatbot replied to me instantly. • My interactions with the chatbot are similar to those with a human. • During my communication with the chatbot, I felt like I was dealing with a real person. • I communicate with the chatbot in the same way as I communicate with humans. 	(Newly developed) McLean and Frimpong, 2019	Computers in Human Behaviour	Interviews and literature
2. Interactivity a. Control b. Two-way communication c. Responsiveness	<ul style="list-style-type: none"> • I was in control of my interaction with the chatbot. • I had some control over the content the chatbot provided me. • I was in control of the pace of my interaction with the chatbot. • I could communicate with the chatbot directly and ask questions about the brand or its products if I wanted to. • I could communicate in real time with the chatbot. • The chatbot had the ability to respond to my specific questions quickly and efficiently. • The chatbot was talking back to me consistently when I asked questions. 	Liu and Shrum, 2003 Song and Zikhan, 2008	Journal of Advertising Research	Interviews and literature
3. Personalisation	<ul style="list-style-type: none"> • I value the chatbot, as it is personalised for my usage experience preferences. • I value the chatbot as it acquires my personal preferences and personalises the service and products to suit me. • I value the chatbot as it gives me personalised feedback. 	Ameen et al., 2020	Computers in Human Behaviour	Interviews

4. Information Quality	<ul style="list-style-type: none"> • The information provided by the chatbot was current. • The information provided by the chatbot was complete and comprehensive. • The chatbot provided accurate information for my needs. • The information provided by the chatbot was easily understandable. 	Flanigan and Metzger, 2007; Guo et al., 2012	New Media and Society Asian Social Science	Interviews
5. Utilitarian Value	<ul style="list-style-type: none"> • Using the chatbot is a convenient way to manage my time. • Completing tasks with the chatbot makes my life easier. • Completing tasks with the chatbot fits my schedule. • Completing tasks with the chatbot constitutes efficient use of my time. 	McLean and Frimpong, 2019	Computers in Human Behaviour	Interviews
6. Value Co-Creation	<ul style="list-style-type: none"> • Interacting with the chatbot provided me with relevant information. • Interacting with the chatbot provided me with an efficient way to manage my time. • Interacting with the chatbot enabled me to undertake my service experience securely. • The chatbot made the brands' customer service support more accessible and easier to find. • Interacting with the chatbot added value to my experience. 	Pena et al., 2014	Service Industries Journal	Literature
7. CBE	<ul style="list-style-type: none"> • Using the brand's chatbot gets me thinking about the brand. • Using the brand's chatbot stimulates my interest in the brand. • I feel positive when I use the brand's chatbot. • I feel good when I use the brand's chatbot. • Using the brand's chatbot makes me happy. 	Hollebeek et al., 2014	Journal of Interactive Marketing	Interviews and Literature

	<ul style="list-style-type: none"> • I am proud to use the brand's chatbot. 			
8. Value Co-Destruction	<ul style="list-style-type: none"> • When I interact with the chatbot, it provides me with incomplete information. • When I interact with the chatbot, I do not trust it fully. • When I interact with the chatbot, it makes mistakes. • The chatbot does not meet my service expectations. • The chatbot does not serve my service-related needs. 	Jarvi et al., 2018	Scandinavian Journal of Management	Literature
9. Empathy	<ul style="list-style-type: none"> • There is an element of human touch during the interaction with the chatbot. • The chatbot comprehends the urgency of the situation. • The chatbot diffuses my feelings of anger, frustration, stress and concern. 	Castillo et al., 2020	Service Industries Journal	Interviews

10. Comprehension	<ul style="list-style-type: none"> • The chatbot always understands my questions during the interaction. • The chatbot does not repeat its answers or questions. • The chatbot does not give the same answers to different questions. • The chatbot asks the right amount of questions to understand my issue. • The interaction with the chatbot is fluid. • The chatbot provides a reply that is relevant to my problem. 	Castillo et al., 2020	Service Industries Journal	Interviews
11. Continuance Intention with the Chatbot	<ul style="list-style-type: none"> • I plan to keep using the brand's chatbot to address my service-related needs. • I intend to continue using the brand's chatbot in the future. • I expect my use of the brand's chatbot will continue in the future. 	Hepola et al., 2020	Journal of Retailing and Services	Literature and Interviews
12. Brand Usage Intention	<ul style="list-style-type: none"> • It makes sense to use my chosen brand instead of any other brand, even if they are the same. • Even if another brand has the same functionality of my chosen brand, I will prefer to use my chosen brand. • If there is another brand as good as my chosen brand, I prefer to use my chosen brand. • If another brand is not different from my chosen brand in any way, it seems smarter to use my chosen brand. 	Yoo and Donthu, 2001	Journal of Business Research	Interviews and Literature

5.12 Sampling and Respondent Screening

This research focuses on customers' experiences of interacting with brands' automated technology (chatbots); hence, customers with prior experience interacting with a brand or service provider's chatbot were the population of interest. Quota sampling was adopted as the sampling method for the survey. Quota sampling is defined as a non-probability sampling method in which researchers create a sample involving individuals that represent a population (Stockemer al., 2019). Researchers choose these individuals according to specific traits or qualities. The respondents of the survey had to meet the following criteria: (1) To be consumers of at least one of the following brands/service providers: Amazon, H&M, Vodafone and O2 and (2) To have interacted with a chatbot belonging to Amazon, H&M, Vodafone or O2. The chatbots used for the survey (quantitative) phase differ from the chatbots used for the in-depth interviews (qualitative) phase of the study. The change was made because Asos and Sky Scanner discontinued the use of their chatbots prior to the commencement of the quantitative phase of the study. Brands and service providers frequently discontinue use of their chatbots to make improvements or if they are considered to be inefficient (Fauzia, 2021). As a result, H&M and O2 were used for the survey instead of ASOS and Sky Scanner. The retail brand Amazon was chosen because it accounts for 34% of all UK online sales (Statista, 2021) and H&M because it is a fast fashion provider with strong online and offline presence (192 physical stores in the UK) (Pymnts, 2021). With regards to service providers, mobile network providers were chosen, considering that 84% of UK (adult) consumers have a smartphone. According to Statista (2022), O2 is the second leading mobile network service provider with a market share of 19%, followed by Vodafone with a market share of 16%. As such, these two service providers were chosen for the study. These retail brands and service providers were chosen because their chatbots match the definition presented in Chapter 1. In addition, these chatbots were chosen as they are cross-sectional, carry out similar tasks and are an initial customer touchpoint when customers visit the website of the brands/service providers. Lastly, as mentioned in section 5.4 these chatbots are easy to locate on the brand's/ service provider's website, which is not the case for some brands and service providers that seem to make it challenging to locate their chatbots.

To ensure that the survey was administered to the relevant sample, the researcher input two initial screening questions, as illustrated in Figures 5.2 and 5.3. The respondents were automatically disqualified if they selected 'No' for question 6. In addition, the respondents were disqualified from the survey if they selected 'None of the above' in question 7.

Figure 5.2 Screening Question 1



6. Have you ever interacted with a chatbot belonging to your chosen brand or service provider during a past service encounter?

Chatbots are also known as digital assistants, virtual assistants or conversational agents. In simpler terms, chatbots are not human.

Yes

No

Figure 5.3 Screening Question 2



7. Select the brand or service provider that the chatbot you interacted with during your service encounter belongs to.

Amazon

H&M

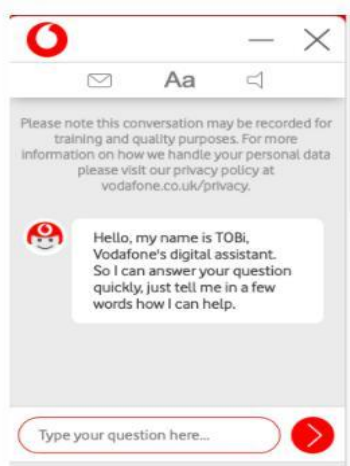
Vodafone

O2

None of the above

Following these initial screening questions, a final screening question (see Figure 5.4) was presented. This question focused on the respondents' recall of the chosen brand or service provider's chatbot. If the customer could not recall the appearance of the chosen brand's chatbot, the respondent was disqualified from the survey.

Figure 5.4 Screening Question 3



8. Please confirm if the image shown when you selected your chosen brand or service provider is similar to what you saw when you used their chatbot.

Yes

No

The researcher made use of a research institute to obtain the relevant sample for the study. The sample initially consisted of 800 respondents. A quota of 200 respondents per brand was put in place; thus, there were 200 respondents each for Amazon, Asos, Vodafone and O2. However, 64 surveys were incomplete and invalid, bringing the overall sample to 736 respondents. Of the 736 respondents, 198 (27%) were Amazon customers, 191 (25%) were H&M customers, 176 (24%) were Vodafone customers and 171 (23%) were O2 customers, demonstrating an almost equal split of the brands. The sample size is an important consideration in any research study. The 'financial, managerial and statistical issues' are taken into consideration when determining the sample size to be used (Beehr et al., 2022, p. 194). While a large sample size may help reduce sampling error, a balance needs to be achieved with the increased costs and time involved in the data collection phase (Braun et al., 2021).

5.13 Methodological Limitations

The mixed-method approach adopted within the current thesis presented two limitations. The first was associated with skills and resources. Timans et al. (2019) assert that mixed-method.

research requires researchers to possess a broad range of research skills that exceed purely qualitative and quantitative skills. In addition, researchers need to have an experience in mixed-method research (Uprichard and Dawney, 2019). However, the researcher had no prior experience in conducting mixed-method research prior to the current thesis.

The second limitation experienced was time related. The researcher experienced delays during data collection. As a result, the timeline for each stage of data analysis had to be revised. According to Anguerra et al. (2018), when conducting sequential research, the right amount of time is required to collect and analyse the data for the first phase of data collection prior to beginning the collection of the data for the second phase of the research. In addition, sufficient resources are needed to facilitate the collection of the two datasets within a short period (Uprichard and Dawney, 2019).

5.14 Research Ethics

When conducting research, it is essential for the researcher to collect data ethically and consider the privacy of the sample population (Davies et al., 2020). On this basis, the researcher was responsible for ensuring that the correct steps were followed in conducting ethical research. First, an ethical approval application to conduct the research was completed by the researcher and submitted to the Ethics Committee within the Department of Marketing at the University of Strathclyde. There were no objections presented by the Ethics Committee; thus, ethical approval was granted. Therefore, this research was conducted in line with the Ethics Committee approval provided by the University of Strathclyde.

There were issues that had to be considered for data collection. With regards to the in-depth interviews, the first issue was seeking consent for voluntary participation in consumer-related interviews. To achieve this, the researcher presented each of the 12 informants with a participant information sheet with the following details: the title of the study, an introduction to the researcher, the purpose of the research, what would be expected of the informant, why they had been selected to take part in the research, who would have access to the information and how the data would be stored. The participants were asked to provide a signature at the bottom of the participant information sheet to prove their consent to take part in the study (see Appendix 4). At the beginning of the interviews, the participants were reminded that they would be audio-recorded during the interview and that they could terminate the recording at any point during the interview. In addition, the participants were reminded that they could terminate the interview at any point. Moreover, the identities of the informants were not revealed to ensure privacy and

confidentiality. The identities of the informants were only known by the researcher. With regards to the online survey, an additional participant information sheet was presented at the beginning of the survey (see Appendix 5). Participation in the survey was voluntary and participants had the freedom to discontinue the survey if they felt the need to. The survey was administered online by a UK-based research panel called QuMinds. The identities of the participants were unknown to both QuMinds and the researcher, as participants were coded using numbers. Therefore, this research was conducted in line with the Ethics Committee of the University of Strathclyde.

5.15 Conclusion

This chapter presents a discussion of the research philosophy and its importance. Doing so enables the researcher to outline the philosophical grounding of this research. Following a review of the different philosophical approaches, the researcher chose to adopt the pragmatic philosophical stance. In addition, this chapter provides an extensive discussion and justification for the selected research design of the study, which consists of mixed-method SED. This approach is most suitable for addressing the outlined research objectives. Thereafter, the chapter provides insight into the processes followed for conducting the semi-structured interviews, along with the convenience sampling procedures. Subsequently, the chapter outlines the processes used for designing and administering the online survey while discussing the quota sampling procedure followed for the survey. Lastly, the limitations of the mixed-method approach are presented, along with the ethical considerations of the current research.

Chapter 6

Exploratory Research Findings and Conceptual Development

6.1 Introduction

The preceding chapter outlined the philosophical grounding of the current research, together with the mixed methodological approach adopted in the current study. This chapter presents the findings obtained from the exploratory in-depth interviews and addresses the first research objective of the current thesis. Specifically, the findings provide insights into the characteristics of chatbots that influence value co-creation and/or value co-destruction, as well as how and if customers experience value co-creation and/or value co-destruction when interacting with brands' chatbots. The findings of the exploratory in-depth interviews presented in this chapter provide the basis of the theoretical framework to be tested.

Considering the findings presented in this chapter, the researcher concludes the chapter by illustrating a proposed theoretical model for the study and presenting the hypothesis to be tested in the quantitative phase of the research.

6.2 Exploratory In-Depth Interview Findings

The exploratory research was carried out to ensure parsimony and comprehensiveness (Saunders et al., 2016). The use of the exploratory in-depth interviews enabled the researcher to explore how and if customers experience value co-creation or value co-destruction when interacting with brands' automated technology during service encounters while generating insights into the characteristics of the brand's chatbots that influence value co-creation and/or value co-destruction during the service encounter. The results of the exploratory in-depth interviews will be presented in the subsections below.

6.2.1 Instantaneous Support (Social Presence)

The first emergent theme is instantaneous support. Dutot (2013) suggests that brands' use of interactive technologies enable value co-creation as they facilitate two-way interactions and exchange between a firm and its customers. Therefore, chatbots fall into the category of interactive technologies as they facilitate dyadic interactions between a firm and its customers.

Chatbots convey high levels of automated social presence because they respond instantly and are always available to provide customers with support. Van Doorn et al. (2017, p. 44) develop the concept of 'automated social presence', which is 'the extent to which machines (e.g. robots)

make consumers feel that they are in the company of another social entity'. Automated social presence has been of great importance within virtual environments with focal actors, whether they are controlled by humans or machines (Oh et al., 2018). Previous research has shown that social presence is linked with various positive communication outcomes, including attraction and persuasion (Lee et al., 2013). Hassanein and Head (2007) find that social presence is positively related to enjoyment, trust and perceived usefulness of an online shopping website, leading to greater purchase intentions. In addition, Lee et al. (2013) find that high levels of social presence predict attraction towards a physically embodied agent (i.e. a robot). More recently, Caic et al. (2018) investigate the role of socially assistive robots (i.e. robots with a high social presence) in value networks. Taking an elderly person's perspective, it defines robot roles according to their value co-creating/destroying potential for the elderly user (i.e. focal actor) while acknowledging the consequences for a network of users around the elderly (i.e. network actors). The focal actors evaluated that the social presence/contact of the robot can have value co-creating and value co-destroying potential. When the informants were prompted about what aspects of their interaction they enjoyed the most with the chatbot, several stated that they valued how the chatbot was always available to provide support:

For me, it's important that I can speak to Tobi at any time. He is always there to help me every time I need some assistance from Vodafone, even late at night. (P2)

The chatbot co-creates value for the customer by offering increased support at the convenience of the latter, as the customer may interact with the chatbot at any time of the day. The sense of belief that the chatbot is always present to assist the customer in the resolution of any issue adds value to the customer. In turn, the informants added that they enjoyed how quickly the chatbots responded:

I also like how quickly Tobi replies to me and gets things done. (P2)

I knew it was a chatbot because it gave really quick responses to my questions, which I quite liked. (P3)

In this case, a chatbot co-creates value for the customer as it responds instantly to the customer's questions. According to Zhang et al. (2018), a fast response to customer concerns

reflects a firm's professionalism, competence and caring, which are dimensions of service quality linked to customer satisfaction.

Customers' wait time during service encounters is often treated as inferior to the core service experience. However, it is often the first touchpoint in the sequence of experiences that the customers have with a firm (Dixon and Verma, 2009; McLean and Frimpong, 2017) and a key aspect of service quality. Verhoef et al. (2009) state that customers expect service representatives to be responsive and willing to help in a timely manner. One participant stated:

Time is another thing. If I need a refund, I don't want to jump through hoops and loops to get it. I just want the process done as quickly as possible, and the chatbot definitely helps me do that without any trouble. (P10)

Efficiency. Tobi gets me to where I need to get the issue resolved much faster than their automated telephone system or going into the store. (P2)

I think I tried to phone Asos once, and it was a disaster because I was kept on hold for ages. I'll never do that again. The chatbot was pretty cool because, again, it responds instantly. (P3)

A key feature of chatbots that creates value for the customer is that they reduce the time a customer will spend completing a task during a service encounter compared with the customer going into the store or contacting customer service via telephone. This is in accordance with McLean and Wilson (2016), who posit that a complimentary feature of live chat is the ability to reduce the length of waiting time. Moreover, customers are sensitive to the wait time in online and virtual environments. Thus, customers who have to wait longer than expected often have a negative service experience (McLean and Wilson, 2016; Hong et al., 2013), which could potentially lead to value co-destruction (Verlye, 2015).

However, rapid service delivery alone will not create positive co-creation value if the service does not meet the customers' quality expectations (Zhang et al., 2018). Good service quality is considered to be the key requirement for meeting the customers' expectations and delivering.

the promised service. Customers are motivated to actively engage in value co-creation on the basis that service quality is guaranteed and improved (Huang and Rust, 2018).

6.2.2 Informational Benefits (Information Quality)

The second emergent theme is *informational benefits*. The participants mentioned that chatbots provide customers with the right information to answer their queries or achieve the end result. The findings reveal that information as a resource plays a key role in both value co-creation and value co-destruction processes. This is in line with Yi and Gong's (2013) value co-creation dimensions. The characteristics of the online and virtual environment set both limits and possibilities of customer activities and knowledge (Quach and Thaichon, 2017; Gummerus, 2010; Campbell et al., 2013), which become a key reason for customers seeking and giving information. Previous research has revealed that the inappropriate use of information, as well as incorrect information, can lead to value co-destruction (Quach and Thaichon, 2017). An informant highlighted how they would stop speaking to the chatbot if it gave them incorrect information:

I would quickly close the chatbot option if it gave me one wrong result or took me one way that I didn't want to go. So, for me, what's most important is for it to lead me to my desired end result. And you know, if it's taking me somewhere else, I'll stop using the chatbot right away. (P1)

In the above case, where the chatbot is giving the customer incorrect information or guiding them to the wrong place, the chatbot co-destructs value for the customer as it does not aid the customer in achieving their end goal.

Service-related benefits are key drivers for customers to engage in value co-creation. Thus, information-seeking is an important customer participation behaviour (Chuang and Chen, 2015). Yi and Gong (2013) state that customers seek information during the value co-creation process for two main reasons. First, information-seeking reduces the customers' uncertainty and enables the customer to understand and control the co-creation environment better. Second, information-seeking enhances the customers' ability to master their role as co-creators in the value co-creation network. Therefore, when a customer uses a brand's chatbot to attain certain information or achieve a specific goal, and the chatbot provides the customer with the correct

information and guides them to the right place to achieve the result, it can be said that the customer experiences value co-creation. The informants stated:

Either way, Tobi, the chatbot, can either solve the issue or get you to the place you need to be to get the issue solved, which makes him more efficient than speaking to somebody on the phone, where you're going to be consistently put on hold and face other issues like line connectivity and listening to annoying music. (P2)

I definitely get a resolution to the problem more quickly, and if not, then I'm directed to the right place almost immediately. (P10)

The customer experiences value co-creation when the chatbot aids the customer in achieving their end result by presenting the customer with the correct information. Truel et al. (2013) assert that one key function of a web-based live chat facility is to provide customers with information that is relevant to their query. This is also the case for chatbots, as they are embedded in the live chat facilities of some service providers, particularly at the beginning of the service encounter. Information that is current, clear, complete, accurate, relevant and reliable is believed to be of high quality (Guo et al., 2012).

6.2.3 Enhanced Personalisation

The third emergent theme is enhanced personalisation. However, the customer needs to actively participate in the value exchange and creation process before personalisation may occur. Using technology for service delivery sets boundaries on how value can be co-created (Breidbach and Maglio, 2016). Customers gain from co-creating and interacting with the service provider during the service encounter (Prahalad and Ramaswamy, 2004). However, in the context of chatbots, the customer's co-creation may become a challenge and require a greater level of skill and effort. For example, when a customer is using a retail chatbot, upon being acknowledged by the chatbot, the chatbot will ask the customer to type in what they would like to purchase. Some individuals will put more effort into making sure they use the right language to ensure the chatbot understands what they need. Moreover, if a return needs to be processed via the chatbot, the chatbot will give the customer guided instructions on the process, which might require the customer to concentrate more to ensure that they achieve their end result. Therefore, the success of value is co-created depending on whether the participant

actively participates in the value co-creation process during the service encounter. An informant shared:

It was quite a simple conversation, really. I just gave the chatbot my criteria for the flights, and it sent me different options, sort of like a menu. Once it had my criteria, I was mostly clicking on the different options it gave me. (P1)

In this case, the customer experiences value co-creation by interacting with the chatbot because the customer actively participated in the value co-creation process by entering the criteria for flights into the chatbot. Once the customer did so, the interaction became seamless and was considered by the informant to be simple, which enhanced the possibility of value co-creation.

Through identifying customer needs and preferences, digital technologies can add human-like features to frontline service technology (Van Doorn et al., 2017; Fan et al., 2015). Glushko and Nomorosa (2013) describe five different situations that include encounters between a customer and a service provider and compare them to human-to-human encounters, whereby a service provider is a machine. They outline the potential of information that machines can use to offer customers a more personalised service. Other scholars highlight that novel automated technologies offer a growing opportunity for service personalisation while capitalising on the benefits of service automation (Rabbit et al., 2015; Glas et al., 2017). The informants mentioned that the chatbots they used were able to quickly identify what they needed through personalisation:

Judging from the interactions I have had with other companies, I'd say the Amazon chatbot is very good at figuring out quickly what you're talking about. When I open the chatbot, it already knows which product I might have a problem with. Sometimes, with other brands, you spend a lot of time trying to get them to figure out what it is that you're talking about. (P6)

The customer experiences value co-creation in the above case because the chatbot has personalised the service experience for the customer by anticipating which product the customer is talking about when they say they have a problem with an item. Not surprisingly, various commentators acclaim the vast future potential for engaging customers through automated service interactions (Foster et al., 2017; Hollebeek et al., 2017). Chatbots play a

huge role in narrowing down and fine-tuning what the customer needs help with. Thus, when the customer gets connected to a human customer service representative, less time is wasted in trying to figure out or understand what the customer needs help with. The informants stated:

I think Tobi, the chatbot, is more efficient. He cuts out the junk in the middle of different prompts. There's no middleman with Tobi; he just gets you where you need to be or solves the issue. (P2)

Judging from the interactions I have had with other companies, I'd say the Amazon chatbot is very good at figuring out quickly what you're talking about. Sometimes, with other brands, you spend a lot of time trying to get them to figure out what it is that you're talking about. (P6)

Customers feel that the introduction of chatbots allows them to initiate the problem-solving process quicker with chatbots, thereby facilitating better engagement between the customer and the brand. One informant stated:

Now, I think it's easier to start a conversation because they have the chatbot, and they ask you exactly what product you are talking about based on your purchase history. Judging by the interactions I have had with other companies, I'd say the Amazon chatbot is very good at figuring out quickly what you're talking about. Sometimes, with other brands, you spend a lot of time trying to get them to figure out what it is that you're talking about. (P6)

6.2.4 Enhanced Perceived Control

The fourth emergent theme is enhanced perceived control. Customers wish to exercise a certain level of control at all stages of the service process (Guo et al., 2015). According to Lusch et al. (2007), when customers desire to exercise their control over the service process or the outcome, firms may gain a competitive advantage by offering them opportunities to be involved in service recovery co-creation. The use of chatbots by firms enables customers to actively participate in service recovery co-creation. For instance, if a customer receives the wrong product from Amazon, they may contact Amazon via the chatbot and notify Amazon that they

have received the wrong product. Amazon will then initiate a refund or process an exchange, thereby allowing service recovery to occur.

Customers are motivated to regain control over service recovery because they care about the economic gains rendered by control, as well as their social self-esteem in the relationship they have with the service provider (Guo et al., 2015). Perceived control has a positive influence on involvement, mood (Ward and Barnes, 2001), pleasure (Hui and Bateson, 1991), intention to behave (Guo et al., 2015) and satisfaction (Wathieu et al., 2002). With chatbots giving customers more control during the service encounter, the informants stated that they could take more time using the chatbot because they have more control and, thus, more satisfaction from using the chatbot. One informant stated:

In this scenario, I would rather use a chatbot than a human. You know, if it's a human, you don't want to mess about with the agent. If it's a chatbot, you can take more time using it, and you can change your results depending on a few things. With humans, there's a bit less patience, and when you're dealing with a human, you don't want to be a pain. (P4)

In this case, the customer experiences value co-creation since they have active control over their interaction with the chatbot, thereby achieving their end goal. In addition, given that the customer has control over the interaction with the chatbot, the service encounter becomes easier to navigate for the customer, thereby simplifying the service process, which consequently adds value to the customer. For first-time users of certain service providers, the chatbot is considered to be a beneficial customer touchpoint. The informants stated the following:

I've used Skyscanner many times, but if it's a first-time user, it would be very helpful to use a chatbot because, straight away, it would help that individual and give them accurate results. (P1)

If there was someone who wasn't as smart with technology, I would recommend using the chatbot because it's so easy to use, and you have more control over it. (P1)

The current findings highlight that greater perceived control when using a chatbot during a service encounter has the potential to co-create value for the customer. However, the

relationship between perceived control and value co-creation in relation to customers' use of chatbots in value-based service networks needs further examination. Previous research has yet to explore this relationship. Rompay et al. (2008) conduct a study in a retail setting. Their findings suggest that a reduction in a customer's perceived control because of a free movement restriction in a store may have a negative influence on shopping satisfaction. Chang (2008) reveals a positive relationship between increases in perceived control and increases in customer satisfaction with recovery efforts. Collier and Sherrell (2010) conduct a study where they identified a positive effect between control and satisfaction, mediated by exploration, transaction speed and trust in the service provider. The literature highlights the importance of perceived control in service encounters. Thus, the researcher assumes that a customer's perceived control plays a role in the value co-creation process, particularly when the customer is interacting with a firm's chatbot.

6.2.5 Consistency (Comprehension)

The fifth emergent theme is *consistency*. Although chatbots are generic, the informants mentioned that they are always the same in the sense that they always reply instantly to questions and punctuate and spell properly, which appeal to customers. An informant stated:

I really enjoy speaking to Tobi. He's always the same every time I speak to him. He greets me, doesn't make any spelling errors and always does what he's meant to do, which is to get me to the right place. (P2)

The findings also reveal that human customer service representatives are not always consistent in the way they punctuate and spell when interacting with customers. The participants felt that this influences the customer's belief of whether the human customer service representative will be able to understand what the customer needs. The informants stated:

I was just thinking, the chatbot probably understood what I needed better than the human element or at least could communicate it to me more effectively. (P8)

If the human representative I'm speaking to makes grammatical and spelling errors, I get lost in translation. It just adds confusion to a situation that is meant to be the quickest way to solve problems, so I prefer speaking with a chatbot. (P2)

Depending on the service context, chatbots may or may not exhibit the same level of understanding as humans. Moreover, human customer service representatives may not understand the customer, even though they are fully expected to comprehend the customer's problem. According to Castillo et al. (2020), the said incomprehension breeds feelings of frustration and anger in customers. Although customers may not expect the chatbot to fully resolve their problems or issues, they do expect that, at a minimum, it is able to understand the context of their question and provide adequate guidance, which is reflected in the findings of the current study.

Either way, Tobi, the chatbot, can either solve the issue or get you to the place you need to be to get the issue solved, which makes him more efficient than speaking to somebody on the phone where you're going to be consistently put on hold and face other issues like line connectivity and listening to annoying music. (P2)

Most importantly, chatbots will never give varying answers to separate customer enquiries as their responses are generic. Participants outline that human service representatives tend to have varying responses to customer enquiries. What Service Representative A advises to Customer 1 will not always be the same as what Service Representative B advises Customer 1, even though the enquiry remains the same. As a result, some informants mentioned that they prefer interacting with chatbots over human service representatives:

I suppose sometimes I feel a variance in service from Amazon. For example, my boyfriend and I were sitting together, answering questions from the chatbot and the human. With mine, when I asked what the benefits of Prime were, they were just like, 'Okay, we'll send you the answers to that in an email'. I never got an email. Meanwhile, my boyfriend got a totally different answer from his agent, and I can't really remember what it was, but surely you must have a script that you should be able to follow. Everybody should be able to just give the same answer for the same question; there shouldn't be a variance. They should just be like, 'Okay. Here are five benefits of Prime' rather than 'Okay, just wait for an email that you're never going to get'. (P7)

Service encounters where customers and employees blame each other create a communication gap that leads to co-destruction of value (Kashif and Zarkada, 2015).

One participant outlined that this variance in service delivery by human service representatives led to a text argument between themselves and the human service representatives that left them feeling extremely frustrated, which, in turn, led to the customer experiencing value co-destruction:

I spoke to an Amazon agent two weeks ago about initiating an exchange even though the guarantee on the item had expired, and they had said it wouldn't be a problem. Then, the day I was ready to do so, I spoke to another Amazon human agent, and they told me they wouldn't be able to process the exchange. It was pretty frustrating, and it became a text argument between me and the customer service representative. I had to send them screenshots of the previous chat for evidence. I felt like I had done something wrong even though I was entitled to this exchange. (P8)

6.2.6 Irreplaceability of Humans (Comprehension and Empathy)

The sixth emergent theme is the *irreplaceability of humans*. The findings outline that the human element of the service interaction process is still valued by some customers. Reih (2010) suggests that given the vast amount of information available to customers in online and virtual environments, there is no real gatekeeper over the quality of information customers acquire in these settings. As a result, customers are left in a situation where they are exposed to poor-quality information. Customers seek clarification or additional information from other settling sources, such as service employees (Metzger and Flanagin, 2013). As highlighted by the findings, customers often acquire the relevant information they seek when using chatbots to obtain product- or service-related information. However, they may also seek to verify these answers with human service representatives.

I suppose you know that a chatbot is just programmed to say certain things, so you can't always be fully convinced by the answer it gives. This is why sometimes, you seek validation from the human aspect of things because, obviously, it's limited. I mean, it is limited in what it can do, and each customer query is unique. (P7)

The findings highlight that customers are aware that the chatbot may only perform specific tasks. However, customers also acknowledge that using a chatbot is a step in the right direction to getting your problem solved eventually.

I wouldn't say the chatbot is a crazy factor that helps me do what I want because no matter what, I will have to speak to somebody. Again, it has to be something important for me not to get the right answer from the chatbot because sometimes, you only speak to a chatbot for things that are probably quick and some things that don't need a human to give a reply. I think the most important thing in terms of what you are talking about is that the chatbot is just a step on the right way. (P6)

Unlike human service representatives, chatbots display a lack of understanding when the progress of the interaction with the customer is poor (Castillo et al., 2020), for example, when the chatbot asks the customer several questions to figure out what the issue is or they provide the same answer to different questions. Castillo et al. (2020) conjecture that failure to comprehend a customer's enquiry leads to feelings of frustration and anger, which could potentially lead to an experience of value co-destruction. As a result, some customers automatically prefer to speak to human service representatives in certain service encounters or scenarios. An informant stated:

I would quickly close the chatbot option if it gave me one wrong result or took me one way that I didn't want to go. So for me, what's most important is for it to lead me to the end result. And, you know, if it's taking me somewhere else, I'll stop using the chatbot right away and speak to a human. (P1)

In this case, the customer experiences value co-destruction from their interaction with the chatbot because it does not comprehend what the customer needs; thus, the customer prefers to speak to a human. Moreover, the participants acknowledged that chatbots are limited in their functionality. Despite chatbots being driven by AI, they still give the customer limited assistance during service encounters. The findings indicate that some customers consider chatbots to be a suitable replacement for human service representatives in technology-mediated interactions when answering basic and straightforward questions. However, they are considered incompetent and generic when it comes to addressing more detailed service-related issues. An informant stated:

Sometimes, you can say I'm looking for flights from London to Harare, but the chatbot might not necessarily ask if you want a stopover somewhere. It will just give you what you asked for. It doesn't customise or go the extra mile the way a human would do. I suppose it doesn't really meet the need for when I want a tailored journey, whereas with a human, you tell them, 'Look, I want to go from London to Harare, but I want to go through Dubai first, then I want to go to Harare. Then from Harare, I want to go to Dubai and back', and they know exactly what you want. (P5)

Castillo et al. (2020) suggest that such functionality issues are completely down to the service provider. Functionality issues are perceived to result from the unavailability of specific chatbot features, which is the responsibility of the service provider.

6.2.7 Personal Interaction (Empathy)

The final emergent theme is **personal interaction**. This refers to the interpersonal relations between customers and employees (Breidbach and Maglio, 2016). Linked to the dimensions of service quality, along with environment quality and outcome quality, personal interaction is emphasised as functional quality (Kaarremo and Helkkula, 2018), which, in turn, influences value co-creation (Castillo et al., 2020). Functional quality consists of various elements that characterise the nature of relationships, including reliability, trust, support, cooperation, flexibility, commitment, friendliness, courtesy and respect. Accordingly, value co-creation is considered to take place in a social setting (Breidbach and Maglio, 2016). According to Castillo et al. (2020), the more congenial, pleasant and positive the social environment, the more likely customers are willing to engage in value co-creation.

Previous research has explored the personal interaction aspect of AI during service encounters. Webster and Sundaram (2009) suggest that the failure of some services to convey care and empathy for customers reduces customer satisfaction, suggesting that AI may be an unsuitable FLE replacement. Rafaeli et al. (2017) explore the role of AI in emotionally charged service encounters (i.e. funeral services, wedding planning and medical testing) and highlight that AI may not be a suitable replacement for humans in this setting. Meanwhile, Delcourt et al. (2017)

suggest that a human frontline employee may convey respect and appreciation for those customers who might feel offended, insulted or uncomfortable. In cases where AI is implemented in these services, AI is considered insincere and artificial (Robinson et al., 2020).

The aforementioned literature suggests that customers value dealing with humans over AI-driven technologies during service encounters; however, the findings of the current research suggest otherwise. This difference could be due to the fact that the chatbots used in the current study are in retail settings, where interactions are not emotionally charged. One participant highlighted that they actually liked the fact that the interaction with the chatbot was impersonal:

No, I think with the expectation of where technology is going is based on the value of the purchase. In my case, it doesn't affect whether I am speaking to a chatbot or not. I actually prefer speaking to the chatbot because it's impersonal, so I'm fine with that. (P3)

Interestingly, one participant highlighted that they preferred speaking to the chatbot because it did not make small talk like a human frontline service employee:

Yeah, you don't really want that small talk with a human during the online chat, to be honest. You just want them to answer the question. I think when the human element comes in after the chatbot, it's just about, 'Okay, answer it as quickly and as clearly as you can. I don't need you to show any interest in my day; just answer my question. (P7)

The participant highlighted that they do not value the rapport built by the service employee during the chat, believing that it is superficial. Thus, customers prefer the chatbot because it is straight to the point. An informant stated:

I would say, to be honest, when I do need to speak to a human, I would rather they didn't engage in too much small talk because I think it just feels forced. If you were in a face-to-face service encounter—you know, I worked in customer service a while ago—you would have to do the whole 'Oh, what are you doing today?' But when you're on an online chat with a human agent, and they're like, 'Oh, how is your day today?' It's just so weird. So, I prefer the chatbot for being straight to the point.

Interestingly, the findings suggest that consumers experience value co-creation when interacting with chatbots even though they offer less personal interaction. This is a different perspective from the existing literature on the use of AI to replace human frontline employees in service encounters.

6.3 Theoretical Framework

As previously mentioned, this research makes use of exploratory in-depth interviews to ensure comprehensiveness (Saunders et al., 2016). The exploratory in-depth interview findings outlined demonstrate the nature of the customers' dyadic interactions with the brand or service providers' chatbots. The findings outlined instantaneous support (social presence), perceived control, informational benefits (information quality) and personalisation as the variables that have the potential to influence utilitarian value. This study focuses on utilitarian value and not hedonic value because chatbots are mostly used to provide customers with support and product-or service-related information (Atchison, 2020); thus, their functionality and efficiency are of greater importance for the current study. With this in mind, utilitarian value influences both value co-creation and value co-destruction. Most informants articulated that if the chatbot added functional value and was efficient in its job, they experienced value co-creation. Conversely, if the chatbot was inefficient and did not add value for them, they likely experienced value co-destruction.

Moreover, comprehension (consistency) and empathy (irreplaceability of humans and need for personal interaction) have the potential to influence customers' experience of value co-creation or value co-destruction. The respondents outlined that if the chatbot comprehended their needs and issues, their service-related issue was often addressed, resulting in value co-creation. The informants also mentioned that if the chatbot did not comprehend the customer's service-related issue, this bred feelings of frustration and anger, which, in turn, yielded value co-destruction. In addition, some respondents highlighted that the interaction becomes enjoyable if the chatbot is empathetic, which, in turn, results in value co-creation.

The findings also outlined that CBE is a consequence of value co-creation, which is in line with the research by Van Doorn et al. (2010). The informants stated that once they had experienced value co-creation, they would continue engaging with the brand. Conversely, some participants, namely, P10 and P12, stated that if they experienced value co-destruction from

interacting with the brand's chatbot on several occasions, they then ceased engaging with the brand as they found it frustrating to have their service-related issues unresolved.

6.4 Temporal Order

Creswell (2009) posits that temporal order is where one variable precedes another. Therefore, it may be argued that one variable influences another variable. In essence, this is when the independent variable influences the dependent variables, with potential moderating variables placed between them. The findings outline four independent variables, namely, social presence, interactivity, personalisation and information quality, which will be tested against the dependent variable, which is utilitarian value. Value co-creation and value co-destruction were outlined as outcome variables of utilitarian value. Two moderating variables, 'comprehension' and 'empathy' were identified from the exploratory research. The researcher believed that it was critical to include CBE as a consequence of value co-creation and value co-destruction in accordance with the research by Van Doorn et al. (2010). Moreover, the researcher thought it was relevant and in line with the CBE literature (Hollebeek et al., 2014; Van Doorn et al., 2010; Mollen and Wilson, 2010; Vivek et al., 2012) to include two variables, namely, continuance intention (with the chatbot) and brand re-usage intention, as outcomes of CBE. Including continuance intention to use the brands' chatbots offered novelty to the CBE literature. A table illustrating where the variables are derived is presented in Table 5.5 (Section 5.11.5).

6.5 Hypotheses

The framework suggests that four independent variables, namely, social presence, interactivity, personalisation and information quality, have a positive influence on customers' perceived utilitarian value of the chatbot. The model suggests that a high utilitarian value positively influences value co-creation, whereas a low utilitarian value results in value co-destruction. Moreover, the model proposes that a chatbot's high level of comprehension of the customer's service-related issue positively influences value co-creation, whereas a low comprehension results in value co-destruction. Similarly, a chatbot showing a high level of empathy (emotional understanding) towards the customer positively influences value co-creation, whereas a low level of empathy results in value co-destruction. Furthermore, the model suggests that customers' experience of value co-creation positively influences CBE. Conversely, customers experiencing value co-destruction negatively influences CBE. The model proposes that CBE positively influences brand usage intent and customers' continuance intention with the chatbot.

Finally, value co-destruction has a negative influence on customers' continuance intention with the chatbot.

6.5.1 Social Presence and Utilitarian Value

According to Lim et al. (2015), perceived social presence in the field of mediated interaction refers to the extent to which users perceive another human to be present in the mediated interface. Walter et al. (2015) conjecture that the perceived warmth of an interactional interface is called social presence. Short et al. (1976) define social presence as the extent to which an interface allows one to develop a personal connection with others that is similar to a face-to-face interaction. A more recent definition by Biocca et al. (2003) places emphasis on the psychological nature of social presence as an individual experience of connectedness and closeness to others and, thus, define the concept as a 'sense of being with another' (p. 456). The difference in the definitions becomes apparent when the associated measurements are taken into consideration. Short et al. (1976) refer to the aspect of perceived warmth with respect to an interactional interface. Meanwhile, Biocca et al. (2003) investigate the degree of interactivity and understanding of the actors involved in the interaction. As the research is related to customers' interaction with automated technology, specifically chatbots, customers often believe that they are interacting with a human when in fact, they are interacting with a chatbot. Therefore, the current research refers to Lim et al.'s (2015) definition of social presence because this definition focuses on users perceiving another human to be present in the mediated interface.

Gefen and Straub (2004) posit that social presence is used to understand how feelings of human contact may be established without actual human contact. Social cues, such as a human-like appearance, create a greater perception of social presence (Qiu and Benbasat, 2009). Once users perceive a technology to have high levels of social presence, they react to the technology as if it were a human, although they will be aware that they are interacting with a machine (Walter et al., 2015).

Perceived social presence has been found to be a key driver of purchase intention and satisfaction (Cyr et al., 2007), both of which are considered to be antecedents of value. Hassanein and Head (2007) identify that higher levels of perceived social presence for users interacting with a website lead to a positive attitude and greater trust towards the website, which is connected to the effectiveness of the website, which is, in turn, related to the utilitarian

benefits the website offers. Moreover, Cyr et al. (2007) identify a very strong relationship between perceived social presence and perceived usefulness.

In the current research, social presence is measured in relation to the customers' interactions with the brands' chatbots. The findings from the exploratory stage of the research outline that customers perceive some chatbots to have a high level of social presence as they communicate via text in the same way that humans do. In addition, they are always available to respond to customers, offering support at any time of the day or the night. On this basis, the following hypothesis is presented:

H1: The social presence of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.

6.5.2 Perceived Interactivity and Utilitarian Value

According to McMillan and Hwang (2002), the concept of interactivity is defined as customers' perceptions of how well an interface interacts with them in relation to two-way communication, the level of user control and timely feedback. Previous research has highlighted that interactivity may be categorised into three distinct facets, namely, features, processes and perceptions (Song and Zinkhan, 2008; Mollen and Wilson, 2010; Florenthal and Shoham, 2010). Feature-based interactivity involves the presence of varied interface features (e.g. chat rooms, email links and instant messaging) (McMillan, 2005). Interfaces that possess such features offer users greater levels of interactivity (Silica et al., 2005; Jensen et al., 2014). In addition, message type, response time and number of clicks are acknowledged as features and are thus considered to make up feature interactivity. Conversely, process-based interactivity focuses on the customer's actions while interacting with the interface as opposed to the specific function of the interface (Kim et al., 2012). McMillan (2005) highlights that the use of functions in some interfaces, including personalised home pages, chat rooms and search engines, are examples of process-based interactivity. However, perception-based interactivity adopts a different approach and is defined as the extent to which customers perceive interactivity when they use an interface (Mollen and Wilson, 2010). Zhao and Lu (2012) suggest that customers' perceptions of interactive features in an interactional interface are efficient in measuring the level of interactivity. Accordingly, Wu (2005) reinforces that a perception-based approach is

better than a feature-based model in assessing the influence of interactivity on users' attitudes towards interactional interfaces.

Therefore, the current research adopts a perception-based perspective to gain a better understanding of how customers perceive the interactivity of a chatbot during a service encounter. Previous research has highlighted that perceived interactivity is multi-dimensional (McMillan and Hwang, 2002; Chen and Yen, 2004; Akrimi and Khemakhem, 2014). Perception-based interactivity consists of perceived two-way communication, control and responsiveness (Song and Zinkhan, 2008; Cyr et al. 2009; Zhao and Lu, 2012). These three are in line with the findings from the exploratory stage of the current research as they were outlined by participants during the interviews.

Liu and Shrum (2002) posit that customers have a utilitarian goal when they seek information on a product or service during an encounter with the firm. Kim et al. (2013) outline that customers acknowledge that travel websites are a useful source of information for planning travel. They conclude that visiting travel websites offer the customer utilitarian value because the website helps customers achieve their functional objective. Similarly, customers have a utilitarian goal when they use a brand or service provider's chatbot during a service encounter, which could include collecting information related to a product (i.e. how to process a return) or service they are consuming (i.e. how to order a replacement debit card for their bank account). Therefore, the assumption that perceived interactivity is likely to have a positive influence on utilitarian value is made. On this basis, the following hypothesis is presented:

H2: The perceived interactivity of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.

6.5.3 Personalisation and Utilitarian Value

Personalisation is an integrative research field that consists of marketing, human-computer interface, computer science and information systems (Salonen and Karjaluto, 2016; Krishnaraju et al., 2015). Ho and Bodoff (2014) define personalisation as an automated process that involves the identification of customers, the collection of customer behavioural records, the analysis of customer preferences and the tailoring of content to suit each customer. Tam and Ho (2005) suggest that personalised interfaces generally make use of a personalisation

agent to provide the relevant content in the correct format to the right customer at the right time. Ho et al. (2011) define a personalisation agent as a suite of software used to generate personalised content for a customer.

Personalisation has been adopted within service channels to add value to the customer (Zhang et al., 2011) and build strong customer relationships (Ho and Bodoff, 2014). However, marketing scholars still question the value potential of personalisation despite its common adoption. There is a possibility that the effectiveness of personalisation does not only rely on the technology that customers interact with during the service encounter but also on the personalisation agent and strategy implemented by the brand or service provider. Li (2016) suggests that understanding the value-creating potential of personalisation is a key research issue. Previous research has focused on customer-related issues regarding personalisation, such as the value or risk potential of personalisation (Zhang et al., 2011; Li, 2016; Benlian, 2015; Guo et al., 2016; Pasppas et al., 2014; Chau et al., 2013), the influences of personalisation on consumer behaviour (Ho and Bodoff, 2015; Tam and Ho, 2005; Bodoff and Ho, 2015) and consumers' responses to personalisation (Choi et al., 2014; Bleir and Eisenbeiss, 2015).

The current thesis focuses on customers' use of a brand's automated technology during service encounters. Automated technologies previously implied a degree of standardisation in terms of service delivery and processes (Kurzweil, 2005). However, automated technologies in today's world offer a growing opportunity for service personalisation (Hollebeek et al., 2017). Given that chatbots are a novel type of automated technology, it is essential to examine the impact of a chatbot with a level of personalisation on value, specifically utilitarian value.

Huang and Zhou (2018) state that the basic rule of personalisation is to provide the customer with the right content in the right format at the right time, all of which are linked to utility. In addition, the findings from the exploratory stage of this research outline that the chatbots offering a high level of personalisation are efficient in narrowing down a customer's problem during a service encounter. On this basis, the following hypothesis is proposed:

H3: The personalisation of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.

6.5.4 Information Quality and Utilitarian Value

DeLone and McLean (2003) propose an information system success model highlighting that information quality is a critical component to the success of an information system. As outlined by participants in the exploratory research findings, a key feature of chatbots is to provide customers with information that is relevant to their queries. Guo et al. (2012) posit that information is considered to be of high quality when it is current, relevant, clear, accurate, reliable and complete. However, customers have access to a vast amount of information during service encounters, and there is no real gatekeeper over the quality of the information. Thus, customers are left in a situation where they are exposed to information that is of poor quality (Rieh, 2010). In such cases, poor information quality from the interface adds no value to the customer, and the customer then seeks support or clarification from service employees and even friends or family (Metzger and Flanagin, 2013).

The findings from the exploratory stage of the research reveal that customers perceive chatbots to be useful when they obtain the correct service-related information. Kim and Han (2011) examine the role of utilitarian and hedonic values and their antecedents in a mobile data service environment. Their findings reveal that information quality positively influences utilitarian value. As previously highlighted, chatbots offer customers instantaneous support that allows them to access or confirm the information they are seeking in relation to a product or service. Customers' use of chatbots during service encounters often has a utility goal in mind, which adds value for the customer when this goal is achieved. On this basis, the following hypothesis is presented:

H4: The information quality of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.

6.5.5 Utilitarian Value, Value Co-Creation and Value Co-Destruction

Scholars have suggested that the concept of perceived value constitutes both utilitarian and hedonic values (Day and Cai, 2014; Babin et al., 1994; Kim et al., 2012; Kim and Han, 2011). Ry et al. (2010) define utilitarian value as the actions customers should undertake to obtain the functions and economic benefits of buying a product efficiently. Hedonic value is defined as the enjoyment or fun of the transaction process, such as finding products at a lower price than expected. The current thesis focuses on utilitarian value because chatbots are mostly used to

provide customers with support and product or service-related information. Therefore, their functionality and efficiency are of greater importance for the current study. Customers have a utilitarian goal when they seek information related to a product or service (Liu and Shrum, 2002).

Based on the findings of the exploratory interviews, chatbots are perceived to offer customers a convenient way of seeking and receiving customer support, as well as searching for product-or service-related information. According to Venkatesh et al. (2012), human-computer interaction research has highlighted the role of utilitarian value in influencing the adoption of technology, which, in turn, may influence value co-creation. According to Vargo and Lusch (2004), co-created value refers to the level of perceived value created by virtue of such interactions that go beyond the value obtained from consuming the service alone (Prahalad and Ramaswamy, 2004). Given that participants from the exploratory interviews perceive chatbots to offer utilitarian value, it is imperative that the researcher examine the link between utilitarian value and value co-creation. On this basis, the following hypothesis is presented:

H5: High utilitarian value from brands' chatbots has a positive influence on value co-creation.

Existing literature appears to fall short of illuminating the impact of utilitarian value and value co-destruction. However, to address the gap in the literature, the findings from the exploratory interviews of this research reveal that customers experience value co-destruction when they perceive a chatbot to be inefficient or useless during a service encounter (i.e. of low utilitarian value). Therefore, it is imperative to examine the impact of low utilitarian value on value co-destruction. On this basis, the following hypothesis is presented:

H6: Low utilitarian value from brands' chatbots results in value co-destruction.

6.5.6 Comprehension, Value Co-Creation and Value Co-Destruction

According to Wirtz et al. (2018), comprehension refers to the service employee's cognition of the customer's problem or query. Service efficiency is enhanced when the customer's problem is understood from the beginning of the service encounter (Huang and Rust, 2018). The findings of Castillo et al. (2020) indicate that customers believe that chatbots face various comprehension challenges during service encounters. The study suggested that chatbot demonstrate a lack of cognition when the progress of the chat is not great, such as

when the chatbots ask repetitive questions to comprehend the customer's issue or when they continuously provide the same answer for different questions.

According to Wirtz et al. (2018), incomprehension breeds feelings of frustration and anger in customers. Although customers may not expect the chatbot to fully resolve their problems or issues, they do expect that, at a minimum, it is able to understand the context of their question and provide adequate guidance. These findings are reflected in the exploratory stage of the current research. Castillo et al. (2020) suggest that customers experience both emotional and resource loss when the chatbot exhibits incomprehension issues. On this basis, the following hypotheses are presented:

H7. A high level of comprehension shown by the brands' chatbot positively influences value co-creation.

H8. A low level of comprehension shown by the brands' chatbot will result in value co-destruction.

6.5.7 Empathy, Value Co-Creation and Value Co-Destruction

Empathy refers to an entity's capacity to step into an individual's life and assume motivations, beliefs and intentions from the individual's actions, as well as experience similar feelings and bodily sensations (Prestin and de Waal, 2002; de Vignmeont and Singer, 2006). According to Docety and Moriguchi (2007), empathy enables the engagement of cognitive, emotional and somatic processing. Nummenmaa et al. (2008) define emotional empathy as the ability to experience another character's emotional state as distinct from their own. This may lead to sympathy and willingness to help the individual in need (Kupferberg et al., 2011). According to Rodie and Kleine (2000), emotions are a vital customer resource in the value-creation process. Value emerges from both emotional and mental experiences and does not exist in an object, a product or possession but instead, in a consumption experience (Heinonen et al., 2010).

Technology-infused service interactions have been observed to inhibit empathy (Misselhorn, 2009; MacDorman et al., 2013). However, little is known about the impact of empathy on value co-creation or value co-destruction. In a study by Castillo et al. (2020), customers perceive chatbots as substitutes for human employees and expect them to offer some sympathy and personalisation during the interaction. The findings also highlight that customers want the chatbots to understand and feel what they are feeling. As a result, customers experience relational resource loss, which is linked to value co-destruction, when they believe that their interactions with chatbots lack empathy (Castillo et al., 2020). On this basis, the following hypotheses are presented:

H9: A high level of empathy shown by the brands' chatbot positively influences value co-creation.

H10: A low level of empathy shown by the brands' chatbot results in value co-destruction.

6.5.8 Value Co-Creation, Value Co-Destruction and CBE

According to Van Doorn et al. (2010), value co-creation is perceived as one of the antecedents of CE or as both an antecedent and consequence of CE (Vivek et al., 2012). This dual standpoint on the relationship between CE suggests that value co-creation either drives CE or results from CE. This perspective is highlighted by previous empirical and conceptual studies. In a study conducted by Hollebeek (2013), the findings outline a curvilinear relationship between customer value co-creation and CE for utilitarian brands, indicating that CE increases when customer value co-creation increases. The second stream of research by Verhagen et al. (2015) on CE and customer value co-creation relationships explores customer value dimensions as the drivers of CE. The findings highlight the determinants of CE intentions in virtual customer environments, including cognitive benefits that are linked to utilitarian value (access to information, knowledge and feedback), personal integrative benefits (firm recognition and peer recognition) and hedonic benefits (altruism and self-expression).

Interactions between customers and brands are the locus of value creation (Quach et al., 2019; Rosenthal et al., 2017; Gronross et al., 2011). Therefore, brands should involve customers in the service delivery process to co-create value (Prebensen et al., 2017; Buonincontri et al., 2017). To achieve this interaction, firms must provide resources that enable customers to take part in value co-creation (Ul Islam et al., 2017; Gronroos, 2019). Traditionally, online brand communities and social media platforms have provided the ideal environments for these interactions to take place (Mishra, 2019; Ferreira, 2017). However, with the existence of novel automated technologies, such as chatbots and virtual assistants, customers can have a more prominent role in the value co-creation process (Castillo et al., 2020).

With support for value co-creation from brands, customers are likely to invest their resources of time, effort and money (Gronroos and Voima, 2013; France et al., 2018). Consequently, the customers' engagement with the brand is enhanced (Quach et al., 2019; Zhang et al., 2017). In line with service logic, value co-creation in the user sphere can lead to CBE in the joint sphere (Pires et al., 2015; Gronroos and Voima, 2013). On this basis, the following hypothesis is presented:

H11: Value co-created through brands' chatbots has a positive influence on CBE.

Laud et al. (2019) define value co-destruction as an interactional process between focal actors (i.e. technology, customers and employees) that results in a decline in at least one of the focal actor's well-being. For example, a customer may experience a decline in well-being during a service encounter when they interact with a brand's chatbot, resulting in value co-destruction. The findings from the exploratory interviews reveal that customers experiencing value co-destruction when using a brand's chatbot may become so frustrated that they disengage with the service provider and engage with an alternative service provider. On this basis, the following hypothesis is presented:

H12: Value co-destroyed through brands' chatbots has a negative influence on CBE.

6.5.9 CBE and Brand Re-usage Intention

According to Zhou (2013), brand re-usage intention refers to a customer's intent to continue using a service in the post-adoption phase. Montzemi and Qahri-Saremi (2015) state that re-usage intention differs from the customers' intention to use the service during the pre-adoption phase. Therefore, re-usage intention is a distinct form of behavioural intention that comes in many forms, such as purchase intention, recommendation intention and feedback intention (Fang, 2016).

Vivek et al. (2012) emphasises the importance of CE on customers' brand re-usage intention. They provided an analysis of studies conducted in relation to CE and repurchase intention,

suggesting two disparate perspectives of its explanation. The first perspective outlines that CE is composed of a group of activities that improve customers repurchase behaviours and strengthen customers' relationships and commitment to the brand. The second perspective highlights that CE is a measure of the strength of customer involvement with a brand in a joint knowledge exchange process.

The literature highlights that CBE influences brand re-usage intention. In particular, CBE developed during interactions with brands and other users in online environments positively influences re-usage intention (Blasco-Arcas et al., 2016; Van Doorn et al., 2017). High levels of CBE with a brand's chatbot are likely to generate favourable attitudes towards the brand, resulting in purchases from the brand. In line with existing CBE literature that has examined the impact of CE and brand re-usage intention (Van Doorn et al., 2010; Hollebeek et al., 2014), the following hypothesis is presented:

H13: CE fostered through brands' chatbots has a positive influence on customers' brand re-usage intention.

6.5.10 CBE, Value Co-Destruction and Continuance Intention

Li et al. (2006) state that continuance intention refers to the users' intention to continuously use an interactional interface. Continuance intention is largely influenced by the intensity or attachment they feel towards the interface (Tsai and Huang, 2009). In line with this, Racherla et al. (2012) state that stickiness with an interactional interface is formed when the user has strong connections towards the interface, and such strong connections increase the customer's intention to spread positive word of mouth. For example, in a relationship between a user and a chatbot, the user is likely to show continuous use of the chatbot if they perceive an efficient interaction and commitment to the brand or service provider's chatbot.

Engaged customers are likely to take part in stimulating interactions that result in pleasant emotional experiences during service encounters, leading to continuous usage of the interface (Wha et al., 2020). In addition, the cognitive effort (i.e. engagement) required to generate and process the messages being exchanged during the service encounter requires spending extended periods on the interface (Hsu and Liao, 2014). The current research proposes that CBE has an influence on the customers intention to continue using the chatbot. These propositions contribute to the CBE literature

H14: CBE fostered through brands' chatbots has a positive influence on customers' continuance intention with the chatbot.

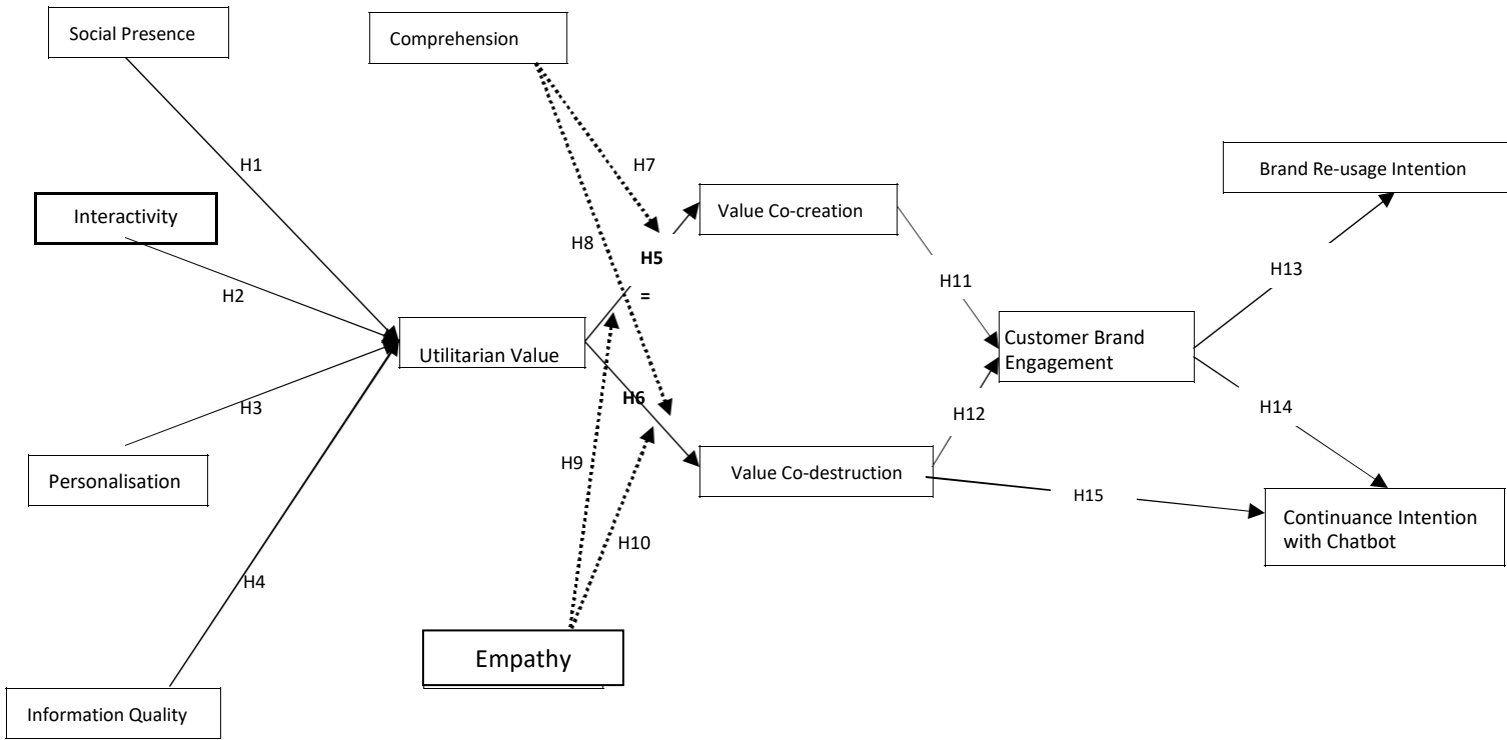
Brands should drive consumers' continuance intention to revisit their apps as retaining existing consumers is cheaper than acquiring new consumers (Francioni et al., 2022) In service, continuance intention is viewed as the consumers' loyal relationship and their intention to continue using the service provider (Gao et al., 2018). For this research continuance intention refers to the customers intention to continue using the service provider's chatbot. Like mobile apps, chatbots are widely integrated into brands' customer journeys. Moreover, the study's exploratory interview findings reveal that once customers have a negative experience when using a brands' chatbot they avoid using the chatbot in future interactions with the brand. To this end, measuring the impact value co-destruction has on continuance intention is critical. On this basis the following hypothesis is presented:

H15: Value co-destroyed through brands' chatbots have a negative influence on the customers' continuance intention with the chatbot.

6.6 Conceptual Framework

The conceptual framework presents a model illustrating the variables that influence CBE when customers interact with a brand or service provider's chatbot during service encounters. Moreover, the model illustrates the CBE outcomes that occur as a result of customers' interactions with the chatbot. Lastly, the theoretical framework provides a representation of the relationships the quantitative phase of the research will examine.

Figure 6.1 Conceptual Framework



6.7 Conclusion

The current chapter presents the findings obtained from the exploratory in-depth interviews. The findings highlight the key characteristics of brand chatbots that lead to customers experiencing either value co-creation or value co-destruction during service encounters. In addition, the exploratory findings offer in-depth insights into how and if customers experience value co-creation or co-destruction when interacting with a brand or service provider's chatbot. The key characteristics include 'instantaneous support' (social presence), 'perceived control', 'informational benefits' (information quality), 'enhanced personalisation', 'consistency' (comprehension), 'irreplaceability of human beings' and the need for personal interaction (empathy and comprehension).

Moreover, the chapter presents the theoretical framework to be tested for the quantitative phase of the research. The framework suggests that four independent variables, namely, social presence, interactivity, personalisation and information quality, have a positive influence on customers' perceived utilitarian value of the chatbot. The model suggests that high utilitarian value positively influences value co-creation, whereas low utilitarian value results in value co-destruction. Moreover, the model proposes that the chatbot's high level of comprehension of the customer's service-related issue positively influences value co-creation, whereas low comprehension results in value co-destruction. Similarly, chatbots showing a high level of empathy (emotional understanding) towards the customer positively influence value co-creation, whereas a low level of empathy results in value co-destruction. Furthermore, the model suggests that customers' experience of value co-creation positively influences CBE. Conversely, customers' experience of value co-destruction negatively influences CBE. The model proposes that CBE positively influences brand re-usage intention and the customers' continuance intention with the chatbot. Lastly, value co-destruction is considered to have a negative influence on customers' continuance intention with the chatbot.

Chapter Seven

Quantitative Findings and Data Analysis

7.0 Introduction

The current chapter introduces the research findings obtained from the quantitative phase of the research. In addition, the chapter presents the numerous statistical techniques used to investigate the relationships between the variables outlined in Chapter 5. The statistical analysis software SPSS version 27 was used to conduct the initial statistical analysis.

First, descriptive statistics were presented to provide an analysis of the sample and basic descriptions of the data gathered. Second, reliability tests were conducted to validate the measurement scales of the variables used for the study. Finally, the data were checked for normality.

Confirmatory factor analysis (CFA) was conducted using AMOS Graphics 27 to examine the validity of the variables within the study. Thereafter, a structural model was specified and estimated. Afterwards, two separate structural models, one for value co-creation and one for value co-destruction, were used to test the relationships hypothesised in the previous chapter.

7.1 Sample Descriptive Analysis

As mentioned in Chapter 5, the data obtained were from 800 customers of brands or service providers in the UK, including Amazon, H&M, Vodafone and O2. Justification for the selection of these brands and service providers was also presented in Chapter 5. Following data cleansing and the removal of responses that contained missing values, the sample consisted of 736 valid responses.

7.1.1 Gender

Table 7.1 presents the sample of 736 respondents comprising 42% males, 57% females and 1% who identified as other.

7.1.2 Age

Table 7.1 presents the distribution of the respondents with respect to age. The 18–24 age group represented the largest proportion of the sample (32%). The 25–33 age group represented 26% of the sample, while those aged under 18 accounted for 18%. The 35–44 age group made up

15% of the sample, while those aged between 45–54 represented 8% of the sample. Those aged between 55–64 made up the smallest proportion of the sample, with only 1%.

7.1.3 Education Level

The participants’ level of education may affect how they answer the set questions (De Franzo, 2020). As shown in Table 7.3, 48% of the respondents had a university degree, making up the largest proportion of the sample. Approximately 25% of the sample completed secondary school, and 25% had a college degree. Only 1% of the 736 respondents had no formal qualifications.

7.1.4 Technological Confidence

The current research focuses on the use of brands’ technology; thus, it is appropriate to gain insight into how confident and experienced the respondents are at using technology. The results in Table 7.4 show that most respondents were very experienced or experienced in using technology. Among the total sample, 32% indicated that they were very experienced in using technology, while 47% indicated they were experienced users of technology. Approximately 20% indicated that they were average users of technology, and only 1% of the total sample indicated that they were not experienced users of technology.

7.1.5 Choice of Brands and Service Providers

Table 7.5 presents the distribution of the brands and service providers among the 736 respondents. Among the 736 respondents, 198 (27%) were Amazon customers, 191 (25.0%) were H&M customers, 176 (24%) were Vodafone customers and 171 (23%) were O2 customers. The distribution demonstrated an almost equal split of the brands.

Table 7.1 Summary of Descriptive Statistics (1)

Gender	Frequency	Percentage %
Male	308	42%
Female	422	57%
Other	6	1%
Total	736	100%
Age	Frequency	Percentage %
Under 18	133	18%
18–24	234	32%
25–34	192	26%
35–44	110	15%

45–54	58	8%
55–64	7	1%
Total	100	100%
Education Level		
Education Level	Frequency	Percentage %
University Degree	349	48%
College Diploma (HND/HNC)	187	26%
Secondary School	192	25%
No Formal Qualification	8	1%
Total	736	100%
Technological Confidence		
Technological Confidence	Frequency	Percentage %
Very Experienced	233	32%
Experienced	348	47%
Average User	152	20%
Not Experienced	3	1%
Total	736	100%
Choice of Brands		
Choice of Brands	Frequency	Percentage %
Amazon	198	27%
H&M	191	26%
Vodafone	176	24%
O2	171	23%
Total	736	100%

7.1.6 Last Use of Chatbot

Table 7.2 illustrates when the respondents last made use of their chosen brand's chatbot prior to the study. Data indicate that among the 736 respondents, 234 (32%) used the chatbot over 1 month before the study, while 208 (28%) used the chatbot 1–2 weeks prior. In addition, 141 (19%) respondents last used the chatbot 2–3 weeks prior and 79 (11%) respondents last interacted with their chosen brand's chatbot 3–4 weeks prior. Lastly, the smallest proportion of respondents (74, 10%) used the chatbot within 1 week of the study.

7.1.7 Chatbot Identification

Table 7.2 presents data highlighting how the respondents were able to identify that they were interacting specifically with a chatbot as opposed to a human agent in their service encounters with their chosen brands. Most of the respondents (581 out of 736, 78%) indicated that they knew they were speaking to a chatbot because 'it identified itself as a chatbot, a virtual assistant or a digital assistant'. A total of 51 (7%) respondents indicated that they were aware they were engaging with a chatbot because of the 'robot icon displayed as a profile picture', while 50

(7%) acknowledged that it was a chatbot because ‘it replied instantly (within nanoseconds)’. In addition, 25 (4%) respondents were able to identify the chatbot because of the use of ‘simplified language with no grammatical errors’, while 17 (2%) indicated that they identified the chatbot through its act of asking the respondents ‘continuous sets of questions with options to choose from’. Lastly, 12 (2%) respondents identified the chatbot because it responded with ‘different options to choose from (like a menu)’.

7.1.8 Reasons for Using a Chatbot

Table 7.2 presents data indicating the respondents’ reasons behind the use of chatbots during service encounters with their preferred brands. Among the 736 respondents, 435 (58%) indicated that they used the chatbot ‘to obtain information quickly’. A total of 116 (16%) respondents highlighted ‘to raise a query or solve a problem’ as their reason for using a chatbot. Moreover, 78 (11%) respondents indicated that they used the chatbot ‘to process a refund/return or exchange’, while 74 (10%) highlighted ‘to locate information I cannot find on the website’. Furthermore, 22 (3%) respondents indicated that they used the chatbot ‘to get a personalised deal or experience’, while 11 (2%) highlighted ‘to connect me with a human customer service representative’.

Table 7.2 Summary of Descriptive Statistics (2)

Last Use of Chatbot	Frequency	Percentage %
Under 1 Week	74	10%
1–2 Weeks	208	28%
2–3 Weeks	141	19%
3–4 Weeks	79	11%
Over 1 Month	234	32%
Total	736	100%
Chatbot Identification	Frequency	Percentage %
It identifies itself as a chatbot or virtual assistant.	581	79%
It has a robot icon as its picture.	51	7%
It replies instantly within nanoseconds.	50	7%
It uses simplified language with no grammatical errors.	25	4%

It asks me continuous sets of questions with options.	17	2%
It responds to me with different options to choose from.	12	1%
Total	736	100%
Reason for Using a Chatbot	Frequency	Percentage %
To locate information I cannot find on the website.	74	10%
To obtain information quickly.	435	59%
To process a refund, return or exchange.	78	11%
To raise a query or solve a problem.	116	16%
To get connected to a human service representative.	11	2%
To get a personalised deal or experience.	22	3%
Total	736	100%

7.2 Reliability Analysis of Scales

Hair et al. (2014) state that it is essential that the scales used are reliable prior to presenting the mean average variables to be included in the quantitative study. Pallant (2013) defines reliability as the extent to which a scale generates consistent results when recurrent measurements are conducted. Tabachnick and Fidell (2010) suggest that one of the main concerns associated with the reliability of a scale is its internal consistency. This refers to the degree to which all the items within the scale measure the same fundamental construct. According to Hair et al. (2014), a scale's reliability may be realised by scrutinising the correlation between scores from items within the scale. If the correlation is high, then the researcher may conclude that the scale provides consistent results, making it reliable.

Pallant (2013) identifies Cronbach's alpha as the most popular reliability test. The Cronbach's alpha coefficient of a scale should exceed 0.7, thereby ensuring reliability. However, Malhotra (2004) suggests that a Cronbach's alpha below 0.6 or less would be a cause for concern. Accordingly, Cronbach's alpha was calculated for each scale within the current study using 12 variable scales in total. These 12 variable scales have been adopted from the literature and the in-depth interviews, which included social presence, interactivity, information quality, personalisation, utilitarian value, value co-creation, value co-destruction, CBE, empathy,

comprehension, chatbot continuance intention and brand usage intention. Table 7.3 presents Cronbach's alpha coefficients for determining the reliability of the measurement scales used within this study. As shown in Table 7.3, Cronbach's alpha was used to examine the reliability and internal consistency of 54 scale items. In accordance with Pallant (2013) and Tabachnick and Fidell (2007), the Cronbach alpha values presented in Table 7.3 are above the critical value of 0.6. Therefore, it is evident that the 12 scales, along with their scale items, have internal consistency and are reliable for the purpose of this study.

Table 7.3 Reliability Test of Measurement Scales

Variable	Measurement Scale	Source	Cronbach's Alpha
Social Presence	<ul style="list-style-type: none"> • The chatbot acknowledged me right away. • The chatbot replied to me instantly. • My interactions with the chatbot are similar to those with a human. • During my communication with the chatbot, I felt like I was dealing with a real person. • I communicate with the chatbot in the same way I communicate with humans. 	McLean and Frimpong, 2019	0.769
Interactivity	<ul style="list-style-type: none"> • I was in control of my interaction with the chatbot. • I had some control over the content the chatbot provided me with. • I could communicate with the chatbot by directly asking questions about the brand or its products if I wanted to. • I could communicate in real time with the chatbot. • The chatbot had the ability to respond to my specific questions quickly and efficiently. • The chatbot was talking back to me consistently when I asked questions. 	Liu and Shrum, 2003 Song and Zikhan, 2008	0.869
Information Quality	<ul style="list-style-type: none"> • The information provided by the chatbot was current. • The information provided by the chatbot was complete and comprehensive. • The chatbot provided accurate information for my needs. • The information provided by the chatbot was easily understandable. 	Flanigan and Metzger, 2007 Guo et al., 2012	0.863
Personalisation	<ul style="list-style-type: none"> • I value the chatbot as it is personalised for my usage experience preferences. • I value the chatbot as it acquires my personal preferences and personalises the service and products to suit me. 	Ameen et al., 2020	0.892

	<ul style="list-style-type: none"> • I value the chatbot as it gives me personalised feedback. 		
Utilitarian Value	<ul style="list-style-type: none"> • Using the chatbot is a convenient way to manage my time. • Completing tasks with the chatbot makes my life easier. • Completing tasks with the chatbot fits my schedule. • Completing tasks with the chatbot is an efficient use of my time. 	McLean and Frimpong, 2019	0.916
Value Co-Creation	<ul style="list-style-type: none"> • Interacting with the chatbot provided me with relevant information. • Interacting with the chatbot provided me with an efficient way to manage my time. • Interacting with the chatbot enabled me to undertake my service experience securely. • The chatbot made the brands' customer service support more accessible and easier to find. • Interacting with the chatbot added value to my experience. 	Pena et al., 2014	0.896
Value Co-Destruction	<ul style="list-style-type: none"> • When I interact with the chatbot, it provides me with incomplete information. • When I interact with the chatbot, I do not trust it fully. • When I interact with the chatbot, it makes mistakes. • The chatbot does not meet my service expectations. • The chatbot does not serve my service-related needs. 	Jarvi et al., 2018	0.919
Empathy	<ul style="list-style-type: none"> • There is an element of human touch during my interaction with the chatbot. • The chatbot comprehends the urgency of the situation. • The chatbot diffuses my feelings of anger, frustration, stress and concern. 	Castillo et al., 2020	0.930
Comprehension	<ul style="list-style-type: none"> • The chatbot always understands my questions during the interaction. • The chatbot does not repeat its answers or questions. • The chatbot does not give the same answers to different questions. • The chatbot asks the right number of questions to understand my issue. • The interaction with the chatbot is fluid. • The chatbot provides a reply that is relevant to my problem. 	Castillo et al., 2020	0.823

CBE	<ul style="list-style-type: none"> • Using the brand’s chatbot gets me thinking about the brand. • Using the brand’s chatbot stimulates my interest in the brand. • I feel positive when I use the brand’s chatbot. • I feel good when I use the brand’s chatbot. • Using the brand’s chatbot makes me happy. • I am proud to use the brand’s chatbot. 	Hollebeek et al., 2014	0.893
Brand Usage Intention	<ul style="list-style-type: none"> • It makes sense to use my chosen brand instead of any other brand, even if they are the same. • Even if another brand has the same functionality as my chosen brand, I will prefer to use my chosen brand. • If there is another brand as good as my chosen brand, I prefer to use my chosen brand. • If another brand is not different from my chosen brand in any way, it seems smarter to use my chosen brand. 	Yoo and Donthu, 2001	0.847
Continuance Intention	<ul style="list-style-type: none"> • I plan to keep using the brand’s chatbot to address my service-related needs. • I intend to continue using the brand’s chatbot in the future. • I expect my use of the brand’s chatbot will continue in the future. 	Hepola et al., 2020	0.818

7.3 Normality for Model Fit

According to Hair et al. (2014), similar to any multivariate analysis, it is important to consider the normality of the data prior to measuring the model for goodness-of-fit. The normality of data was assessed in SPSS using the skewness and kurtosis test. Table 7.4 illustrates the z-score skewness and kurtosis values. According to Baumgartner and Homburg (1996), the z-score skewness and kurtosis values should fall within -2 and $+2$ for data to be distributed normally. A negative ($-$) kurtosis score indicates that the distribution may be flat with several cases in the ‘tails’, whereas a positive ($+$) kurtosis indicates few cases in the tails. In addition, negative ($-$) skewness z-scores indicate an accumulation of cases to the left, whereas positive ($+$) z-scores indicate a pileup of cases to the right.

Table 7.4 Normality Analysis for Data Distribution

Statistic	Skewness		Kurtosis	
	Statistic	Std Error	Statistic	Std Error
Social Presence	-0.118	0.090	-0.209	0.180
Interactivity	-0.443	0.090	0.365	0.180
Information Quality	-0.559	0.090	-0.68	0.180
Personalisation	-0.598	0.090	0.154	0.180
Utilitarian Value	-0.865	0.090	0.589	0.180
Value Co-creation	-0.704	0.090	0.383	0.180
Value Co-destruction	-0.415	0.090	-0.005	0.180
Customer Brand Engagement	-0.175	0.090	-0.727	0.180
Empathy	-0.270	0.090	-0.358	0.180
Comprehension	-0.232	0.090	-0.125	0.180
Brand Usage Intention	-0.180	0.090	-0.156	0.180
Chatbot Continuance Intention	-0.373	0.090	-0.036	0.180

Table 7.4 shows that the sample data are distributed with normality, enabling the researcher to confidently conduct the CFA and assess the CFA model fit before testing the structural model.

7.4 Common Method Bias Test

According to Chang (2020), common method bias may impact the reliability of study items and data validity. To evaluate common method bias, the Common Latent Factor test was conducted. Researchers assert that this method is appropriate to identify whether common method bias occurs in empirical studies (Ashfaq et al., 2020; Chen and Jiang, 2021). Moreover, the common latent factor test is widely applied in social science research (Chang, 2020; Serrano et al., 2018). Using the common latent factor test, the researcher compared the standardised regression weights of all the items for the models with and without common latent factor. The differences identified from the regression weights were not significant (<0.200), thus confirming that common method bias was not an issue within the data (Serrano, 2018). Subsequently, the Harman's one factor test was conducted. Following this approach, there is no common method bias if the value of a single construct is less than 50% of the variance (Gaksi, 2017). Consequently, the results indicated that the value of a single construct was 27.357%, confirming the nonexistence of common method bias.

7.5 Validity Tests

Face validity is an integral first step in assessing the validity of the data (Hair et al. 2014). Face validity refers to the subjective assessment of variables to be included in a totalled scale by examining the ratings of expert judges or the pre-tests of subpopulations. To assess the face validity, the researcher asked co-researchers to examine the scale items. Additionally, a pre-test was also carried out to ensure that the measures were sufficient. Subsequently the test for the average variance extracted (AVE) by a particular construct was conducted. The AVE is the mean variance extracted for items loaded onto a construct and indicates convergence (Hair et al., 2014). AVE is the total of the item loadings divided by the number of items. Hair et al. (2014) that this value should ideally be no less than 0.5, however if the value is greater than 0.4 the value can be accepted. The AVE values indicated in Table 7.5 are greater 0.4 for all the factors, thus indicating adequate convergence (Hair et al., 2014). Thereafter, a novel and alternate approach referred to as the Heterotrait-Monotrait ratio (HTMT) of correlations was used to determine discriminant validity. Recent social science studies have identified this as an efficient method to determine discriminant validity (Henseler et al., 2021, Iankova et al, 2019; Voorhees et al., 2016; Henseler et al., 2015). Specifically, the HTMT is the ratio of the arithmetic mean of the heterotrait–heteromethod correlations and the geometric mean of the

arithmetic means of the monotrait-heteromethod correlations. Researchers suggest the HTMT value should be below 0.85 to establish discriminant validity (Henseler et al., 2015; Voorhees et al., 2016; Franke and Sarstedt, 2019) while others recommend that the HTMT value should be below 0.90 (Teo et al., 2017). In accordance with this the HTMT values were all less than 0.85, thus indicating discriminant validity. Lastly, the test for composite reliability (CR), which assesses the internal consistency of a construct was conducted. Researchers suggest that CR should be 0.7 or higher, although 0.6 and above may be acceptable if other indicators are good (Hair et al., 2014). In accordance with this Table 7.6 presents a CR for all the factors. The CR values for all the factors in Table 7.6 are above 0.6, thus, composite reliability is established (Hair et al., 2014).

Table 7.5 Values for Convergent and Discriminant Validity

Variable	Average Factor Loadings	Average Variance Extracted (AVE)	Square Root of AVE
Information Quality	0.751	0.564	0.751
Social Presence	0.635	0.403	0.634
Interactivity	0.678	0.460	0.678
Personalisation	0.664	0.441	0.764
Utilitarian Value	0.641	0.419	0.647
Empathy	0.761	0.580	0.762
Comprehension	0.728	0.529	0.727
Value Co-creation	0.637	0.637	0.798
Value Co-destruction	0.658	0.433	0.658
CBE	0.794	0.630	0.794
Continuance Intention	0.694	0.482	0.694
Brand Usage Intention	0.701	0.491	0.713

Table 7.6 Check for Composite Reliability

Variable	Sum of Measurement Error (<i>ME</i>)	<i>C + ME</i>	Composite Reliability <i>CR</i> C / (C+ME) CR > 0.60
Information Quality	0.649	2.690	0.631
Social Presence	0.534	3.507	0.848
Interactivity	0.568	2.733	0.792
Personalisation	0.577	2.568	0.776
Utilitarian Value	0.611	2.098	0.788
Empathy	0.525	2.810	0.810
Comprehension	0.714	2.606	0.726
Value Co-Creation	0.756	2.905	0.740
Value Co-Destruction	0.479	2.308	0.624
CBE	0.767	5.533	0.861
Continuance Intention	0.507	2.552	0.801
Brand Usage Intention	0.346	1.169	0.704

7.7 Checking for Missing Data

The online survey was administered by QuMinds, a research provider. QuMinds ensured that the survey would not be identified as complete if participants did not answer all the questions. In cases where respondents did not answer a question or some questions within the survey – these surveys were categorised as incomplete and excluded from the study. A total of 736 surveys were completed. On this basis, no missing data were identified within the sample of 736 respondents. In addition, the researcher checked for missing data using SPSS by sorting the data. No blank cells, rows or columns were identified during this process.

7.8 Check for Univariate and Multivariate Outliers

Managing data involves the critical process of identifying and deletion of outliers or inaccurate values (Hair et al., 2018). In accordance with (Tabachnik and Fidell, 2013) Z-score analysis was used to determine whether there were any outliers within the data. An absolute value of +/- 3.29 is used to identify outliers (Tabachnik and Fidell, 2013). In essence, a z-score above +3.29 or below -3.29 is an outlier. When checking for univariate outlier cases, the data were sorted in both ascending and descending order in SPSS to determine if there were any cases. The z-scores for all 12 variables were not greater than or less than the threshold value of ± 3.29 . Thus, no univariate outlier cases were present in the data.

Moreover, the data was checked for multivariate outlier cases. Three steps were followed in accordance with Hair et al., (2018) to check for multivariate outlier cases. Firstly, all of the variables were computed using SPSS. Thereafter, the Mahalanobis Distance was calculated along with Mahalanobis Distance probability. The data were sorted in both ascending and descending order in SPSS to determine if there were any multivariate outlier cases. Hair et al., (2018) assert that a case is a multivariate outlier if the probability is less than 0.001. The values identified all had a probability greater than 0.001. Thus, no multivariate cases were present in the data.

7.9 Confirmatory Factor Analysis

A CFA is appropriate for this research as the researcher has knowledge of the underlying latent variable structure based on the empirical research conducted and the literature review (Hair et al., 2014). While Exploratory Factor Analysis (EFA) is considered useful for the reduction of variables, it is also known for ignoring relevant variables (Watkins, 2018; Goretzko et al., 2021). In addition, when using EFA larger sample sizes yield larger correlations, thus an inaccurate representation of correlation is presented. Given the large sample size of this research EFA was not used. The CFA model helps the researcher determine the competence of model fit (goodness-of-fit). Thus, the CFA in this study outlines how and the extent to which the observed variables are linked to their underlying latent factors (Byrne, 2016). Specifically, the CFA is concerned with how much the observed variables are generated by the underlying latent constructs and, consequently, the strength of the regression paths from the factors to the observed variables (i.e., the factor loadings). Thus, a critical first step prior to the analysis of the structural model is to test the validity of the measurement model before testing and evaluating the structural model (Byrne, 2016).

According to Hair et al. (2014) the measurement model produced in SEM is evaluated like any other SEM model using a goodness-of-fit measure. If the measurement model is not valid, there would be little purpose in proceeding with the structural model. Schumacker and Lomax (2016) state that it is essential to test the measurement model before testing the structural model. Thus, once the measurement model is deemed valid (having goodness-of-fit), the researcher can have confidence in the results of the structural model (Byrne, 2016).

7.10 Goodness-of-Fit Indices

The current study considers a few goodness-of-fit indices to determine how well the model fits and to test the study's hypotheses. The goodness-of-fit indices examine the level of significance in terms of the difference between the estimated population covariance matrix (generated by the SEM) and the original sample matrix. Schumacker and Lomax (2016) suggest that the ideal situation would be for a very small non-significant difference, which would represent goodness-of-fit in the numerous goodness-of-fit indices.

The goodness-of-fit indices measure the fit of the model in multiple forms. According to Schumacker and Lomax (2016), there is no one fit index that serves as an exact criterion for testing either the measurement model or the structural model. Numerous researchers suggest reporting 3–6 indexes (Garsen, 2008; Tabachnick and Fidell, 2007; Pallant, 2013; Hair et al., 2014; Bryne, 2016). Accordingly, this study will assess the goodness-of-fit values of the Chi-

square test (CMIN), comparative index fit (CFI), normed index fit (NFI), standardised root mean square residual (SRMR), root mean square error of approximation (RMSEA) and root mean square residual (RMR). Table 7.5 outlines the suggested values for each of the goodness-of-fit tests and their corresponding references.

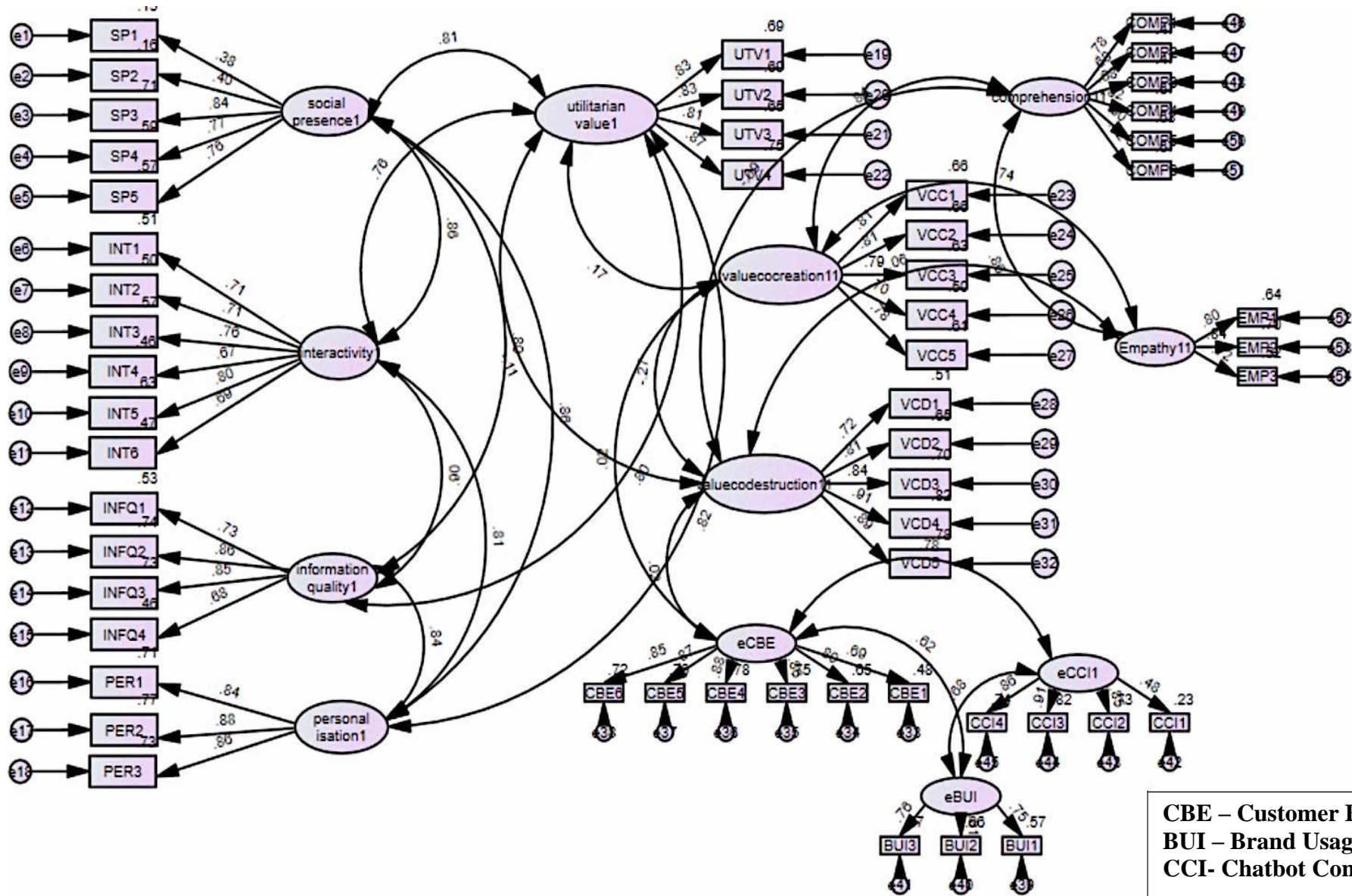
Table 7.7 Goodness-of-Fit Suggested Values

Fit Index	Recommended Value of Good Fit	Reference
Chi-square	$P > 0.5$	Bryne (2016)
CFI	≥ 0.90 ≥ 0.95	Bentler (1990) Hu and Bentler (1999)
NFI	≥ 0.95 Good fit ≥ 0.90 Acceptable fit	Bentler and Bonnett (1980)
SRMR	< 0.08	Hu and Bentler (1999)
RMSEA	≤ 0.5 Good Good fit $0.05 < RMSEA \leq 0.08$ Adequate fit $0.08 < RMSEA \leq 0.10$ Mediocre fit	Schumacker and Lomax (2016)
RMR	< 0.05 ≤ 0.08	Jorskog and Sorbom (1996)

7.11 Conceptual Measurement Model

The conceptual model was developed based on the variables emerging from the literature reviewed in Chapters 2, 3 and 4, as well as the findings obtained from the exploratory in-depth interviews. The conceptual model within the current study aims to test the relationships of social presence, interactivity, information quality and personalisation to the degree they influence utilitarian value. The conceptual model also aims to examine the extent to which utilitarian value influences value co-creation and value co-destruction. Moreover, the conceptual model examines the influence of the moderating variables, empathy and comprehension, on both value co-creation and value co-destruction. Furthermore, the model aims to assess the influence of value co-creation and value co-destruction on CBE. Finally, the model examines the influence of CBE on the customers' brand usage intent and the customers' continuance intention with the brands' chatbot. The influence of value co-destruction on the customers' continuance intention is also examined in the current conceptual model.

7.1 CFA Measurement Model



CBE – Customer Brand Engagement
BUI – Brand Usage Intent
CCI- Chatbot Continuance Intention

The measurement model shown in Figure 7.1 illustrates the correlations between each of the variables. The following series of tables illustrate the results of the CFA measurement model. The correlations closer to +1.0 indicate a perfect relationship (Hair et al., 2014). It is also important to look at the R^2 value, which is referred to as the correlations output within AMOS. According to Pallant (2013), values above 0.25 can be considered to constitute a large effect on social science. Table 7.7 illustrates the values of the squared multiple correlation output.

Table 7.7 shows that the squared multiple correlation values are all above 0.25. This indicates that each variable explains a high percentage of its variance, with the error variance explaining a lower percentage on most variables (Byrne, 2016).

Table 7.8 Squared Multiple Correlations Output

Variable	R^2 Value
Social Presence	0.436
Interactivity	0.523
Information Quality	0.616
Personalisation	0.737
Utilitarian Value	0.697
Value Co-creation	0.610
Value Co-destruction	0.694
Customer Brand Engagement	0.688
Brand Usage Intent	0.601
Chatbot Continuance Intention	0.628
Comprehension	0.585
Empathy	0.616

7.12 Model Fit Indices CFA

As mentioned in Section 7.41, the goodness-of-fit indices aim to evaluate the level of significance in the difference between the estimated population covariance matrix generated by the SEM and the original sample matrix (Schumacker and Lomax, 2016).

The values from the model fit indices for the CFA are presented in Table 7.8. Model fit tests are carried out to identify whether the model fits the data. Within the goodness-of-fit tests, the Chi-square test alone is considered unreliable because of its sensitivity to large sample sizes (Byrne, 2016). Thus, a significant Chi-square can often be excluded if other fit statistics show goodness-of-fit. In addition, Pallant (2013) posits that a model with medium to large sample

sizes can cause the Chi-square test to become significant. On this basis, the CFI, NFI, SRMR, RMSEA and RMR are reported.

Table 7.9 CFA Model Fit

Fit Index	CFA Goodness-of-Fit Value	Recommended Value of Good Fit
Chi-square	0.000	$P > 0.05$
CFI	0.907	≥ 0.90 ≥ 0.95
NFI	0.886	≥ 0.95 Good fit ≥ 0.90 Acceptable fit
SRMR	0.040	< 0.08
RMSEA	0.047	≤ 0.5 Good Good fit $0.05 < RMSEA \leq 0.08$ Adequate fit $0.08 < RMSEA \leq 0.10$ Mediocre fit
RMR	0.038	< 0.05 ≤ 0.08

7.13.1 Chi-Square Test

The results of the Chi-square test show a significant value, where $p = 0.000$. The second statistic to look at with regards to the Chi-square test is the CMIN value. Concurrently, this value is significant (CMIN = 5.65). However, as highlighted in Subsection 7.8, CMIN values are sensitive to larger sample sizes and can produce significant results with type II error, thereby rejecting the true model (Tabachnick and Fidell, 2010). In accordance with Bryne (2016), other reliable model fit statistics are reported in Table 7.8.

7.13.2 Comparative Fit Index

The CFI is a fit statistic that compares the existing model fit with a ‘null’ model, which assumes the latent variables in the model are uncorrelated with each other (Tabachnik and Fidell, 2007). As previously discussed, the CFI is a fit statistic often reported within the marketing literature

(Cadogan et al., 2002), as it is perceived as being robust under severe multivariate non-normality (Ping, 1995) and being a statistic least susceptible to sample size (Fan et al., 1999). As shown in Table 7.17, the CFI has a value range of 0–1, with a value > 0.90 representing a good fit (Bentler, 1990). However, Bentler and Ho (1999) suggest that researchers should adopt a more stringent value of 0.95. The CFI value reported in Table 7.8 for the measurement model is 0.907, representing a good fit.

7.13.3 Normed Fit Index

The NFI is often seen as an alternative to the CFI (Byrne, 2013). The NFI does not require Chi-square assumptions and reflects the proportion that the model is fit compared with the null hypothesis. Thus, an NFI value of 0.60 would suggest that the proposed model improves fit by 60% compared with the null model. According to Schumacker and Lomax (2016) and Bentler and Bonett (1980), the NFI should be 0.90 for an acceptable fit. The NFI shown in Table 7.8 is 0.886, showing an above-mediocre fit.

7.13.4 Root Mean Square Error of Approximation

According to Byrne (2013), the RMSEA is often regarded as one of the most useful fit indices. The RMSEA informs how well the model with unknown optimally chosen parameter values fits the population covariance matrix if it is available (Brown and Cudeck, 1993). However, the RMSEA favours more complex models than simpler models, which are subject to higher values. According to MacCallum et al. (1996), a value of 0.01 indicates excellent fit, between 0.01 and 0.05 indicate good fit and between 0.05 and 0.08 a mediocre fit. Despite the model in this study being subject to higher values due to its simplicity, the RMSEA is below the critical value of 0.05, having a value of 0.037.

7.13.5 Root Mean Square Residual

The RMR is the mean absolute value of the covariance residuals. Byrne (2013) suggests that a small RMR value indicates a better fit. Hu and Bentler (1999) suggest that the RMR should be ≤ 0.08 . However, Joreskog and Sorbom (1996) suggest that the RMR value should be < 0.05 for a good fit. The current study adopts Joreskog and Sorbom's (1996) more stringent value. The RMR in Table 7.8 for the CFA measurement model is 0.038, suggesting goodness-of-fit.

7.13.6 Standardised Root Mean Square Residual

The SRMR is considered an absolute measure of fit and can be defined as the standardised difference between the observed correlation and the predicted correlation (Hu and Bentler, 1999). Given that the SRMR is an absolute measure of fit, a value of 0 indicates a perfect fit. Hu and Bentler (1999) suggest that a value less than 0.08 indicates a good fit. The SRMR value for the measurement model in the current study is 0.040, which is below the critical value outlined by Hu and Bentler (1999).

7.13.7 Summary of Goodness-of-Fit Statistics for the Measurement Model

It is evident from the previous sections that four out of the six goodness-of-fit indices reported are above the critical values outlined: CFI (0.907), NFI (0.886), SRMR (0.040), RMSEA (0.047) and RMR (0.038). The CMIN was the only fit statistic that was able to produce a fitting model statistic with $p = 0.000$ and $CMIN = 73.06$. However, as previously highlighted in prior sections, the Chi-square test is sensitive to sample size and is often considered one of the least reliable fit statistics (Byrne, 2016) and can be disregarded should multiple other fit statistics suggest goodness-of-fit (Tabachnick and Fidell, 2010; Schumacker and Lomax, 2016). Therefore, the model is of a good fit, allowing the researcher to proceed with conducting the SEM.

7.14 Structural Equation Model Testing and Hypothesis Testing

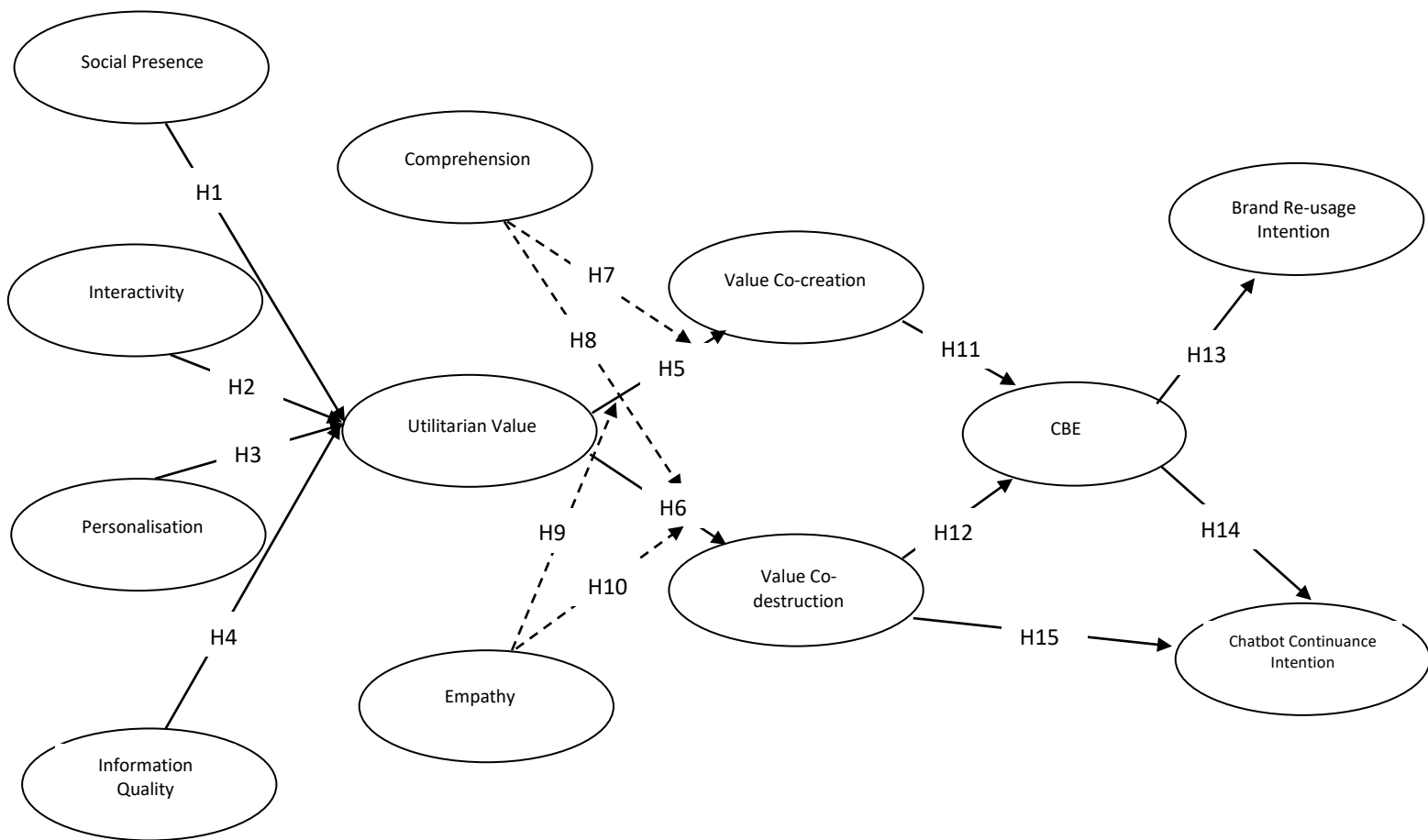
Now that the validity of the variable loading is understood and the measurement model produced a good fit, the researcher can proceed with evaluating the SEM.

SEM is a collection of statistical techniques that allow the researcher to analyse a set of relationships between one or more independent variables simultaneously (Tabachnick and Fidell, 2010). Byrne (2016) suggests that the casual relationships set out in the measurement model are transformed into a series of structural equations. These structural relations are capable of providing a clear conceptualisation of the theory under investigation. As with the CFA measurement model, the structural model was analysed using AMOS Graphics 26. The following section will outline the structural model and calculate the hypothesised relationships.

7.11.1 Model Hypotheses

The analysis from the measurement model indicated that no changes need to be made. Thus, the variables in Table 7.3 are applied for SEM. Given that no variables have been deleted and the good fit shows that no scale items have been deleted, we do not need to revisit the Cronbach alphas calculated in Table 7.3.

Figure 7.2 Hypothesised Model



The development of the hypothesised path model shown in Figure 7.2 was based on the previously reviewed literature in Chapters 2–4, the conceptual development in Chapter 6, and the exploratory findings in Chapter 7. A total of 15 hypotheses were proposed.

Table 7.10 Hypotheses

Hypothesis Number	Hypothesis Statement
H1	The social presence of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.
H2	The perceived interactivity of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.
H3	The personalisation of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.
H4	The information quality of brands' chatbots will have a positive influence on customers' perceptions of utilitarian value.
H5	High utilitarian value from brands' chatbots has a positive influence on value co-creation.
H6	Low utilitarian value from brands' chatbots results in value co-destruction.
H7	A high level of comprehension shown by the brands' chatbot positively influences value co-creation.
H8	A low level of comprehension shown by the brands' chatbot will result in value co-destruction.
H9	A high level of empathy shown by the brands' chatbot positively influences value co-creation.
H10	A low level of empathy shown by the brands' chatbot results in value co-destruction.
H11	Value co-created through brands' chatbots has a positive influence on CBE.
H12	Value co-destroyed through brands' chatbots has a negative influence on CBE.
H13	CE fostered through brands' chatbots has a positive influence on customers' brand re-usage intention.
H14	CE fostered through brands' chatbots has a positive influence on customers' continuance intention with the chatbot.
H15	Value co-destroyed through brands' chatbots has a negative influence on the customers' continuance intention with the chatbot.

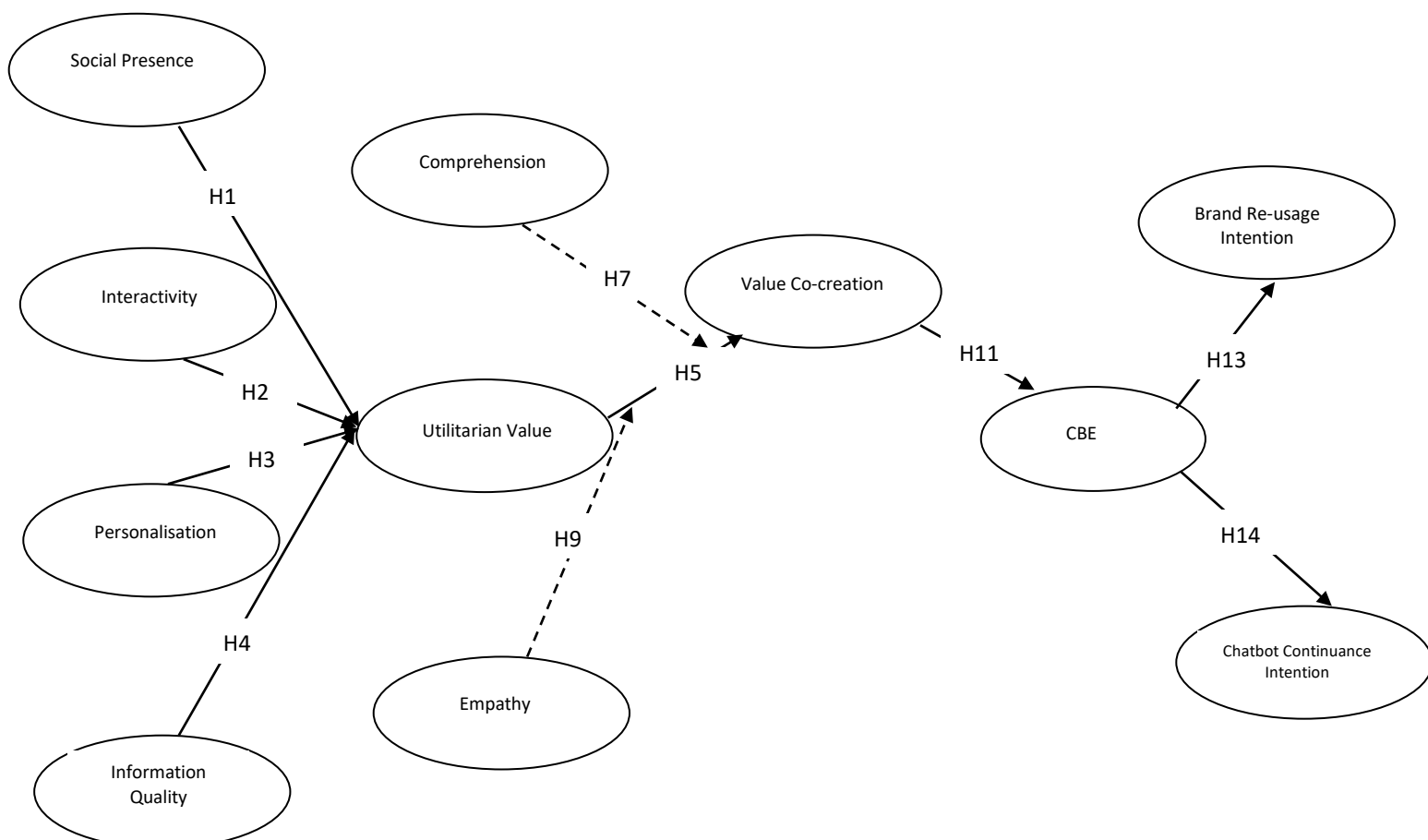
7.12 Justification for Two Separate Structural Models

In accordance with Anderson and Gerbing (1988) the researcher adopted a two-step approach towards structural equation modelling. Firstly, the initial measurement model was assessed for goodness fit using a pseudo chi-square test (Bentler and Bonnet, 1980) which was constructed from the chi-square value of the structural model. The pseudo chi-square statistic was significant, thus the initial structural model with value co-creation and value co-destruction did not have an acceptable fit. Significance suggests that the measurement model needs to be remedied (Anderson and Gerbing 1988). On this basis two separate structural models were tested. The first model was for value co-creation (Model 1), while the second was for value co-destruction (Model 2). This is also in accordance with a previous study that estimated two separate structural models (Mehmetoglu and Engen, 2011).

7.12.1 Value Co-creation Structural Model (1)

The first structural model presented is illustrated in Figure 7.3, which presents the value co-creation structural model (1).

Figure 7.3 Structural Model (1) Value Co-creation



7.12.2 Model Fit Indices Value Co-Creation Structural Model (1)

Table 7.11 presents the goodness-of-fit indices for the value co-creation structural model. The goodness-of-fit values for the structural model are discussed in relation to the recommended values of good-fit.

Table 7.11 Value Co-Creation Structural Model (1) Fit

Fit Index	Goodness-of-Fit Value	Recommended Value of Good Fit
Chi-square	0.000	$P > 0.05$
CFI	0.906	≥ 0.90 ≥ 0.95
NFI	0.947	≥ 0.95 Good fit ≥ 0.90 Acceptable fit
SRMR	0.071	< 0.08
RMSEA	0.015	≤ 0.5 Good Good fit $0.05 < RMSEA \leq .08$ Adequate fit $0.08 < RMSEA \leq 0.10$ Mediocre fit
RMR	0.024	< 0.05 ≤ 0.08

7.12.3 Chi-Square Test

The results of the Chi-square test show a significant value, where $p = 0.000$. However, as highlighted in Subsection 7.8, CMIN values are sensitive to larger sample sizes and can produce significant results with type II error, thereby rejecting the true model (Tabachnick and Fidell, 2010). In accordance with Bryne (2016), other reliable model fit statistics are reported in Table 7.11.

7.12.4 Comparative Fit Index

The CFI is a fit statistic that compares the existing model fit with a ‘null’ model, which assumes the latent variables in the model are uncorrelated with each other (Tabachnik and Fidell, 2007). As previously discussed, the CFI is a fit statistic often reported within the marketing literature (Cadogan et al., 2002), as it is perceived as robust under severe multivariate non-normality

(Ping, 1995) and a statistic least susceptible to sample size (Fan et al., 1999). As shown in Table 7.11, the CFI has a value range of 0–1, with a value > 0.90 representing a good fit (Bentler, 1990). However, Bentler and Ho (1999) suggest that researchers should adopt a more stringent value of 0.95. The CFI value reported in Table 7.11 for the measurement model is 0.906, representing an acceptable fit.

7.12.5 Normed Fit Index

The NFI is often seen as an alternative to the CFI (Byrne, 2013). The NFI does not require Chi-square assumptions and reflects the proportion that the model is fit compared with the null hypothesis. Thus, an NFI value of 0.60 would suggest that the proposed model improves fit by 60% compared with the null model. According to Schumacker and Lomax (2016) and Bentler and Bonett (1980), the NFI should be 0.90 for an acceptable fit. The NFI shown in Table 7.11 is 0.947, showing an above-acceptable fit (close to good fit).

7.12.6 Root Mean Square Error of Approximation

According to Byrne (2013), the RMSEA is often regarded as one of the most useful fit indices. The RMSEA informs how well the model with unknown optimally chosen parameter values fits the population covariance matrix if it is available (Brown and Cudeck, 1993). However, the RMSEA favours more complex models than simpler ones, which are subject to higher values. According to MacCallum et al. (1996), a value of 0.01 indicates an excellent fit, between 0.01 and 0.05 indicates a good fit and between 0.05 and 0.08 indicates a mediocre fit. Despite the model in this study being subject to higher values due to its simplicity, the RMSEA is below the critical value of 0.05, with an RMSEA value of 0.015. On this basis, the RMSEA value represents a good fit.

7.12.7 Root Mean Square Residual

The RMR is the mean absolute value of the covariance residuals. Byrne (2013) suggests that a small RMR value indicates a better fit. Hu and Bentler (1999) suggest that the RMR should ≤ 0.08 . However, Joreskog and Sorbom (1996) suggest that the RMR value should be < 0.05 for a good fit. This study adopts Joreskog and Sorbom's (1996) more stringent value. The RMR in Table 7.11 for the structural model is 0.024, suggesting a good fit.

7.12.8 Standardised Root Mean Square Residual

The SRMR is considered an absolute measure of fit and can be defined as the standardised difference between the observed correlation and the predicted correlation (Hu and Bentler, 1999). Given that the SRMR is an absolute measure of fit, a value of 0 indicates a perfect fit. Hu and Bentler (1999) suggest that a value less than 0.08 indicates a good fit. The SRMR value for the structural measurement model in the current study is 0.071, which is below the critical value outlined by Hu and Bentler (1999). Therefore, there is a good fit.

7.12.9 Summary of Goodness-of-Fit Statistics for the Measurement Model

It is evident from the previous sections that five out of the six goodness-of-fit indices reported are above the critical values outlined: CFI (0.906), NFI (0.947), SRMR (0.071), RMSEA (0.015) and RMR (0.024). The CMIN was the only fit statistic that was not able to produce a fitting model statistic, with $p = .000$. However, as previously highlighted in prior sections, the Chi-square test is sensitive to sample size and is often considered one of the least reliable fit statistics (Byrne, 2016) and can be disregarded. Therefore, the model is of a good fit, allowing the researcher to proceed with conducting the SEM.

Table 7.12 Standardised Regression Weights of Structural Model (1) Value Co-Creation

	Regression Weight	P-Value	Hypothesis Support
Information Quality → Utilitarian Value	0.558	0.000	Hypothesis Supported
Personalisation → Utilitarian Value	0.534	0.000	Hypothesis Supported
Interactivity → Utilitarian Value	0.236	0.000	Hypothesis Supported
Social Presence → Utilitarian Value	0.261	0.000	Hypothesis Supported
Utilitarian Value → Value Co-creation	0.886	0.000	Hypothesis Supported
Empathy → Value Co-creation	0.294	0.000	Hypothesis

			Supported
Comprehension → Value Co-creation	0.343	0.000	Hypothesis Supported
Value Co-creation → CBE	0.757	0.000	Hypothesis Supported
Customer Brand Engagement Intention → Continuance Intention	0.178	0.002	Hypothesis Supported
Customer Brand Engagement Intention → Brand Usage Intention	0.522	0.000	Hypothesis Supported
Value Co-creation → Continuance Intention	0.553	0.000	Hypothesis Supported

Looking at the relationship between information quality and utilitarian value, information quality has a significant effect on utilitarian value ($\beta = 0.588$), thus supporting the hypothesis. With regards to the relationship between personalisation and utilitarian value, personalisation has a significant effect on utilitarian value ($\beta = 0.534$), thus supporting the hypothesis. Looking at the relationship between interactivity and utilitarian value, interactivity has a significant effect on utilitarian value ($\beta = 0.236$), thus supporting the hypothesis. With respect to social presence and utilitarian value, social presence has a significant effect on utilitarian value ($\beta = 0.261$), thus supporting the hypothesis.

Looking at the relationships between utilitarian value and value co-creation, utilitarian value has a significant effect on value co-creation ($\beta = 0.896$), which supports the hypothesis. With regards to the relationship between empathy and value co-creation, empathy has a significant effect on value co-creation ($\beta = 0.294$), which supports the hypothesis. With respect to the relationship between comprehension and value co-creation, comprehension has a significant effect on value co-creation ($\beta = 0.343$). Looking at the relationship between value co-creation and CBE, value co-creation has a significant effect on CBE ($\beta = 0.757$), which supports the hypothesis.

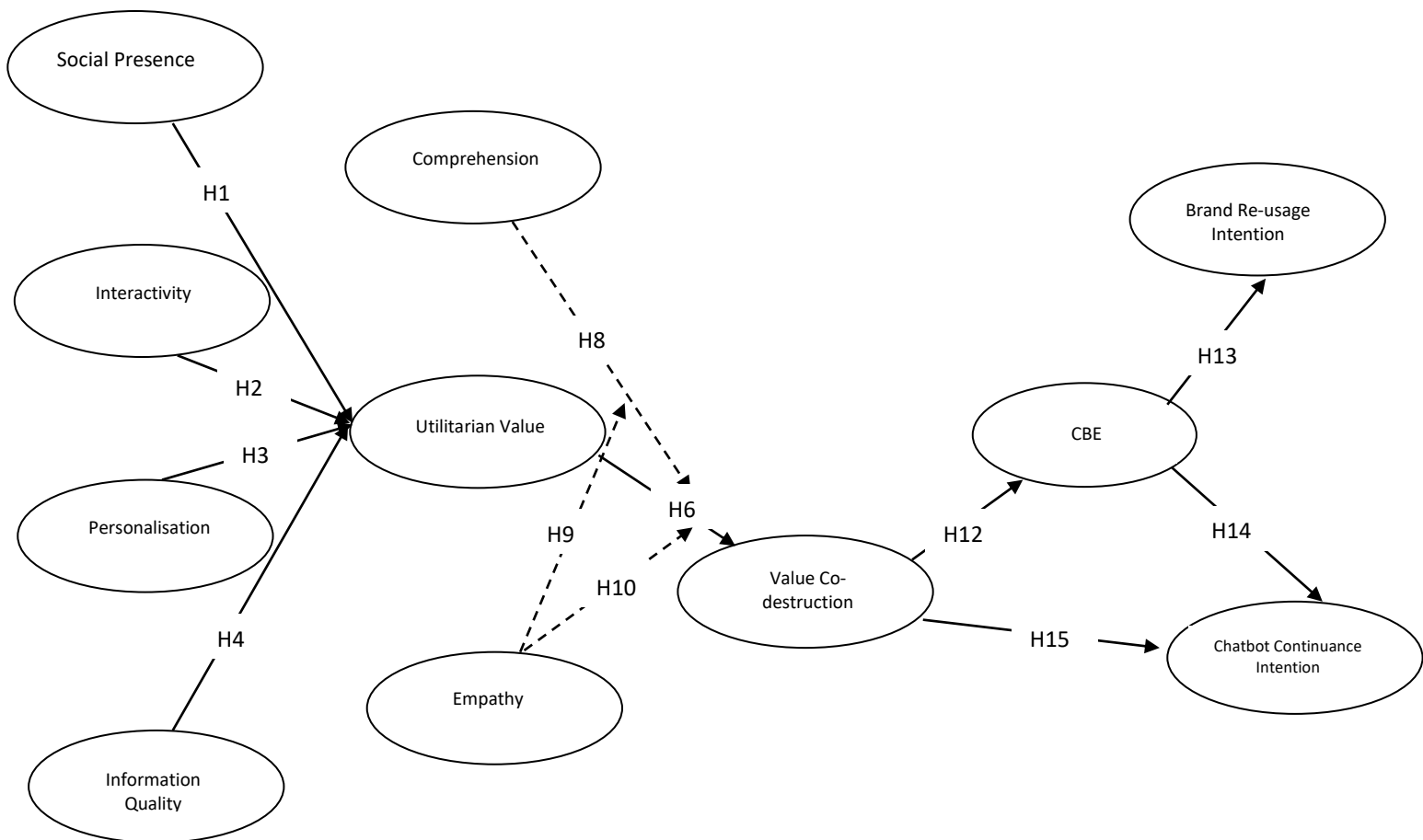
With regards to the relationship between CBE and continuance intention, CBE has a significant effect on continuance intention ($\beta = 0.178$), thus supporting the hypothesis. Looking at the relationship between CBE and brand usage intention, CBE has a significant effect on brand

usage intention ($\beta = 0.522$), thus supporting the hypothesis. With regards to value co-creation and continuance intention, value co-creation has a significant effect on continuance intention ($\beta = 0.553$), thus supporting the hypothesis.

7.13 Value Co-Destruction Structural Model (2)

The second structural model is illustrated in Figure 7.4, which presents the value co-creation structural model (1).

Figure 7.4 Structural Model (2) Value Co-destruction



7.13.1 Model Fit Indices Value Co-Destruction Structural Model (2)

Table 7.13 presents the goodness-of-fit indices for the value co-destruction structural model. The goodness-of-fit values for the structural model are discussed in relation to the recommended values of good fit.

Table 7.13 Structural Model (2) Fit-Value Co-Destruction

Fit Index	Goodness-of-Fit Value	Recommended Value of Good Fit
Chi-square	0.000	$P > 0.05$
CFI	0.954	≥ 0.90 ≥ 0.95
NFI	0.898	≥ 0.95 Good fit ≥ 0.90 Acceptable fit
SRMR	0.0339	< 0.08
RMSEA	0.055	≤ 0.5 Good Good fit $0.05 < RMSEA \leq 0.08$ Adequate fit $0.08 < RMSEA \leq 0.10$ Mediocre fit
RMR	0.04	< 0.05 ≤ 0.08

7.13.2 Chi-Square Test

The results of the Chi-square test show a significant value, where $p = 0.000$. However, as highlighted in Subsection 7.8, CMIN values are sensitive to larger sample sizes and can produce significant results with type II error, thereby rejecting the true model (Tabachnick and Fidell, 2010). In accordance with Bryne (2016), other reliable model fit statistics are reported in Table 7.13.

7.13.3 Comparative Fit Index

The CFI is a fit statistic that compares the existing model fit with a ‘null’ model, which assumes the latent variables in the model are uncorrelated with each other (Tabachnik and Fidell, 2007). As previously discussed, the CFI is a fit statistic often reported in marketing literature (Cadogan et al., 2002), as it is perceived as robust under severe multivariate non-normality (Ping, 1995) and a statistic least susceptible to sample size (Fan et al., 1999). As shown in Table 7.11, the CFI has a value range of 0–1, with a value > 0.90 , representing a good fit (Bentler, 1990). However, Bentler and Ho (1999) suggest that researchers should adopt a more stringent value

of 0.95. The CFI value reported in Table 7.13 for the measurement model is 0.954, which represents a good fit.

7.13.4 Normed Fit Index

The NFI is often seen as an alternative to the CFI (Byrne, 2013). The NFI does not require Chi-square assumptions and reflects the proportion that the model is fit compared with the null hypothesis. Thus, an NFI value of 0.60 would suggest that the proposed model improves fit by 60% compared with the null model. According to Schumacker and Lomax (2016) and Bentler and Bonett (1980), the NFI should be 0.90 for an acceptable fit. The NFI shown in Table 7.11 is 0.898, showing a below-adequate fit.

7.13.5 Root Mean Square Error of Approximation

According to Byrne (2013), the RMSEA is often regarded as one of the most useful fit indices. The RMSEA informs how well the model with unknown optimally chosen parameter values fits the population covariance matrix if it is available (Brown and Cudeck, 1993). However, the RMSEA favours more complex than simpler models, which are subject to higher values. According to MacCallum et al. (1996), a value of 0.01 indicates an excellent fit, between 0.01 and 0.05 indicates a good fit and between 0.05 and 0.08 a mediocre fit. Despite the model in this study being subject to higher values due to its simplicity, the RMSEA is 0.55, which is above the critical value of 0.05 and less than 0.08, representing an adequate fit.

7.13.6 Root Mean Square Residual

The RMR is the mean absolute value of the covariance residuals. Byrne (2013) suggests that a small RMR value indicates a better fit. Hu and Bentler (1999) suggest that the RMR should be ≤ 0.08 . However, Joreskog and Sorbom (1996) suggest that the RMR value should be < 0.05 for a good fit. This study adopts Joreskog and Sorbom's (1996) more stringent value. The RMR in Table 7.11 for the structural model is 0.04, suggesting a good fit.

7.13.7 Standardised Root Mean Square Residual

The SRMR is considered an absolute measure of fit and can be defined as the standardised difference between the observed correlation and the predicted correlation (Hu and Bentler, 1999). Given that the SRMR is an absolute measure of fit, a value of 0 indicates a perfect fit. Hu and Bentler (1999) suggest that a value less than 0.08 indicates a good fit. The SRMR value

for the structural measurement model in the current study is 0.0339, which is below the critical value outlined by Hu and Bentler (1999). Therefore, there is a good fit.

7.13.8 Summary of Goodness-of-Fit Statistics for the Measurement Model

It is evident from the previous sections that four out of the six goodness-of-fit indices reported are above the critical values outlined: CFI (0.954), SRMR (0.0339), RMSEA (0.055) and RMR (0.04). The CMIN was one of the two fit statistics that did not produce a fitting model statistic, with $p = 0.000$. In addition, the NFI (0.898) was below the critical value of 0.90, so the fit statistic was inadequate.

Table 7.14 Standardised Regression Weights of Structural Model (2) Value Co-Destruction

	Regression Weight	P-Value	Hypothesis Support
Information Quality → Utilitarian Value	0.549	0.000	Hypothesis Supported
Personalisation → Utilitarian Value	0.476	0.000	Hypothesis Supported
Interactivity → Utilitarian Value	0.126	0.000	Hypothesis Supported
Social Presence → Utilitarian Value	0.272	0.000	Hypothesis Supported
Utilitarian Value → Value Co-destruction	-0.374	0.000	Hypothesis Supported
Empathy → Value Co-destruction	-0.388	0.000	Hypothesis Supported
Comprehension → Value Co-destruction	-0.217	0.000	Hypothesis Supported
Value Co-destruction → Customer Brand Engagement	-0.232	0.000	Hypothesis Supported

Customer Brand Engagement → Continuanace Intention	0.727	0.000	Hypothesis Supported
Customer Brand Engagement → Brand Usage Intention	0.633	0.000	Hypothesis Supported
Value Co-destruction → Continuanace Intention	-0.209	0.000	Hypothesis Supported

Looking at the relationship between information quality and utilitarian value, information quality has a significant effect on utilitarian value ($\beta = -0.549$), thus supporting the hypothesis. With regards to the relationship between personalisation and utilitarian value, personalisation has a significant effect on utilitarian value ($\beta = 0.476$), thus supporting the hypothesis. Looking at the relationship between interactivity and utilitarian value, interactivity has a significant effect on utilitarian value ($\beta = 0.126$), thus supporting the hypothesis. With respect to social presence and utilitarian value, social presence has a significant effect on utilitarian value ($\beta = 0.272$), thus supporting the hypothesis.

Looking at the relationships between utilitarian value and value co-destruction, utilitarian value has a significant effect on value co-destruction ($\beta = -0.734$), which supports the hypothesis. With regards to the relationship between empathy and value co-destruction, empathy has a significant effect on value co-destruction, ($\beta = -0.388$), which supports the hypothesis. With respect to the relationship between comprehension and value co-destruction, comprehension has a significant effect on value co-destruction, ($\beta = -0.217$). Looking at the relationship between value co-destruction and CBE, value co-destruction has a significant effect on CBE ($\beta = -0.232$), which supports the hypothesis.

With regards to the relationship between CBE and continuance intention, CBE has a significant effect on continuance intention ($\beta = 0.727$), so the hypothesis is supported. Looking at the relationship between CBE and brand usage intention, CBE has a significant effect on brand usage intention ($\beta = 0.633$), so the hypothesis is supported. With regards to value co-destruction and continuance intention, value co-destruction has a significant effect on continuance intention ($\beta = -0.209$), so the hypothesis is supported.

7.14 Multi-Group Structural Equation Modelling

7.14.1 Multi-Group Structural Analysis: Last Use of Chatbot (Value Co-Creation Model)

Table 7.15 presents the data for the Chi-square difference test, which shows if differences exist between the entire models with respect to when the chatbot was last used. The results indicate $p < 0.005$; thus, differences exist within the data.

Table 7.15 Chi-Square Difference Test

Model	DF	CMIN	P
Structural Weights	308	889.43	0.000

Table 7.16 outlines the results of the multi-group analysis. The findings indicate that although there are differences in the β values (standardised regression weights) of the groups with respect to when the chatbot was last used, no significant differences appear amongst the β values. Therefore, regardless of how long ago a customer used a chatbot, it does not have a significant impact on the customers' perceptions of their interactions with the chatbot.

Table 7.16 Multi-Group Structural Analysis: Last Use of Chatbot (Value Co-Creation Model) Standardised Regression Weight Comparison

	Under 1 Week	1–2 Weeks	2–3 Weeks	3–4 Weeks	Over a Month
Information Quality \rightarrow Utilitarian Value	0.530	0.528	0.532	0.569	0.493
Personalisation \rightarrow Utilitarian Value	0.519	0.566	0.515	0.493	0.538
Interactivity \rightarrow Utilitarian Value	0.197	0.208	0.226	0.199	0.173
Social Presence \rightarrow Utilitarian Value	0.292	0.277	0.228	0.238	0.228
Utilitarian Value \rightarrow Value Co-creation	0.892	0.880	0.917	0.798	0.873

Empathy → Value Co-creation	0.274	0.284	0.280	0.213	0.241
Comprehension → Value Co-creation	0.357	0.367	0.354	0.321	0.304
Value Co-creation → Customer Brand Engagement	0.808	0.847	0.828	0.845	0.706
Customer Brand Engagement → Continuance Intention	0.686	0.736	0.641	0.711	0.714
Customer Brand Engagement → Brand Usage Intention	0.630	0.501	0.491	0.63	0.564
Value Co-creation → Continuance Intention	0.473	0.494	0.503	0.552	0.543

7.14.2 Multi-Group Structural Analysis: Chatbot Identification (Value Co-Creation Model)

Table 7.17 presents the Chi-square difference test output generated from AMOS. It is evident that $p < 0.005$; thus, differences exist within the data depending on how customers identify that they are speaking to a chatbot.

Table 7.17 Chi-Square Difference Test

Model	DF	CMIN	P
Structural Weights	485	610.890	0.000

Table 7.18 presents the results of the multi-group analysis. The findings indicate significant differences in the β values with respect to how customers were able to identify they were interacting with a chatbot. First, looking at the relationship between information quality and utilitarian value, there are significant differences in the β values between the ‘It replies instantly’ group ($\beta = 0.818$) and the ‘It asks continuous sets of questions’ group ($\beta = -0.43$). This suggests that when the chatbot responds instantly, the customers perceive the information quality of the chatbot to be higher than when the chatbot presents the customer with a continuous set of questions. Second, with respect to the relationship between personalisation and utilitarian value, there are significant differences in the β values between the ‘It uses

simplified language' group ($\beta = 0.87$) in comparison with both the 'It asks continuous sets of questions' group ($\beta = -0.395$) and 'It responds with a menu' group ($\beta = -0.183$).

This suggests that when the chatbot responds using simplified language, the customer perceives the chatbot to have a higher personalisation than when the chatbot asks continuous questions or responds with a menu. Third, with regards to the relationship between interactivity and utilitarian value, there are significant differences in the β values between the 'It responds with a menu' group ($\beta = 0.959$) and the 'It uses simple language' group ($\beta = -0.338$). In essence, when the chatbot responds with a menu, customers consider the chatbot to have higher interactivity than when the chatbot use simplified language during the interaction. Moreover, when looking at the relationship between social presence and utilitarian value, there are significant differences in the β values between the 'It asks me continuous questions' group ($\beta = 0.720$) and the 'It responds with a menu' group ($\beta = -0.147$). The findings suggest that when the chatbot asks the customer continuous sets of questions, the customer perceives the chatbot to have a higher social presence than when the chatbot responds with a menu. Furthermore, with regards to empathy and value co-creation, there are significant differences in the β values between the 'It replies instantly' group ($\beta = 0.461$) and both the 'It uses simple language' group (-0.85) and the 'It responds with a menu' group ($\beta = 0.01$). Thus, when the chatbot replies instantly, customers consider the chatbot to have higher empathy than when the chatbot uses simplified language and responds with a menu. Looking at the relationship between comprehension and value co-creation, there are substantial differences in the β values between the 'It replies instantly' group ($\beta = 0.720$) and both the 'It asks me continuous questions' group ($\beta = 0.39$) and the 'It responds with a menu' group ($\beta = 0.89$). Therefore, when the chatbot replies instantly, customers perceive the chatbot to have a higher comprehension than when the chatbot asks continuous sets of questions or responds with a menu. With respect to the relationship between value co-creation and CBE, there are notable differences in the β values between the 'It responds with a menu' group ($\beta = 0.997$) and the 'It identifies itself as a chatbot' group ($\beta = 0.733$). This suggests that when the chatbot responds with a menu, customers perceive the chatbot to have higher value co-creation potential than when the chatbot identifies itself as a chatbot. Looking at the relationship between CBE and brand usage intention, there are significant differences in the β values between the 'It replies instantly' group ($\beta = 0.932$) and the 'It identifies itself as a chatbot' group ($\beta = 0.506$). This suggests that when the chatbot replies instantly, customers perceive the chatbot as having a higher potential to facilitate CBE than when the chatbot identifies itself as a chatbot.

Table 7.18 Multi-Group Structural Analysis: Chatbot Identification (Value Co-Creation Model) Standardised Regression Weight Comparison

	It identifies itself as a chatbot	It has a robot as its picture	It replies instantly	It uses simple language	It asks me continuous questions	It responds with a menu
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Information Quality → Utilitarian Value	0.469	0.551	0.818	0.303	-0.43	0.419
Personalisation → Utilitarian Value	0.599	0.531	0.404	0.876	-0.394	-0.184
Interactivity → Utilitarian Value	0.095	0.151	0.467	-0.338	0.552	0.959
Social Presence □ Utilitarian Value	0.250	0.257	0.085	0.332	0.720	-0.148
Utilitarian Value → Value Co-creation	0.877	0.861	0.898	0.978	0.996	0.990
Empathy → Value Co-creation	0.213	0.272	0.461	-0.085	0.151	0.018
Comprehension → Value Co-creation	0.295	0.361	0.720	0.475	0.039	0.081
Value Co-creation → Customer Brand Engagement	0.733	0.790	0.911	0.946	0.965	0.997
Customer Brand Engagement → Continuance Intention	0.671	0.710	0.810	0.783	0.877	0.991
Customer Brand Engagement → Brand Usage Intention	0.507	0.526	0.932	0.723	0.677	0.976
Continuance Intention → Value Co-creation	0.604	0.632	0.587	0.557	0.402	0.443

7.14.3 Multi-Group Structural Analysis: Reason for Chatbot Usage (Value Co-Creation Model)

Table 7.19 presents the Chi-square difference test. The table indicates that $p < 0.005$, suggesting that there are differences within the data depending on the customers' reasons for using a chatbot during service encounters.

7.19 Chi-Square Difference Test

Model	DF	CMIN	P
Structural Weights	245	575.921	0.000

Table 7.20 presents the results of the multi-group analysis. With regards to the relationship between information quality and utilitarian value, there are significant differences in the β values between the 'To locate information I cannot find on the website' group ($\beta = 0.687$) and the 'To get connected to a human service representative' group ($\beta = 0.343$). This suggests that when customers use a chatbot to locate information they cannot find on the website, they perceive the chatbot to have a higher information quality than when they use the chatbot to get connected to a human service representative. With regards to the relationship between interactivity and utilitarian value, there are significant differences in the β values of the 'To obtain information quickly' group ($\beta = 0.536$) and both the 'To raise a query or solve a problem' group ($\beta = -0.239$) and the 'To get connected to a human service representative' ($\beta = 0.048$) group. This suggests that when chatbots are used to obtain information quickly, customers perceive them as having higher interactivity than when the chatbot is used to raise a query or a problem.

Looking at the relationship between utilitarian value and value co-creation, there are significant differences among the 'To get connected to a human service representative' group ($\beta = 0.457$) and the 'To process a refund/return' group ($\beta = 0.896$) and the 'To get a personalised deal or experience' group ($\beta = 0.900$). In relation to the relationship between empathy and value co-creation, there are significant differences in the β values between the 'To locate information I cannot find on the website' group ($\beta = 0.517$) and the 'To get a personalised deal or experience' group ($\beta = -0.120$). This means that when the customer uses the chatbot to locate information they cannot find on the website, the customer perceives the chatbot to have higher empathy than when the chatbot is used to get a personalised deal or experience. With respect to the relationship between comprehension and value co-creation, there are significant differences in the β values between the 'To locate information I cannot find on the website' group ($\beta = 0.628$)

and the 'To get connected to a human service representative' group ($\beta = 0.150$). This suggests that when customers use the chatbot to locate information they cannot find on the website, customers perceive the chatbot to have higher comprehension than when they use the chatbot to get connected to a human service representative. Looking at the relationship between value co-creation and CBE, there are significant differences in the β values of the 'To locate information I cannot find on the website' group ($\beta = 0.871$) and the 'To process a refund/return or exchange' group ($\beta = 0.593$). This suggests that when customers use the chatbot to locate information they cannot find on the website, customers perceive the chatbot as having higher value co-creation potential than when the chatbot is used to process a refund or exchange. With regards to the relationship between CBE and brand usage intention, there are significant differences in the β values between the 'To get a personalised deal or experience' group ($\beta = 0.821$) and both the 'To locate information I cannot find on the website' group ($\beta = 0.451$) and the 'To get connected to a human service representative' ($\beta = 0.491$) group. This suggests that when customers use the chatbot to get a personalised deal or experience, customers perceive the chatbots as fostering higher CBE than when they use the chatbot to locate information they cannot find on the website or when they use the chatbot to get connected to a human service representative.

Table 7.20 Multi-Group Structural Analysis: Reason for Chatbot Usage (Value Co-Creation Model) Standardised Regression Weight Comparison

	To locate info, I cannot find on the website	To obtain info quickly	To process a refund/return or exchange	To get a personalised deal or experience	To raise a query or problem	To get connected to a human service rep
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Information Quality → Utilitarian Value	0.687	0.409	0.447	0.525	0.576	0.344
Personalisation → Utilitarian Value	0.483	0.525	0.566	0.457	0.517	0.304
Interactivity → Utilitarian Value	0.425	0.536	0.345	0.486	0.239	0.048
Social Presence → Utilitarian Value	0.181	0.205	0.151	0.149	0.254	0.379
Utilitarian Value → Value Co-creation	0.748	0.912	0.896	0.900	0.734	0.457
Empathy → Value Co-creation	0.517	0.357	0.225	0.120	0.140	0.081
Comprehension → Value Co-creation	0.628	0.303	0.577	0.516	0.307	0.150
Value Co-creation → Customer Brand Engagement	0.871	0.760	0.594	0.855	0.810	0.844
Customer Brand Engagement → Continuance Intention	0.781	0.684	0.597	0.608	0.781	0.732
Customer Brand Engagement → Brand Usage Intention	0.457	0.623	0.606	0.821	0.545	0.491
Value Co-creation → Continuance Intention	0.631	0.546	0.552	0.519	0.643	0.631

7.15.4 Multi-group Structural Analysis: Last Use of Chatbot (Value Co-destruction Model)

Table 7.20 presents the Chi-square difference test. The table indicates that $p < 0.005$, suggesting that there are differences in the data depending on when customers last used the chatbot.

7.20 Chi-Square Difference Test

Model	DF	CMIN	P
Structural Weights	392	913.644	0.000

Table 7.21 presents the results of the multi-group analysis. The findings indicate that there are differences in the β values (standardised regression weights) of the groups with respect to when the chatbot was last used. However, the differences between the β values of the groups are not significant. Therefore, regardless of how long ago a customer used a chatbot, this does not have a significant impact on the customers' perceptions of their interactions with the chatbots. These findings are consistent with those reported in Subsection 7.10.1.

Table 7.21 Multi-Group Structural Analysis: Last Use of Chatbot (Value Co-Destruction Model) Standardised Regression Weight Comparison

	Under 1 Week	1–2 Weeks	2–3 Weeks	3–4 Weeks	4–5 Weeks
Information Quality → Utilitarian Value	0.408	0.603	0.561	0.586	0.558
Personalisation → Utilitarian Value	0.636	0.477	0.534	0.469	0.408
Interactivity → Utilitarian Value	0.317	0.433	0.513	0.484	0.093
Social Presence → Utilitarian Value	0.197	0.326	0.179	0.122	0.369
Utilitarian Value → Value Co-destruction	-0.323	-0.253	-0.296	-0.413	-0.455
Empathy → Value Co-destruction	-0.211	-0.353	-0.371	0.364	-0.356
Comprehension → Value Co-destruction	-0.098	-0.126	-0.319	-0.223	-0.262
Value Co-destruction → Customer Brand Engagement	-0.207	-0.098	-0.133	-0.310	-0.399
Customer Brand Engagement → Continuance Intention	0.799	0.854	0.801	0.700	0.637
Customer Brand Engagement → Brand Usage Intention	0.0793	0.669	0.753	0.644	0.659
Value Co-destruction → Continuance Intention	-0.120	-0.085	-0.177	-0.232	-0.266

7.14.5 Multi-Group Structural Analysis: Chatbot Identification (Value Co-Destruction Model)

Table 7.22 presents the Chi-square difference test output generated from AMOS. It is evident that $p < 0.005$; thus, differences exist within the data depending on how customers identify that they are speaking to a chatbot.

7.22 Chi-Square Difference Test

Model	DF	CMIN	P
Structural Weights	395	245.174	0.000

Table 7.23 presents the results of the multi-group analysis. First, when looking at the relationship between information quality and utilitarian value, there are significant differences in the β values of the ‘It responds with a menu’ group ($\beta = 0.611$) and the ‘It asks me continuous questions’ group ($\beta = 0.113$). This suggests that when the chatbot responds with a menu, customers consider the chatbot to have higher information quality than when the chatbot asks the customer continuous sets of questions. Second, the relationship between personalisation and utilitarian value presents significant differences in the β values of both the ‘It identifies itself as a chatbot’ ($\beta = 0.570$) and ‘It has a robot as its picture’ ($\beta = 0.476$) groups in comparison to both the ‘It replies instantly’ ($\beta = 0.012$) and ‘It uses simple language’ ($\beta = 0.006$) groups. These findings suggest that when the chatbot has a profile picture of a robot and identifies itself to the customer, customers perceive the chatbot to have higher levels of personalisation than when the chatbot replies instantly and uses simplified language. Third, with regards to the relationship between interactivity and utilitarian value, there are significant differences identified in the β values of the ‘It replies instantly’ group ($\beta = 0.942$) and the ‘It identifies itself as a chatbot’ group ($\beta = 0.095$). The findings suggest that when the chatbot replies instantly, customers perceive the chatbot as having a higher interactivity than when the chatbot identifies itself as a chatbot. Looking at the relationship between social presence and utilitarian value, there are significant differences in the β values between the ‘It uses simple language’ group ($\beta = 0.655$) and both the ‘It has a robot as its icon picture’ ($\beta = 0.272$) and ‘It identifies itself as a chatbot’ ($\beta = 0.243$) groups. This result suggests that when the chatbot uses simplified language, customers perceive the chatbot as having a higher social presence than when the chatbot has a robot icon as its picture or when it identifies itself as a chatbot. With respect to the relationship between comprehension and value co-destruction, there are significant differences in the β values between the ‘It replies instantly’ group ($\beta = -0.377$) and the ‘It uses simplified language’ group ($\beta = -0.919$).

This result means that when the chatbot uses simplified language, it has a lower comprehension than when it replies instantly. Looking at the relationship between value co-destruction and CBE, there are significant differences in the β values between the ‘It responds with a menu’ group ($\beta = -0.918$) and both the ‘It has a robot icon as its picture’ ($\beta = -0.124$) and ‘It identifies itself as a chatbot’ ($\beta = -0.291$) groups. This finding suggests that chatbots that identify themselves as such and have a robot icon as their picture have lower value co-destruction potential than chatbots that respond with a menu.

Table 7.23 Multi-Group Structural Analysis: Chatbot Identification (Value Co-Destruction Model) Standardised Regression Weight Comparison

	It identifies itself as a chatbot	It has a robot as its picture	It replies instantly	It uses simple language	It asks me continuous questions	It responds with a menu
Information Quality → Utilitarian Value	0.433	0.549	0.448	0.469	0.113	0.611
Personalisation → Utilitarian Value	0.570	0.476	0.012	0.006	0.252	0.150
Interactivity → Utilitarian Value	0.095	0.126	0.942	0.277	0.753	0.554
Social Presence → Utilitarian Value	0.243	0.272	0.520	0.655	0.583	-0.551
Utilitarian Value → Value Co-destruction	-0.448	-0.573	-0.708	-0.584	-0.625	-0.465
Empathy → Value Co-destruction	-0.341	-0.388	-0.305	-0.250	-0.504	-0.324
Comprehension → Value Co-destruction	-0.494	-0.452	-0.377	-0.919	-0.403	-0.868
Value Co-destruction → Customer Brand Engagement	-0.291	-0.124	-0.925	-0.903	-0.815	-0.974

Customer Brand Engagement → Continuance Intention	0.697	0.772	0.983	0.594	0.939	0.918
Customer Brand Engagement Brand → Brand Usage Intention	0.614	0.647	0.708	0.825	0.982	0.981
Value Co-destruction → Intention Continuance	-0.202	-0.181	-0.102	-0.418	-0.110	0.078

7.14.6 Multi-group Structural Analysis: Reason for Chatbot Use (Value Co-creation Model)

Table 7.24 presents the Chi-square difference test output generated from AMOS. It is evident that $p < 0.005$; therefore, differences exist in the data depending on the customers' reasons for using a chatbot.

7.24 Chi-Square Difference Test

Model	DF	CMIN	P
Structural Weights	490	1031.33	0.000

Table 7.25 presents the results of the multi-group analysis. The findings indicate that there are differences in the β values (standardised regression weights) of the groups with respect to the reasons why customers use chatbots. First, when looking at the relationship between information quality and utilitarian value, there are significant differences in the β values between the 'To locate information I cannot find on the website' group ($\beta = 0.695$) and the 'To process a refund/return' group ($\beta = 0.340$).

Second, when looking at the relationship between interactivity and utilitarian value, there are significant differences in the β values of the 'To obtain information quickly' group ($\beta = 0.795$) and both the 'To get connected to a human representative' ($\beta = 0.340$) and 'To get connected to a human service representative' ($\beta = 0.236$) groups. This finding means that when customers use the chatbot to locate information they cannot find on the website, they perceive the chatbot to have a higher information quality than when they use it to get connected to a human service representative or to process a refund/return. Looking at the relationship between comprehension and value co-destruction, there are significant differences in the β values between the 'To locate information I cannot find on the website' group ($\beta = -0.041$) and the

‘To get connected to a human service representative’ group ($\beta = -0.413$). This result means that when customers use the chatbot to get connected to a human service representative, customers perceive the chatbot as having a lower comprehension than when they use the chatbot to locate information they cannot find on the website. When looking at the relationship between value co-destruction and CBE, there are significant differences in the β values between the ‘To obtain information quickly’ group ($\beta = -0.065$) and the ‘To get a personalised deal or experience’ group ($\beta = -0.421$). This result suggests that when customers use the chatbot to obtain information quickly, it has a lower value co-destruction potential than when customers use the chatbot to get a personalised deal or experience.

Table 7.25 Multi-Group Structural Analysis: Reason for Chatbot Use (Value Co-Destruction Model) Standardised Regression Weight Comparison

	To locate info, I cannot find on the website	To obtain info quickly	To process a refund/return	To get a personalised deal or experience	To raise a query or problem	To get connected to a human service rep
Information Quality → Utilitarian Value	0.795	0.457	0.340	0.547	0.547	0.237
Personalisation → Utilitarian Value	0.478	0.428	0.527	0.485	0.485	0.338
Interactivity → Utilitarian Value	0.331	0.493	0.362	0.285	0.285	0.070
Social Presence → Utilitarian Value	0.185	0.177	0.220	0.298	0.298	0.384
Utilitarian Value → Value Co-destruction	-0.258	-0.418	-0.384	-0.469	-0.469	-0.337
Empathy → Value Co-destruction	-0.332	-0.281	-0.273	-0.145	-0.145	-0.371
Comprehension → Value Co-destruction	-0.041	-0.061	-0.023	-0.189	-0.189	-0.414

Value Co-destruction → Customer Brand Engagement	-0.293	-0.065	-0.198	-0.421	-0.421	-0.391
Customer Brand Engagement → Continuation Intention	0.887	0.747	0.647	0.684	0.684	0.801
Customer Brand Engagement → Brand Usage Intention	0.586	0.717	0.707	0.511	0.511	0.623
Value Co-destruction → Continuation Intention	-0.106	-0.127	-0.123	-0.315	-0.315	-0.177

Chapter 8

Discussion

8.0 Introduction

This chapter presents a discussion of the findings of the quantitative study in Chapter 7, with reference to the in-depth interview findings in Chapter 6 and the literature reviewed in chapters 2, 3 and 4. The current chapter will also be discussed in relation to the four research objectives:

(1) to explore how customers perceive the impacts of brands' automated technology on value co-creation and value co-destruction; (2) to examine the variables influencing CBE when customers interact with brands' automated technology; (3) to examine the CBE outcomes that occur when customers interact with brands' automated technology and (4) to examine the reasons customers use brands' automated technology during service encounters.

Recent value co-creation research has overlooked the impact of novel automated technologies on customers' experiences of value co-creation and value co-destruction (Hsu et al., 2021; Nangpire et al., 2021; Mele et al., 2021; Parsons et al., 2021). Moreover, little is known about the variables that influence CBE in settings where customers are using automated technologies to interact with brands. The current study aims to achieve the four research objectives, which would help advance our understanding on how customers may experience value co-creation or value co-destruction during automated service interactions. In addition, in-depth insight is provided as to the variables that influence CBE and the outcomes of CBE facilitated by novel automated technologies (chatbots).

A total of seven key characteristics are found to influence how value is co-created or co-deconstructed by brands' chatbots. Thereafter, the influence of nine variables is examined with respect to CE with a brand following automated service encounters. In addition, the impact of CBE (fostered through automated service interactions) on brand usage intent and continuance intention with the chatbot is examined.

8.1 How Customers Perceive the Impact of Brands' Automated Technology Influence on Their Experiences of Value Co-creation and Value Co-destruction

The current study is the first to explore both the value co-creating and value co-destructing potentials of automated technology in value-based service networks. As outlined in Chapter 6, the findings of the in-depth interviews reveal that customers may experience both value co-creation and value co-destruction when interacting with brands' chatbots for service delivery.

However, as indicated in the in-depth interview findings presented in Chapter 6, it is important to note that the customers' experience of value co-creation or value co-destruction is dependent on the characteristics of the chatbots they interact with. Thus, the researcher deemed it necessary to have four different chatbots for the purpose of this study, as mentioned in Chapter 5.

The findings from the in-depth interviews revealed the characteristics of chatbots that account for how customers perceive the impact of chatbots on their experience of value co-creation or value co-destruction. Table 8.0 outlines the characteristics and what they identify within the literature.

Table 8.0 Chatbot Characteristics

Characteristic	Definition	Source
Instantaneous Support (Automated Social Presence)	The extent to which machines (e.g. robots) make consumers feel that they are in the company of another social entity.	Van Doorn et al., 2017
Informational Benefits (Information Quality)	Information that is clear, current, relevant, accurate, complete and reliable is believed to be of high quality.	Guo et al., 2012
Personalisation	An automated process that involves the identification of customers, the collection of customer behavioural records, the analysis of customer preferences and the tailoring of content to suit each customer.	Ho and Bodoff, 2014
Perceived Control	The extent to which a customer has control over their interaction with an interface.	Guo et al., 2012
Consistency (Comprehension)	The chatbots' ability to understand the customers' queries or questions.	Wirtz et al., 2018; Castillo et al., 2020
Irreplaceability of Humans (Comprehension & Empathy)	The authenticity and emotional display of the chatbot to the customer.	Nummunmaa et al., 2008; McLean and Frimpong, 2017
Perceived Personal Interaction (Empathy)	The customers' perceptions of interpersonal relations with the chatbot, including reliability, trust, courtesy, friendliness and support.	Breidbach and Maglio, 2016

The characteristics presented in Table 8.0 each play a key role with respect to customers' experience of value co-creation and value co-destruction during service-based encounters with chatbots.

8.2 Variables Influencing CBE

While there is a new and emerging body of literature on automated service interactions and CBE (Hollebeek et al., 2021; Huang and Rust, 2021), little is known about the variables that influence CBE when customers interact with automated technologies, specifically chatbots. To the best of the researcher’s knowledge, there are limited studies that examine the variables influencing CBE in automated interaction service settings (Prentice et al., 2020).

The variables to be examined are derived from the in-depth interviews and the literature reviewed in Chapters 2–3. The variables include automated social presence, interactivity (consisting of control and responsiveness), information quality, personalisation, utilitarian value, empathy, comprehension, value co-creation and value co-destruction (Van Doorn et al., 2017; McMillan and Hwang, 2002; Day and Cai, 2014; Kim et al., 2012; Jensen et al., 2010; Guo et al., 2012; Ho and Bodoff, 2014; Castillo et al., 2020; McLean and Frimpong, 2017; Breidbach and Maglio, 2016; Wirtz et al., 2018; Nummunmaa et al., 2008; Gronroos and Voima, 2013; Laud et al., 2019). Table 8.1 presents a clarification of the definitions of each of the variables pertinent to the study.

Table 8.1 Clarification of Variables Influencing CBE

Variable	Definition	Source
Interactivity	The customer’s perceptions of how well an interface interacts with them in relation to two-way communication, user control and responsiveness/timely feedback.	Jensen et al., 2014
Automated Social Presence	The extent to which machines (e.g. robots) make consumers feel that they are in the company of another social entity.	Van Doorn et al., 2017
Information Quality	Information that is clear, current, relevant, accurate, complete and reliable is believed to be of high quality.	Guo et al., 2012
Personalisation	An automated process that involves the identification of customers, the collection of customer behavioural records, the	Ho and Bodoff, 2014

	analysis of customer preferences and the tailoring of content to suit each customer.	
Perceived Utilitarian Value	Customer's perceptions of the functional value or economic benefits of a product, service or technology.	Ry et al., 2010
Value Co-Creation	The collaborative development of value gain between focal actors through the integration of firm and customer resources.	Gronroos and Voima, 2013
Value Co-destruction	An interactional process between focal actors (brands, customers and technology) that results in a decline of at least one of the focal actor's well-being.	Laud et al., 2019
Empathy	The authenticity and emotional display of the chatbot to the customer.	Nummunmaa et al., 2008; McLean and Frimpong, 2017
Comprehension	That chatbot's ability to understand the customer's queries or questions.	Wirtz et al., 2018; Castillo et al., 2020

8.2.1 Social Presence

Kang and Kim (2021) assert that social presence is of particular importance in technology-mediated environments that facilitate customer-brand interaction, especially when the technology can predict customer responses based on the information exchanged. In essence, social presence is an internal feeling of being connected or interacting with a social, intelligent being as opposed to an inanimate object. Various factors enhance the experience of social presence, such as the individual characteristics of the technology (e.g. name, profile picture, gender), the qualities of the technology (e.g. responsiveness) and contextual features (e.g. physical proximity) (Oh et al., 2018). Novel automated technologies can collect real-time information from users and their settings and use these data to generate highly personalised interactional experiences, enabling customers to perceive automated technologies as authentic social agents (Kang and Kim, 2020).

H1 examined the relationship between social presence and utilitarian value. The findings from the quantitative study indicate that social presence has a significant effect on utilitarian value. This finding suggests that customers rely on a variety of social cues, such as responsiveness, language and capability of expressing human presence (e.g. a name and an introductory greeting). In line with this, Go and Sundar (2019) argue that identity cues represent a key element of customer expectations with regard to a chatbot's functionality during a service encounter. These expectations influence the customers' perceptions of utilitarian value. The Media Equation Theory by Holzwarth et al. (2006) posits that humans are inclined to treat machines as social entities that partake in social behaviours and make social contributions in a way human customer service agents do (Taddei and Contenna, 2013; Go and Sundar, 2019). Customers apply these standards to their automated service interactions with brands and personify chatbots regardless of how they are presented. The findings of the quantitative study indicate that when chatbots engage in more human-like interactions and elicit more identity and social cues, the customers' perceptions of utilitarian value are enhanced.

Caic et al. (2018) focus on the role of socially assistive robots (i.e. robots with a high social presence) in care-based networks. The focal actors (elderly people in need of care) evaluated that socially assistive robots offered more functional value to them than those that had low levels of social presence. The findings obtained from the in-depth interviews build on these results. When the informants were asked what aspects of their interaction they enjoyed most with the chatbot, they stated that they valued how the chatbot was always available to provide support, indicating a high level of social presence. An informant stated: *'It is important that I can speak to Tobi at any time. He is always there to help me anytime I need some assistance from Vodafone, even late at night'*.

The chatbot offers utilitarian value to the customer by offering increased support at the convenience of the customer, as the customer may interact with the chatbot at any time of the day. The customers' sense of belief that the chatbot is always present 24/7 to assist the customer with any needs adds value to them. In addition, the informants added that they enjoyed how quickly the chatbots responded. 'I knew it was a chatbot because it is giving me quick responses to my questions, which I quite liked'. In this case, a chatbot provides value for the customer as it responds instantly to the customer's questions. According to Kang and Kim (2021), instant responses to a customer reflect a firm's professionalism, competence and caring, which all form one dimension of service quality linked to customer satisfaction.

The quantitative findings from the structural model build and extend the findings obtained from the in-depth interviews. Customers' perceptions of value begin to form at the initial contact point in the customer journey (McLean and Frimpong, 2017; Kang and Kim, 2020). Chatbots are one of the first contact points during the customer journey, and as a result, customers expect them to reply instantly, be available 24/7 and be even more accessible than human-customer service representatives. Chatbots create value for the customer because they reduce the time customers have to wait when seeking support from the brand or service provider. Based on the findings of the quantitative study and in-depth interviews, it is essential that brands and service providers pay attention to social presence when designing and implementing chatbots for service delivery. This will ensure that customers' interactions with chatbots add value to the customer.

8.2.2 Interactivity

Hari et al. (2021) state that interactivity involves exchange and two-way communication between actors. Chatbots facilitate a seamless experience for customers by presenting automated answers to repetitive answers to recurrent issues (Behera et al., 2021). Tezcan and Zhang (2019) assert that chatbots are more efficient when it comes to solving customer-related issues as opposed to phone calls and e-mails because they demonstrate elevated levels of interactivity. One chatbot can provide continuous and uninterrupted service to numerous customers (Chung et al., 2018). Chatbots enable rapid customer-brand communication, thereby providing good interactivity and convenience to the customers. Due to their interactive nature, chatbots are deployed as a tool for personalisation and CE (Kumar et al., 2019). A study by Eren (2021) indicates that perceived interactivity significantly affects customer satisfaction with chatbot use among banking customers.

H2 examined the relationship between interactivity and utilitarian value. The findings obtained from the quantitative study indicate that interactivity has a significant effect on utilitarian value. These results suggest the importance of chatbots' conversational ability. The higher the interactivity of the chatbot, the greater the customer experience (Baek et al., 2019). Thus, an interactive chatbot will add more functional/utilitarian value to the customer. A chatbot that is highly interactive makes it easy for customers to obtain information quickly when they need it (e.g. 24/7). The findings of the structural models presented in Chapter 9 assert that the interactivity and conversational quality of the chatbot significantly impact utilitarian value. In addition, a highly interactive chatbot will positively influence CBE. In line with this, Hultman

and Zarki (2021) state that interactive customer-brand interactions add value to the customer, which, in turn, strengthens the engagement with the brand. In a study by Rana (2020), mobile interactivity plays a key role in enhancing the value experienced and CE within m-commerce settings. In addition, Islam and Rahman (2017) reveal that interactivity plays a critical role within online brand communities when it comes to influencing CE, as customers become more connected with brands in these settings. Engagement in virtual settings is facilitated by rapid two-way communication (i.e. interactivity) (Kim and Hyun, 2017).

The quantitative findings of this study suggest that when customers perceive a chatbot to be highly interactive, aside from gaining value from the interaction, their engagement with the brand also increases. Moreover, the findings from this study extend the literature by highlighting how the responsiveness of chatbots influences perceptions of value. During the in-depth interviews, informants highlighted how responsive and useful chatbots were during their past service encounters. ***‘Tobi gets me to where I need to get the issue resolved much faster than their automated telephone system or than going into the store’.*** In addition, the findings of this study extend the literature by indicating the importance of customers’ ability to control service encounters, particularly those that are chatbot-enabled (automated). Chatbots give customers more control during service encounters. The informants stated that they could take their time when using the chatbot because they had more control and, thus, more satisfaction coming from using the chatbot. For instance, one informant (P4) said: ***‘I would rather use a chatbot than a human. If you are speaking to a human, you don’t want to mess around with the agent. If it’s a chatbot, you can take more time using it, and you can change your results depending on a few things. With humans, there’s a bit less patience, and when you’re dealing with a human, you don’t want to be a pain’.***

In this case, the customer experiences value co-creation since they have active control over their interaction with the chatbot, which results in achieving their end goal. In addition, given that the customer has control over the interaction with the chatbot, the service encounter becomes easier to navigate for the customer, thereby simplifying the service process, which, in turn, adds value to the customer. The chatbot is considered a beneficial customer touchpoint, particularly for first-time users of certain service providers. ***‘If there was someone who wasn’t as good with technology, I would recommend using the chatbot because it’s so easy to use, and you have more control over it’.***

The findings obtained from the structural models support the findings of the in-depth interviews. When implementing chatbots as customer touchpoints or as tools for service delivery, it is essential that brands pay attention to the interactivity features of the chatbot. If the chatbot is highly interactive, it will add value to the customer, which, in turn, will yield better CBE. These findings extend previous studies that examined the relationship between interactivity and value, as well as CBE (Hari et al., 2021; Carvalho and Fernandes, 2018; De Cico et al., 2020; Rana, 2020).

8.2.3 Information Quality

Customers gain or experience value at multiple touchpoints throughout the customer journey. Chatbots are the initial contact point and constitute an integral part of the customer journey (Kang and Kim, 2021). **H3** examined the relationship between information quality and utilitarian value. The findings of the quantitative studies indicate that the information quality of the chatbot has a significant impact on perceived utilitarian value. The information quality of the chatbot is measured based on the characteristics of the actual information provided by the chatbot to the customer, as well as the extent to which this information meets the customers' needs with respect to reliability, timeliness, relevance and simplicity (Prentice et al., 2020). According to Wang and Teo (2020), high-quality information is easy to find, easy to understand, secure, relevant, complete and personalised. Moreover, previous research suggests that information quality is positively related to customer value in e-commerce (Guo et al., 2012) and usage intention (McLean and Frimpong, 2019) with regards to live chat. The findings of the structural models build on previous research and assert that information quality has a significant impact on utilitarian value in settings where chatbots facilitate customer-brand interaction.

Chatbots can be divided into two categories: informational and transactional. The findings of both the quantitative study and in-depth interviews indicate that customers frequently used chatbots for access to information. Thus, perceptions of utilitarian value will be increased when a chatbot presents high-quality information. According to Wang and Teo (2020), AI-driven applications, such as chatbots and automated conversational tools, must be timely and as accurate as possible when it comes to addressing customer service-related issues. In addition, the information presented by chatbots relating to these service-related issues should be reflective of the customers' requests and needs, ensuring that the interaction adds value to the customer. Previous research in the tourism industry focusing on AI-powered intermediaries in tourism and information quality has indicated that the accuracy of the destination information

presented by Smart Tourist Information Points is of key significance when it comes to tourists' decision-making regarding the destination choice (Garrido et al., 2017). The findings of the current study extend previous research by highlighting the significance of the information quality provided by chatbots and its impact on utilitarian value. Customers expect correctness and timeliness with respect to the information they receive from their brand or provider, especially since AI-driven technologies can be more advanced than humans in collecting and sharing information.

The findings of the in-depth interviews and structural models indicate that the chatbots' information quality plays a key role in influencing the customers' perceptions of value gained during service encounters. The characteristics of the experiencescape (formerly known as the servicescape) set the limits and possibilities of customer knowledge and activities, and hence, the reason for customers constantly seeking information from their brands or service providers. Previous research by Thaichon et al. (2019) indicates that information that is not current or incorrect (low information quality) could lead to a decline in customers' perceptions of value during service encounters. The findings of this study build on this observation by outlining that chatbots with high information quality enhance perceptions of utilitarian value, while those with low information quality decrease perceptions of utilitarian value. An informant outlined that they would stop interacting with the chatbot if it gave them incorrect information. *'I would quickly close the chatbot option if it gave me one wrong result or took me one way that I didn't want to go. So, for me, what's most important is for it to lead me to my desired end result. And you know, if it's taking me somewhere else, I'll stop using the chatbot right away'*. In this case, the chatbot gave the customer incorrect information and guided them to the wrong place. As a result, the chatbot did not add value for the customer because it failed to assist the customer in achieving the end goal.

Information-seeking is an integral part of the experiencescape as it reduces customers' uncertainty and enables them to understand and control service encounters (Pizam and Tasci, 2019). Therefore, when a customer uses a brand's chatbot to obtain certain information or achieve a specific goal and the information fed by the chatbot is correct, it leads the customer to the right place to achieve the intended result. The findings of both the structural model and qualitative study confirm this result. One informant stated, *'Either way, Tobi, the chatbot, can either solve the issue or get you to the place you need to be to get the issue solved, which makes him more efficient than speaking to somebody on the phone, where you're going to*

be consistently put on hold and face other issues like line connectivity and listening to annoying music’.

Based on the findings of the in-depth interviews and structural models presented in Chapter 10, the information quality of a chatbot has a significant impact on utilitarian value. These findings assert that brands and service providers should pay attention to the information quality features of chatbots when implementing them as customer touchpoints. This will ensure that customers gain value from their interaction, which will foster better CBE.

8.2.4 Personalisation

H4 examined the relationship between personalisation and utilitarian value. The findings obtained from the structural models presented in Chapter 10 indicate that personalisation has a significant impact on utilitarian value. With respect to chatbots, personalisation involves providing customers with information, content and services based on their personal data (Tryvainen et al., 2020). For the purpose of this study, personalisation is defined as the addition of personally recognisable cues to the conversation by the chatbot, such as the customer’s name, a personalised greeting and even acknowledgement of the customers’ transactional/order history. In a study focusing on web-based personalised adverts, Winter et al. (2021) argue that personalisation impacts customers’ attitudinal perceptions towards the adverts. Based on the findings of the quantitative study, brands and service providers should pay attention to the personalisation features of chatbots by adding personal cues to enhance the interactional experience. According to Shumanov and Johnson (2021), personal cues are added to facilitate various mechanisms; for instance, personal cues are used to gain customers’ attention. Previous research has illustrated that customers prioritise the processing of their names during customer-brand interactions (Tacikowski and Nowicka, 2010) and respond better to brand-related information that includes their first names as opposed to non-personalised content. In line with this, De Keyzer et al. (2015) state that brands adding personalisation features to their customer touch points influence self-referencing, making the message more self-relevant to the customer, which, in turn, may influence cognitive processing (i.e. CE). Previous research highlights that personalisation cues enhance the customer’s elaboration of the personalised information/message (Tam and Ho, 2015; Maslowska et al., 2016).

The findings of the structural models presented in Chapter 8 extend the literature by examining the relationship between personalisation and utilitarian value. Previous studies did not examine

the relationship between personalisation and utilitarian value, particularly in settings whereby chatbots facilitate service delivery. The customers' perceptions of utilitarian value are enhanced when chatbots provide customers with personalised information.

However, some studies have also illustrated the negative effects of personalisation efforts (Tsang et al., 2014; Yu and Cude, 2017). For instance, Maslowska et al. (2016) find that personalisation influences the customer's evaluation of the interaction but not the outcome variables, such as behaviours. With regards to social media, consumers use these platforms to obtain brand- or service-related information and interact with consumers of other brands (Maslowska et al., 2016). By shifting the focus of this primary goal, the use of personalised adverts could disturb consumers' experiences (Simola et al., 2013), which, in turn, could result in negative consumer responses. Although personalisation may have negative effects in specific contexts, the in-depth interview findings of this study indicate that customers value the personalisation element of chatbots. In addition, the structural models indicate that personalisation has a significant impact on utilitarian value. Therefore, the findings of the in-depth interviews and structural models support each other. During the in-depth interviews, the informants mentioned that the chatbots had the ability to anticipate or identify customer needs through personalisation. For example, one informant said, *'Let's say, judging from the interactions I have had with other companies, I'd say the Amazon chatbot is very good at figuring out quickly what you're talking about. When I open the chatbot, it already knows which product I might have a problem with. Sometimes with other brands, you spend lots of time trying to get them to figure out what it is that you're talking about. (P6)'*

Customers gain value from interacting with chatbots when they have high levels of personalisation because they can quickly anticipate customer needs and gauge what product the customer is referring to when they initiate a query with the chatbot. Not surprisingly, various commentators acclaim the vast potential for engaging customers through automated service interactions (Kang and Kim, 2021; Prentice et al., 2020; Foster et al., 2017; Hollebeek et al., 2021). The findings of this research demonstrate that chatbots play a significant role in narrowing down and fine-tuning customers' needs, which is beneficial in blended service interactions (chatbot and human-service agent), whereby the chatbot feeds information to the human service advisor. Thus, less time is wasted trying to figure out the customer's problem. One participant said, *'I think Tobi, the chatbot, is just more efficient. He cuts out the junk in*

the middle of different prompts. There's no middleman with Tobi; he just gets you where you need to be or solves the issue'.

Overall, the findings of the in-depth interviews and the structural models indicate that personalisation has a significant impact on utilitarian value. In essence, if a chatbot exhibits high personalisation features during a service encounter, the customer will gain more utilitarian value from the interaction. Therefore, it is essential that brands and service providers pay close attention to the personalisation features of their chatbots, as this will yield greater utilitarian value for the customer. It is evident from these findings that the personalisation of chatbots enables the problem-solving process to be quicker, which in turn facilitates better engagement between the customer and the brand.

8.2.5 Utilitarian Value

H5 examined the relationship between utilitarian value and value co-creation. The findings from the quantitative study indicate that utilitarian value has a significant impact on value co-creation. For the purpose of the current study, utilitarian value is defined as the customers' assessment of the chatbot's functional value during the service encounter. With the increasing emergence of automated service interactions, it is essential for chatbots to exhibit a functional value for the customer. Jeon et al. (2020) assert that perceived value increases when the perceived functional benefits of an interaction exceed the perceived sacrifice (i.e. time and effort).

Previous research has indicated that utilitarian value is a key driver of repurchase intention (Bernado et al., 2018; Bridges and Floresheim, 2019; Lee et al., 2019). In addition, utilitarian value has been found to be positively related to customer behavioural intentions (Ryu et al., 2018; Ha and Jang, 2016). However, no studies have examined the relationship between the utilitarian value of chatbots and value co-creation. Customers have a specific utilitarian goal when they seek brand/service-related information and engage in an interaction with a chatbot. Based on the findings of the in-depth interviews, customers recognise chatbots as useful sources of information to achieve their end goal. One informant stated, *'It has been very helpful to use a chatbot because straight away, it guides me and gives me the information that I'm searching for'.*

Thus, if a chatbot exhibits elevated levels of functionality for the customer, perceptions of utilitarian value will be enhanced, leading to value co-creation. This finding is in accordance with Castillo et al. (2020), who state that interacting with functional chatbots enables the

customer to achieve their desired service-related outcome, leading to an experience of value co-creation.

However, chatbots are limited in their functionality. Castillo et al. (2020) state that despite chatbots being powered by AI, in some cases, they offer the customer limited assistance during the service encounter. Therefore, **H6** examined the relationship between utilitarian value and value co-destruction. The findings of the structural model indicated that utilitarian value has a significant impact on value co-destruction. In essence, if a chatbot exhibits low functionality, it is perceived as not adding any utilitarian value to the customer, resulting in value co-destruction.

Tsarenko et al. (2019) suggest that firm representatives failing to understand customers' needs or queries leads to feelings of frustration and anger, which, in turn, may lead to an experience of value co-destruction. This would also be the case during automated service interactions. In instances where chatbots do not meet functionality expectations, customers will automatically opt to speak to a human service representative as opposed to a chatbot, as reflected in the findings from the in-depth interviews. One respondent mentioned that they would shut down the chatbot immediately if it gave them one wrong result. ***'I would quickly close the chatbot option if it gave me one wrong result or took me one way that I didn't want to go. So, for me, what's most important is for it to lead me to the result. And you know, if it's taking me somewhere else, I'll stop using the chatbot right away and speak to a human'***. In this case, the customer experiences value co-destruction from their interaction with the chatbot as it is incompetent when it comes to solving the customer's problem.

Overall, the findings of this study indicate that brands and service providers must pay attention to the functionality features of chatbots. Doing so will enhance perceptions of utilitarian value, which, in turn, will lead to customers experiencing value co-creation and better CBE. Castillo et al. (2020) note that customers attribute functionality issues of chatbots to the service provider. This does not reflect well on brands or service providers; hence, it is critical to ensure that chatbots are designed and implemented with high functionality, adding value for the customer and facilitating enhanced CBE.

8.2.6 Comprehension

H7 examined the relationship between comprehension and value co-creation. The findings of the quantitative study indicate that comprehension has a significant impact on value co-creation. In essence, chatbots with high levels of comprehension drive experiences of value co-

creation. Through enhanced levels of comprehension, brands' chatbots can perform tasks that human service representatives would normally perform. In addition, these tasks would be carried out at a much faster speed and with more accuracy, with less possibility of making errors in comparison to human service agents. The quantitative findings underscore that it is essential for brands or service providers to acknowledge that the comprehension features of chatbots are not merely a matter of automation and standardised processes but of successful and deep machine learning (Hollebeek et al., 2021).

Mele et al. (2018) suggest that AI-driven technologies aim to create extraordinary opportunities for brands and customers due to their elevated ability to solve service-related tasks. Researchers view such technologies as strong facilitators of the value co-creation experience that emerge from successful and efficient customer-brand interactions (Huang and Rust, 2021; Van Doorn et al., 2017). Chatbots that have a high level of comprehension are a catalyst for value co-creation as they create human-machine interactions based on in-depth knowledge of human needs, habits, preferences and emotions.

The findings of the quantitative study build on the findings of the qualitative study. Although customers may not expect the chatbot to fully resolve their problems or issues (Castillo et al., 2020), they do expect, at a minimum, that they are able to understand the context of their questions and provide adequate guidance. This is reflected in the qualitative findings of the current study. One participant stated, *'Either way, Tobi, the chatbot, can answer all of your questions, solve the issue or get you to the place you need to be to get the issue solved, which makes him more efficient than speaking to somebody on the phone where you're going to be consistently put on hold and face other issues like line connectivity and listening to annoying music'*.

Accordingly, chatbots with a high comprehension can address all customer-related queries and signpost the customer throughout the service encounter. Such an experience leads to value creation and drives CBE.

However, not all chatbots have a high level of comprehension. In line with Huang and Rust (2021), some brands and service providers simply believe that chatbots are a case of automation and standardisation, failing to comprehend customer-related queries. **H8** examined the relationship between comprehension and value co-destruction. The findings of the quantitative study indicate that comprehension has a significant impact on value co-destruction. In other

words, if chatbots demonstrate low comprehension, customers will experience value co-destruction during the service encounter.

A recent study by Castillo et al. (2020) indicates that incomprehension of customer queries or requests leads to feelings of frustration and anger. This finding suggests that when chatbots fail to understand customer needs or contribute towards solving the service-related issue the customer faces, customers experience value co-destruction, thus weakening the customer-brand relationship. The findings of the quantitative study build on the findings of the in-depth interviews.

Given their experiences with chatbot incomprehension, some customers automatically prefer to speak to human service representatives. One participant said, *'If Tobi doesn't understand my question, I'll stop speaking to him and request to speak to a human instead'*. Instances where customers encounter chatbots that are inefficient due to their failure to comprehend customer requests/questions will result in value co-destruction and potentially affect the customer-brand relationship negatively.

Both the quantitative and qualitative findings of this study prove the significance of the comprehension features of chatbots. With enhanced comprehension features, brands' chatbots can drive experiences of value co-creation and avoid yielding experiences of value co-destruction, leading to stronger customer-brand relationships and better CBE.

8.2.7 Empathy

H9 examined the relationship between empathy and value co-creation. The quantitative findings of the study indicate that empathy has a significant effect on value co-creation. In essence, chatbots exhibiting highly empathetic features or characteristics will generate experiences of value co-creation. Peleau et al. (2021) define empathy as a combination of emotional reactions and the processing of customers' experiences and feelings. With respect to chatbots, empathy refers to the chatbots' ability to understand or anticipate customer feelings and respond accordingly.

The findings of this quantitative study prove the importance of empathy in customer-brand interactions mediated by chatbots. Iglesias et al. (2019) state that given the significance of the mutual understanding between customers and service agents during service encounters, empathy is a critical construct within CE and the service industry. Empathetic service agents will facilitate more interactive experiences with customers; thus, the customers' needs and desires are more likely to be fulfilled (Pelau et al., 2021). This will result in the formation of

enduring and positive memories associated with interacting with a brand (Simon, 2013). The quantitative findings of this study are consistent with this result. Chatbots that acknowledge customer emotions and respond accordingly make the service encounter more pleasant, beneficial and memorable. As a result, chatbots facilitate customers' experience of value co-creation, thereby strengthening the customer-brand relationship.

A prominent level of empathy among chatbots is likely to influence the acceptance of chatbots by customers for service delivery. This is in line with the research of Ashfaq et al. (2020). Considering that automated technologies driven by AI can tailor customer experiences and offerings based on customer data, chatbots should have the ability to focus on the specific needs of customers, demonstrate a high level of empathy, achieve value creation for the customer and foster better CBE. During the in-depth interviews, a respondent highlighted that the chatbot was always polite and consistent. *'I really enjoy speaking with Tobi. He's always very nice to me, and he doesn't ever change when I speak to him. He also greets me and does what he's meant to do, which is to get me to the right place'*.

Accordingly, the chatbot demonstrates empathy throughout the interaction by being polite. As a result, the customer has a positive and memorable experience from the interaction with the chatbot. Such experiences drive value co-creation and strengthen customer-brand relationships whilst enhancing CBE.

However, not all chatbots demonstrate empathy during service encounters. Conversely, **H10** examined the relationship between empathy and value co-destruction. The quantitative findings indicate that empathy has a significant impact on value co-destruction. In other words, chatbots with low consideration of customer emotions lead to customers experiencing value co-destruction. Castillo et al. (2020) state that customers become 'emotionally charged' when chatbots fail to acknowledge their feelings with respect to a product- or service-related issue. Huang and Rust (2021) state that automated technologies should not imply standardisation (one size fits all) for the customer because this leads to the formation of customer dissatisfaction. Human service representatives who fail to recognise customers' needs and emotions create a negative customer experience, destroying value for the customer and weakening customer-brand relationships. This was reflected in the findings of the in-depth interviews when comparing human service agents and chatbots in terms of empathy. One informant said, *'I spoke to an Amazon agent two weeks ago about initiating an exchange even though the guarantee on the item had expired, and they had said it wouldn't be a problem. Then, the*

day I was ready to do so, I spoke to another Amazon human agent, and they told me they wouldn't be able to process the exchange. It was frustrating, and it became a text argument between me and the customer service representative. I had to send them screenshots of the previous chat for evidence. I felt like I had done something wrong even though I was entitled to this exchange. (P8)'

In this instance, the lack of empathy leads to an experience of value co-destruction. A similar encounter with chatbots would also lead to value co-destruction. While some chatbots may exhibit a low level of empathy, they would not be unempathetic to the extent that an argument may be facilitated. The qualitative and quantitative findings of this study indicate the importance of empathy in the value co-creation process of customer-brand interactions mediated by chatbots. It is essential that brands and service providers pay attention to the empathy features of chatbots to avoid value co-destruction as such experiences have the potential to facilitate a decline in CBE. With the increasing trend of AI-driven technologies becoming a key customer touchpoint, Pelau et al. (2021) highlight the need for empathetic chatbots within the service industry. Doing so may lead to customers perceiving brands as more caring and thoughtful.

8.2.8 Value Co-creation

H11 examined the relationship between value co-creation and CBE. The findings of the quantitative study show that value co-creation has a significant impact on CBE. In this sense, value co-creation refers to the interaction between the customer and the brand via the chatbot (a brand's resource) to generate positive outcomes. CBE focuses on the customer's psychological, affective and physical (behavioural) involvement with the brand following their interaction with a chatbot. In essence, customers' experience of value co-creation through the brands' chatbots will yield better CBE.

The advancement of chatbots has drawn attention towards CBE (Kang and Kim, 2021; Huang and Rust, 2021) because chatbots offer customers an interactive, convenient and value-creating interactional experience with the brand (Ahn et al., 2019). The findings of the current study indicate that brands' chatbots should have high functionality, high interactivity, social presence, high personalisation and high empathy. These features will drive value co-creation, thereby enhancing CBE. By paying attention to these chatbot features, brands can strengthen the relationships they have with their customers.

The findings of this study indicate that personalised interactional experience is delivered when chatbots acknowledge customer preferences and send personalised messages. This personalisation enables value co-creation by arousing customers' interest in reading about the brand, thereby driving their intention to engage with the brand further (Cheung et al., 2020). With regards to the use of social media, Seifert and Kwon (2019) suggest that electronic word of mouth on these platforms demonstrates customers' prior experience, which attracts other customers and drives customer-to-customer interactions, generating online conversations about the brand. In addition, the use of interactive brand posts invites customers to actively partake in brand-related activities and discussions on social media platforms. Once customers experience value co-creation facilitated by chatbots, it is likely that they will exhibit similar CE behaviours.

During the in-depth interviews, an informant highlighted that their brand's chatbot created more value for them in comparison with other brands' chatbots, demonstrating enhanced CBE. One informant stated, *'Judging from the interactions I have had with other brands' chatbots, I'd say the Amazon chatbot is very good at figuring out quickly what you're talking about. Sometimes, with other brands, you spend lots of time trying to get them to figure out what it is that you're talking about'*.

Customers feel that the chatbots create value and strengthen the customer-brand relationship, thereby enhancing brand recall. Researchers have highlighted the need to better understand the antecedents of CBE (Hollebeek, 2018; Gavilanes et al., 2018). Hsieh and Chang (2016) find a positive relationship between value co-creation activities and CBE. The quantitative findings of this study extend the literature by asserting that value co-creation is an antecedent (influence) of CBE, specifically in evolved service settings, whereby chatbots mediate customer-brand interactions. In essence, value co-creation is a catalyst for CBE. Thus, customers interacting with chatbots that facilitate the value co-creation process enhances customer-brand relationships, thus evoking CBE.

8.2.9 Value Co-destruction

H12 examined the relationship between value co-destruction and CBE. The findings of the structural model indicate that value co-destruction has a significant impact on CBE. In essence, the customers' experiences of value co-destruction with the chatbot will lead to a decline in CBE. Van Doorn et al. (2017) suggest that the use of interactive technologies for service delivery can lead to negative outcomes.

Recent research has studied the negative effects and outcomes of technology in the servicescape. Kirova (2021) conducted a study focusing on wine expositions, and tourists indicated that the use of interactive technology during these expositions had a range of negative effects on the perceived value of the experience. For instance, it was found that visitors emphasised that their feelings of brand engagement were associated with being able to follow their own preferred route, without any constraints, as opposed to the route being recommended by the smart tour device. Tussyadiah et al. (2018) examine the impacts of interactive avatars on online gaming and reveal that the game was perceived to be slow and boring if the avatars were not interactive. The quantitative findings of this study build on both of these studies by examining the relationship between value co-destruction and CBE in chatbot-enabled service settings. Chatbots that yield experiences of value co-destruction do not provide a good interactional experience for the customer, thereby weakening the customer-brand relationship and resulting in a reduction in CBE.

The quantitative and in-depth interview findings of this study indicate that a decline in CBE is facilitated by customers' experience of value co-destruction during service encounters. This co-destructive experience is driven by the characteristics of the chatbot, specifically its social presence, interactivity, information, quality, personalisation, comprehension, empathy and utilitarian value. Therefore, it is essential for brands and service providers to pay close attention to these characteristics to avoid creating experiences of value co-destruction, which, in turn, can lead to a decline in CBE. Castillo et al. (2020) assert that customers attribute the characteristics of chatbots to brands.

Overall, the quantitative findings of this study extend the literature by indicating that CBE will either be enhanced or weakened depending on the features of the chatbots. Brands that fail to pay attention to these features will not yield positive customer-brand interactions and will fail to create value for the customer. Therefore, it is evident that experiences of value co-destruction weaken CBE, specifically in settings where chatbots facilitate customer-brand interaction.

8.3 Examining CBE Outcomes

CBE-fostered customer-brand interactions mediated by technology lead to distinct outcomes or consequences. Previous research has examined satisfaction, word of mouth, trust and commitment as outcomes of CBE in virtual social communities (Carvahlo and Fernandes, 2018), self-brand connection and brand usage intent (Hollebeek et al., 2014; Harrigan et al.,

2018) in social media, brand relationship quality in social media (Mar et al., 2019) and evangelism and brand defence in social media brand-based communities (Sharma et al., 2022).

A recent study by Hari et al. (2021) examines customer satisfaction and brand usage intention as outcomes of CBE fostered through chatbots on banking. Despite this study, little is known about the CBE outcomes that occur following human-machine (chatbot) interactions. Thus, this research extends the CBE literature by examining continuance intention (with the chatbot) and brand usage intention as outcomes of CBE in automated service settings.

Table 8.3 Customer Brand Engagement Outcomes

Variable	Definition	Source
Brand Usage Intention	A customer’s intention to continue using a brand following the adoption phase.	Hollebeek et al., 2014
Continuance Intention	A customer’s intention to continually use an interface.	Amoroso and Lim, 2017

8.3.1 Brand Usage Intention

H13 examined the relationship between CBE and brand usage intention. The findings of the quantitative study indicate that CBE has a significant impact on brand usage intent. In essence, CBE fostered through chatbots drives customers’ intentions to use the brand.

Harri (2018) confirms the relationship between CBE and brand usage intent. The findings suggest that as levels of engagement with tourism social media websites increase, the consumer’s intention to use the site again correspondingly increases. Therefore, low levels of engagement with the brand lead to poor intentions to use the brand again. This research extends the findings of previous studies focusing on augmented-reality apps, live chats, mobile apps and mobile commerce (McLean and Frimpong, 2017; Thakur, 2019; Pansari et al., 2019; Thakur, 2018), highlighting the ability of technology to significantly influence CBE. In line with recent research (Vega, 2021; Hollebeek et al., 2021; McLean and Wilson, 2019), the findings of this study confirm that CBE fostered through brand chatbots positively influences brand usage intention. Therefore, brand usage intention should be considered when assessing the success of a chatbot.

8.3.2 Continuance Intention

H14 examined the relationship between CBE and continuance intention. The quantitative findings of this study indicate that CBE has a significant impact on continuance intention. In

other words, CBE fostered through the brands' chatbots drives customers' intentions to continue using the chatbot for service delivery or accessing brand-related information. With the emergence of AI, brands have been implementing chatbots as key customer touchpoints with beneficial outcomes, such as rapid service delivery, enhanced personalisation and enhanced CBE (Hollebeek et al., 2021).

The quantitative findings of this study extend the literature by asserting that continuance intention is a key benefit of CBE facilitated by chatbots. Chatbot continuance intention represents the changes in customers' usage behaviours over time (Qing and Haiying, 2021). Through constant usage of chatbots, firms can comprehensively monitor customer behaviours and enable more personalised service delivery. Moreover, the continued use of chatbots will drive customer loyalty to the brand. Previous studies have examined continuance intention with regards to mobile commerce, mobile apps and branded apps (McLean et al., 2020; Qing and Haiying, 2021; Fang, 2017a; Li and Fang, 2019). The quantitative findings of this study extend the literature by examining continuance intention with regards to chatbots. The ability to offer enhanced CBE is dependent on the efficiency and value co-creating potential of the chatbot.

Overall, chatbots are designed to enhance customer-brand relationships. Thus, the quantitative findings of this study suggest that when customers have value co-creating experiences with chatbots, their overall engagement with the brand increases and motivates them to continue using the chatbot. Once customers experience positive emotions from interacting with the chatbot, they are expected to develop long-term connections with the brand and continuously use the chatbot. Moreover, once there is an increase in the degree of satisfaction customers experience, as well as time and energy spent using the chatbot, the likelihood of long-term adoption also increases. Therefore, continuance intention should be evaluated when assessing the success of a brand or service provider's chatbot.

8.4 Examining the Reasons Why Customers Use Brands' Chatbots

Previous research is yet to provide insight into customers' reasons for using chatbots. This study extends the services literature by examining customers' reasons for using chatbots with respect to social presence, interactivity, information quality, personalisation, utilitarian value, empathy, comprehension, value co-creation and value co-destruction. A total of six reasons why customers choose to use chatbots were examined in this study. These reasons include the following: (1) to locate information the customer cannot find on the website; (2) to obtain

information quickly; (3) to process a refund/return; (4) to get a personalised deal or experience; (5) to raise a query or problem and (6) to get connected to a human service representative.

First, the findings of the structural model indicate that customers who use a chatbot ‘to locate information they cannot find on the website’ perceive the chatbot as having higher levels of information quality and comprehension than when the chatbot is used ‘to get connected to a human service representative’. In essence, this group of customers assumes that their brands’ chatbots will always have accurate information and have the ability to understand their service-related query/issue.

Second, customers who use a chatbot ‘to obtain information quickly’ consider their brands’ chatbot as having higher levels of information quality, interactivity and social presence than when the chatbot is used by the customer ‘to get connected to a human service representative’. This group of customers believes that their brands’ chatbots provide high-quality information and respond to them as quickly as possible whenever needed.

Third, customers who use a chatbot ‘to process a refund or return’ and ‘to get a personalised deal’ perceive their brand’s chatbot as having a higher utilitarian value than when the customer uses the chatbot ‘to get connected to a human service representative’. This group of customers indicates that their brand’s chatbot is functional enough to enable the customer to achieve their end goal of getting a personalised deal or processing a refund/return, thereby facilitating experiences of value co-creation.

In addition, customers who use a chatbot ‘to raise a query or a problem’ view the chatbot as having higher levels of information quality, personalisation and utilitarian value than when customers use their brand’s chatbot ‘to get connected to a human service representative’. This group of customers trusts that their chatbot can provide them with accurate information and anticipate their service-related needs based on customer data, thereby offering greater functional (utilitarian) value for the customer. These customers also believe that the chatbot will be functional enough to address their query or problem.

Customers who use a chatbot ‘to get connected to a human-service representative’ view their brand’s chatbot as having lower levels of comprehension, empathy and interactivity than when customers use their brand’s chatbot ‘to locate information they cannot find on the website’, ‘to obtain information quickly or ‘to process a refund/return’. In essence, this group of customers prefers speaking to human service representatives because they believe that their brands’ chatbots will not be able to comprehend their service-related needs. In addition, these

customers perceive that their brands' chatbots will not be able to offer them the emotional support (empathy) they need during the service encounter. Moreover, these findings suggest that some customers believe that chatbots are not as responsive or collaborating (interactive) in conversations as human service representatives. This group of customers prefers the human-to-human interaction element of the service encounter as opposed to the human-machine interaction element.

With respect to value co-creation, customers who use the chatbot to locate information they cannot find on the website perceive their brands' chatbots as having a higher value co-creation potential than when the chatbot is used to process a refund or exchange. This suggests that customers will have a higher likelihood of experiencing value co-creation when they use their brand's chatbot to locate information they cannot find on the website than when they use the chatbot to process a refund or return. This observation may be due to the fact that efficient chatbots are often used by brands and service providers to guide customers during service encounters, particularly when they seek brand- or service-related information. This is represented in the qualitative findings of this study. With respect to value co-destruction, when customers use chatbots 'to obtain information quickly', they are less likely to experience value co-destruction than when customers' use their brand's chatbot 'to get a personalised deal or experience'.

8.5 Conclusion

This chapter presented a discussion of the findings of the quantitative study and exploratory in-depth interview in relation to the research objectives and theoretical grounding of this study. First, the chapter revisited the customers' perceptions of the impact of automated technology on their experience of value co-creation and value co-destruction. The in-depth interviews revealed that the customers' experiences of value co-creation and value co-destruction were dependent on the key characteristics of chatbots. A total of seven key chatbot characteristics were identified and then translated into variables through literature. These characteristics are presented in Table 8.1. Based on the findings of the in-depth interviews, each of these seven characteristics plays a distinct and integral role in determining how customers perceive the impacts of brands' chatbots on value co-creation and value co-destruction. These findings bridge the gap in the value co-creation literature by offering insights into the value co-creating and value co-destructing potentials of chatbots.

Thereafter, the chapter discussed the variables influencing CBE in settings where chatbots mediate customer-brand interaction. A total of nine variables were examined. These nine variables are presented and defined in Table 8.2. These variables are derived from the in-depth interviews and the literature. The findings of the two separate structural models presented in Chapter 9 indicate that the nine variables are drivers of value co-creation, value co-destruction and CBE. The findings obtained from this quantitative study assert that brands and service providers need to pay close attention to these nine variables when implementing chatbots., which will enable value co-creation experiences. With these nine variables in mind, brands and service providers may avoid creating experiences of value co-destruction, thereby strengthening customer-brand relationships and enhancing CBE. The current study is the first to examine the variables influencing CBE in retail and service provider settings where chatbots facilitate the interaction between the customer and the brand. The findings of this study assert that when implemented in line with these nine variables, chatbots are a catalyst for CBE. Understanding the linkages between AI and CBE has implications for optimising firm performance manifested in customer-brand-related outcomes (Prentice et al., 2021).

Moreover, the chapter presented a discussion of the outcomes that occur following CBE fostered using brands' and service providers' chatbots. Two variables were examined as outcomes of CBE: brand usage intention and continuance intention. These two variables are presented and defined in Table 8.3. The findings of the quantitative study suggest that high

levels of engagement with a brand will enhance consumers' intentions to use the brand again. Similarly, high levels of engagement with the brand will motivate consumers to continually use the chatbot for service delivery. The findings of this study extend the literature by asserting that brand usage intention and continuance intention play an integral role in assessing CBE facilitated by brands' or service providers' chatbots. Finally, the chapter examined the reasons why customers use chatbots during service encounters. The findings indicate that customers who use the chatbot to locate information they cannot find on the website perceive their brands' chatbots as having a higher value co-creation potential than when the chatbot is used to process a refund or exchange. This finding suggests that customers will have a higher likelihood of experiencing value co-creation when they use their brand's chatbot to locate information they cannot find on the website than when they use the chatbot to process a refund or return. In essence, chatbots are an efficient value co-creation tool when they help the customer find brand- or service provider-related information.

Chapter 9

Conclusion

9.0 Introduction

This chapter presents the conclusions drawn from this research. The chapter begins by providing a conclusion for the four proposed research objectives. Thereafter, this chapter illuminates the theoretical contributions of this research. Subsequently, the chapter outlines the managerial implications, particularly the impact of this research on brands and service providers. Lastly, this chapter outlines opportunities for future research and narrows in on specific research avenues for future studies.

9.1 Conclusion for Objective 1

The first research objective was to *'Explore how customers perceive the impact of brands' automated technology on their experience of value co-creation and value co-destruction'*.

In relation to research objective 1, the research concludes that customers' experience of value co-creation or value co-destruction is largely dependent on the characteristics of the chatbots they interact with. Prior to this research, little was known about the value co-creating or value co-destructing potentials of automated technologies (chatbots). Thus, in-depth interviews were conducted to provide insights into customers' interactional experiences with chatbots while unearthing customers' perceptions of value co-creation and value co-destruction. This study reveals six chatbot characteristics that account for customers' perceptions of value co-creation and value co-destruction. The study concludes that social presence, information quality, personalisation, control, comprehension and empathy are the chatbot characteristics that influence customers' experiences of value co-creation and value co-destruction when they interact with their brands' or service providers' chatbots. This finding may be due to the goal-directed and utilitarian nature of chatbots. Value co-creation is experienced if customers are able to achieve their service-related goals with the chatbot. Conversely, the customer experiences value co-destruction if they are not able to achieve their service-related goals using the chatbot.

Previous research has predominantly focused on how automated technologies enable resource integration between service providers and beneficiaries (customers) (Wirtz et al., 2018; Huang and Rust, 2020; Paschen et al., 2020; Castillo et al., 2021; Verma and Yadav, 2020; Payne et al., 2021; Toscher, 2021; Leone et al., 2021), as well as how automated technologies/robots support beneficiaries' well-being (Caic et al., 2019; Mele et al., 2021a; Mele et al., 2021b; Jain

et al., 2021). However, the literature falls short when it comes to highlighting the impacts of these novel automated technologies on customers' experiences of value co-creation and value co-destruction. This study advances previous value co-creation and value co-destruction literature by revealing how value is co-created and co-destroyed in settings where chatbots facilitate customer-brand interactions in value-based service networks.

Recent studies have explored the relationship between social presence and value co-creation (Nadeem et al., 2021; Su et al., 2021; Lei et al., 2020; Caic et al., 2019). However, these studies are constrained to social media, social networking, online brand communities, instant messaging, social commerce and service robots in care networks. McLean and Frimpong (2019) examine the relationship between social presence and the use of intelligent in-home voice assistants. The current study extends the existing literature by linking social presence with both value co-creation and value co-destruction in settings where chatbots facilitate customer-brand interactions. The findings of this study indicate that social presence is a catalyst for value co-creation. In addition, the findings of this study posit that brands and service providers need to pay attention to the social presence features of their chatbots to drive customers' experiences of value co-creation. A chatbot with a high level of social presence will be able to provide the customer with instantaneous support, offering the customer an opportunity to interact with the brand at any given time. In addition, the chatbot will respond to the customer as quickly as possible, allowing the customer to achieve their service-related goal quicker. Therefore, the former and the latter will facilitate customers' experiences of value co-creation. Meanwhile, the customer will likely experience value co-destruction if the chatbot does not possess a high level of social presence and fails to respond to the customer when needed.

In relation to information quality, the findings of this study conclude that the customer will experience value co-creation if the chatbot has high information quality. Conversely, the customer will likely experience value co-destruction if the chatbot has low information quality. Previous research has explored the interplay between information quality and perceived value. However, research has been constrained to online travel, purchase and tourism (Ponte et al., 2015; Ali et al., 2019), e-government (Li and Shang, 2020), social commerce (Molinillo et al., 2021) and food delivery apps (Lee et al., 2019). This study contributes to the existing literature by linking information quality with both value co-creation and value co-destruction in settings where chatbots facilitate service delivery. In essence, if a chatbot has high information quality and guides the customer to the right place to solve their issue, the customer will be able to

achieve their service-related goal with less effort, resulting in the customer experiencing value co-creation. Conversely, if the chatbot does not guide the customer to the right place to achieve their service-related goal, the customer will experience value co-destruction.

With respect to personalisation, the findings of this study conclude that chatbots portraying high levels of personalisation drive experiences of value co-creation. Conversely, chatbots showing low levels of personalisation facilitate experiences of value co-destruction. Recent studies have explored the relationship between personalisation and value co-creation. However, this research has focused on smart servicescapes (Roy et al., 2019), dialogical conferences (Parkinson and Davey, 2020), communication technologies in tourism (Volchek et al., 2021) and the digitalisation of financial services (Payne et al., 2021). This study extends the literature by linking personalisation with both value co-creation and value co-destruction in service environments where chatbots mediate the interaction between customers and brands or service providers. In essence, chatbots that acknowledge the customer by name and anticipate customer needs based on customer data will yield experiences of value co-creation. Conversely, if the chatbot fails to acknowledge the customer by name and anticipate customer needs, customers would perceive the chatbot as being generic, and such perceptions may affect the progress of the interaction and result in customers' experiences of value co-destruction.

In relation to perceived control, the findings of this study conclude that a chatbot providing the customer more control over the service encounter facilitates experiences of value co-creation. On the other hand, a chatbot that offers the customer less control over the interaction may yield experiences of value co-destruction. Recent studies have explored the relationship between perceived control and value co-creation. However, these studies have predominantly focused on online communities (Priharasari and Abedin, 2021), social commerce (Wang et al., 2020), cognitive (smart) technologies in decision-making (Mele et al., 2021) and gamification (Merhabi et al., 2021). This study extends the existing literature by demonstrating the relationship between perceived control and both value co-creation and value co-destruction with respect to chatbots. This study asserts that brands' and service providers' chatbots should allow the customer to have more control than the chatbot during the service encounter. The interaction should focus more on what the customer needs as opposed to the chatbot forcing options upon the customer. While it is important for chatbots to anticipate customer needs, it is also essential for chatbots to give customers enough room to present their needs during service encounters.

With regards to comprehension, the findings of this study conclude that chatbots that demonstrate high levels of comprehension (understanding) with regards to customer queries yield customer experiences of value co-creation. On the other hand, chatbots that fail to understand (comprehend) customer-related service issues drive experiences of value co-destruction. Recent research has explored the relationship between comprehension and value co-creation, but they focused on employee comprehension in different service settings (Cossio-Silva et al., 2016; Boadi et al., 2021). A recent study by Castillo et al. (2021) focuses on the dark side of AI interactions and explores the relationship between comprehension and value co-destruction. This study extends the existing literature by linking comprehension with both value co-creation and value co-destruction in settings where chatbots facilitate customer-brand interactions. This study concludes that brands' and service providers' chatbots should exhibit high levels of comprehension to enable the customer to achieve their service-related goal, thereby engendering value co-creation. Chatbots that exhibit low levels of comprehension will drive value co-destruction. In some cases, customers will automatically avoid interacting with a chatbot because the chatbot has never been able to understand the customer's query or needs.

In relation to empathy, the findings of this study conclude that chatbots exhibiting high levels of empathy to the customer yield value co-creation. Conversely, chatbots that show low levels of empathy influence value co-destruction. Recent research has explored the relationship between empathy and value co-creation. However, the research has been constrained to online channels (Zhang et al., 2018), the retail environment (Delpechitre et al., 2018) and the service experience (Tan et al., 2021). The findings of this study contribute to the literature by linking empathy with both value co-creation and value co-destruction. The findings conclude that brands' and service providers' chatbots should be empathetic and display some form of emotions to the customer during service encounters. Customers will thus perceive the chatbot as being more genuine, thereby driving value co-creation. On the other hand, if the chatbot fails to be empathetic, particularly in situations where the customer is frustrated, this may yield feelings of anger and greater frustration, thereby driving value co-destruction. In conclusion, the findings of this study posit that social presence, information quality, perceived control, personalisation, comprehension and empathy are responsible for how customers experience value co-creation and value co-destruction when they interact with brands' or service providers' chatbots.

9.2 Conclusion for Objective 2

The second research objective was to *'Examine the variables influencing CBE when customers interact with brands' automated technology'*.

In relation to research objective 2, it is concluded that nine variables play a role in influencing CBE in settings where chatbots facilitate customer-brand interactions. A review of the CBE literature unveiled that numerous variables are capable of influencing CBE. However, exploratory in-depth interviews were conducted to provide the study with parsimony and comprehensiveness (Wilson, 2006). Thus, the variables examined were derived from exploratory in-depth interviews and the literature. The variables that influence CBE are social presence, interactivity (consisting of control and responsiveness), information quality, personalisation, utilitarian value, empathy, comprehension, value co-creation and value co-destruction.

While there is a new and emerging body of literature on automated service interactions and CBE (Shumanov and Johnson, 2021; Tsai et al., 2021; Hollebeek et al., 2021; Huang and Rust, 2021; Moruichi et al., 2021), little is known about the variables that influence CBE when customers interact with automated technologies, specifically chatbots. The current study extends the CBE literature by being the first to examine the variables influencing CBE fostered through automated service interactions.

The findings of this study conclude that social presence, interactivity, information quality and personalisation all have an effect on utilitarian value. Previous studies have examined the relationship between social presence and utilitarian value (Caic et al., 2020; Fang et al., 2018), interactivity on utilitarian value (Tsai et al., 2021), information quality and utilitarian value (Wu et al., 2018; Kumar and Kashyap, 2018) and personalisation and utilitarian value (Mieli and Zillinger, 2020). However, these studies have been constrained to social media, online communities, mobile commerce, social commerce and mobile banking platforms. This study extends the literature by revealing the impacts of these four variables on utilitarian value in settings where chatbots facilitate customer-brand interaction. In conclusion, a chatbot with high levels of social presence, interactivity, information quality and personalisation will be perceived as having a high utilitarian value and more functional for the customer. Conversely, a chatbot exhibiting low levels of social presence, interactivity, information quality and personalisation will be considered as having low utilitarian value and less functional for the customer.

In addition, this study concludes that utilitarian value influences both value co-creation and value co-destruction. Previous studies have examined the relationship between utilitarian value and value co-creation. However, these studies have focused on human-to-human interaction service settings (Pandey and Kumar, 2020), social media (Dolan et al., 2019) and mobile banking platforms (Payne et al., 2021). This study extends the literature by illustrating the impact of utilitarian value on both value co-creation and value co-destruction in service environments where chatbots facilitate service delivery. This study concludes that a chatbot with high utilitarian value will lead to the customer experiencing value co-creation. Conversely, a chatbot with low utilitarian value (e.g., low functionality) will result in the customer experiencing value co-destruction.

Furthermore, this study concludes that comprehension has a moderating effect on both value co-creation and value co-destruction. Recent research has examined the relationship between comprehension and value co-creation. However, these studies have been constrained to service settings (Cossio-Silva et al., 2016; Boadi et al., 2021), except for Castillo et al. (2021), who focus on chatbots. In conclusion, if the chatbot exhibits an elevated level of comprehension with regards to the customer's service-related issue, the customer will experience value co-creation, which, in turn, will enhance CBE. Conversely, if the chatbot shows a lack of comprehension with regards to the customer's queries, the customer will experience value co-destruction, leading to a decline in CBE. Similarly, the findings of this study conclude that empathy has a moderating effect on both value co-creation and value co-destruction. Therefore, if a chatbot portrays prominent levels of empathy, the customer will experience value co-creation, resulting in enhanced engagement with the brand. However, if a chatbot demonstrates a lack of empathy throughout the duration of the service encounter, the customer may experience value co-destruction, which, in turn, will result in the customer engaging less with the brand.

Moreover, the findings of this study conclude that value co-creation and value co-destruction influence CBE. Recent research has examined the relationship between value co-creation and CBE, but the focuses were tourism (Nangapire et al., 2021; Lin et al., 2018; Yen et al., 2020), service ecosystems (Alexander and Jaakkola, 2015) and social media (Merrilees, 2016; Zhang et al., 2018). In addition, there is a dearth of research examining the relationship between value co-destruction and CBE; previous studies have been constrained to social media (Quach and Thaichon, 2017; Zhang et al., 2018) and tourism (Nangapire et al., 2021). This study extends the literature by demonstrating the impacts of value co-creation and value co-destruction on

CBE in value-based service networks where chatbots facilitate customer-brand interactions. Therefore, when customers experience value co-creation because of their interactions with a chatbot, the customers' engagement with the brand is enhanced. On the other hand, when customers experience value co-destruction following their interactions with a chatbot, the customers' engagement with the brand decreases.

In conclusion, social presence, interactivity, information quality, personalisation, utilitarian value, comprehension, empathy, value co-creation and value co-destruction all play an integral role in influencing CBE when customers interact with brands' and service providers' chatbots within value-based service networks.

9.3 Conclusion for Objective 3

The third research objective was to *'Examine the CBE outcomes that occur when customers interact with brands' automated technology'*.

In relation to research objective 3, it is concluded that CBE has a significant effect on brand usage intent when customers interact with brands' chatbots. Previous research has examined the relationship between CBE and brand usage intent. However, these studies mainly focused on social media (Hollebeek et al., 2014; Harrigan et al., 2018), online reviews (Thakur, 2018), augmented-reality apps (McLean and Wilson, 2019; Qin et al., 2021), live chat (McLean and Frimpong, 2017) and mobile commerce (Pansari et al., 2019; Thakur, 2018). This study extends the CBE literature by demonstrating the impact of CBE on brand usage intent when customers interact with brands' chatbots. In conclusion, as engagement with the brand increases following interaction with a chatbot, the customers' intent to use the brand again will correspondingly increase. Conversely, when customers' engagement with a brand decreases following an interaction with the chatbot, the customers' intent to use the brand decreases, supporting research that highly engaged customers exhibit higher brand commitment and customer loyalty (Brodie et al., 2019).

Furthermore, this study concludes that CBE has a significant effect on customers' continuance intention with the chatbot. Recent research has assessed the relationship between CBE and continuance intention; however, these studies have been constrained to social media (Kim et al., 2020; Chiang et al., 2020; Carlson et al., 2019) and mobile commerce (Hepola et al., 2020; Thakur, 2016). This research extends the body of literature by showing the impact of CBE on continuance intention when customers interact with brands' chatbots. In conclusion, when the customers' engagement with the brand increases, the customers' intention to continue using

the chatbot for their service-related needs will also increase. On the other hand, if the customer's engagement with the brand decreases, the customer's intention to use the chatbot for service delivery and consumption will correspondingly decrease. Once customers have positive experiences interacting with the chatbot, they will develop long-term connections with the brand and use the chatbot as a gateway to interact with the brand.

9.4 Conclusion for Objective 4

The fourth research objective was to *'Examine customers' reasons for using brands' chatbots'*.

In relation to research objective 4, the following are concluded. First, customers who use a chatbot 'to locate information they cannot find on the website' perceive the chatbot as having a higher level of information quality and comprehension than when the chatbot is used 'to get connected to a human service representative'. Second, customers who use a chatbot 'to obtain information quickly' consider their brand's chatbot as having a higher level of information quality, interactivity and social presence than when the chatbot is used 'to get connected to a human service representative'. Third, customers who use a chatbot 'to process a refund or return' and 'to get a personalised deal' perceive their brand's chatbot as having a higher utilitarian value than when the chatbot is used 'to get connected to a human service representative'. Fourth, customers who use a chatbot 'to raise a query or a problem' view the chatbot as having a higher level of information quality, personalisation and utilitarian value than when they use their brand's chatbot 'to get connected to a human service representative'. Subsequently, customers who use a chatbot 'to get connected to a human service representative' view their brand's chatbot as having a lower level of comprehension, empathy and interactivity than when customers use their brand's chatbot 'to locate information they cannot find on the website', 'to obtain information quickly or 'to process a refund/return'.

Moreover, customers who use the chatbot 'to locate information they cannot find on the website' perceive their brand's chatbot as having a higher value co-creation potential than when the chatbot is used 'to process a refund or exchange'. Lastly, when customers use chatbots 'to obtain information quickly', they are less likely to experience value co-destruction than when customers' use their brand's chatbot 'to get a personalised deal or experience'.

9.5 Theoretical Contributions and Implications

This research makes a number of theoretical contributions to enhance our understanding of how (and if) customers experience value co-creation or value co-destruction when interacting with brands' or service providers' automated technology in value-based service networks.

First, this research contributes to the service literature by presenting new perspectives on the concepts of value co-creation and value co-destruction. This new perspective encompasses the emergence of novel automated technologies (chatbots) and how these technologies are reshaping the way in which value is co-created and co-destroyed in value-based service networks. In addition, previous research has focused on resource integration involving human actors (customers/employees) and various technology platforms (Glushko and Nomorosa, 2013; Verma, 2014; Fan et al., 2016; Van Doorn et al., 2017; Wirtz et al., 2018; Hsu et al., 2021; Toscher, 2021) and, to a lesser extent, non-human actors (Caic et al., 2019; Mele et al., 2020a). This study extends the literature by exploring the experiences of value co-creation and value co-destruction between customers and non-human actors, specifically chatbots, while giving insight into the value co-creating and value co-destroying potentials of chatbots. The qualitative findings of this study present a new perspective on the value co-creation process in new and evolved technology-enabled service networks. The findings suggest that the role of chatbots within the value co-creation process goes beyond resource integration. Instead, chatbots are focal actors within these value-based service networks that facilitate experiences of value co-creation and value co-destruction. Previous studies have adopted technology as an operant resource (one that is capable of acting on other resources to create value) within value-based service networks. However, this study presents technology (chatbots) as a resource and focal actor that has the ability to co-create or co-destroy value within evolved value-based service networks.

Second, this research contributes to the literature by revealing six key characteristics of chatbots and the role they play in the value co-creation and/or value co-destruction process. These six characteristics determine whether customers experience value co-creation or value co-destruction during service encounters. Two of these characteristics, comprehension and empathy, are found to have a moderating effect on value co-creation and value co-destruction. Previous research has examined the effect of comprehension and empathy on value co-creation but not on value co-destruction. In addition, these studies are limited to online channels and retail settings (Cossio-Silva et al., 2016; Boadi et al., 2021; Zhang et al., 2018). The current

research contributes significantly to the literature by examining the impacts of chatbot comprehension and empathy on customers' experience of value co-creation and co-destruction. The findings assert that chatbots that comprehend customers' queries will facilitate experiences of value co-creation. Conversely, chatbots that fail to comprehend customers' questions will drive experiences of value co-destruction. Similarly, chatbots that exhibit empathy towards the customer will enable experiences of value co-creation. On the other hand, chatbots that lack empathy will foster experiences of value co-destruction. Moreover, recent research within this domain has adopted a singular approach, focusing on either value co-creation or value co-destruction (Osborne, 2018; Roy et al., 2020; Ramaswamy and Ozcan, 2018; Chatterjee et al., 2020; Lei et al., 2020; Mele et al., 2020a; Mele et al., 2020b; Castillo et al., 2021). The current research extends the literature by adopting a dual approach, focusing on both value co-creation and value co-destruction.

Third, this research contributes to the CBE literature. Previous studies have examined several variables that influence CBE; however, they focused on social media, online brand communities, mobile applications, smart technologies, augmented-reality apps and digital assistants (e.g. Hollebeek et al., 2014; Divedi, 2015; France et al., 2016; Leckie et al., 2016; Pansari and Kumar, 2017; McLean, 2018; McLean and Wilson, 2019; Rahman et al., 2022). The current study extends the body of literature by examining the variables that influence CBE when customers interact with brands' automated technologies, specifically chatbots. Several researchers state that automated technologies have a vast potential to drive CBE (Huang and Rust, 2021; Mele et al., 2020b; Hollebeek et al., 2021; Mele et al., 2020a; Pachen et al., 2021; Van Doorn et al., 2017). However, research illuminating the variables that drive CBE in human-to-non-human service settings remains scant. This study empirically tests nine variables that are each found to play a significant role in influencing CBE. The empirical testing of these nine variables fills a void in the CBE literature and presents variables that may be adapted for future studies within this domain.

Fourth, previous CBE studies have predominantly focused on the impact of value co-creation on CBE (Nangapire et al., 2021; Lin et al., 2018; Yen et al., 2020; Alexander and Jaakkola, 2015; Merrilees, 2016; Zhang et al., 2017). Thus, it is imperative to examine the interplay of value co-creation, value co-destruction and CBE in evolved service contexts. This research contributes to the literature by examining the impact of value co-creation and value co-

destruction on CBE in settings where chatbots facilitate customer-brand interaction. The findings of the structural model indicate that value co-creation and value co-destruction have a significant impact on CBE. This research posits that customers who experience value co-creation when interacting with their brands' chatbots will increase their engagement with the brand. Conversely, customers who experience value co-destruction when interacting with the brands' chatbot will reduce their engagement with the brand. These findings add significant value to the domain of services marketing and prove that customers' experiences with chatbots can either enhance or weaken the overall CBE.

The fifth contribution to knowledge comes from examining the outcomes/consequences of CBE fostered through brands' chatbots. Previous research has examined several outcomes of CBE. First, this research examines brand usage intention as an outcome of CBE; however, studies examining this relationship have focused on social media (Hollebeek et al., 2014; Harrigan et al., 2018), online reviews (Thakur, 2018), augmented-reality apps (McLean and Wilson, 2019; Qin et al., 2021), live chat (McLean and Frimpong, 2017) and mobile commerce (Pansari et al., 2019; Thakur, 2018). This study contributes to the CE literature by examining this relationship with respect to settings where chatbots facilitate CBE. The findings posit that customers who increase their engagement with the brand following their interaction with a chatbot will increase their intention to use the brand, thereby becoming more committed and loyal to the brand. Second, this research examines continuance intention (with the chatbot) as an outcome of CBE; however, the studies examining this relationship are constrained to social media (Kim et al., 2020; Chiang et al., 2020; Carlson et al., 2019) and mobile commerce (Hepola et al., 2020; Thakur, 2016). The current study extends the literature by assessing this relationship in settings where chatbots foster CBE. The findings underscore that customers who increase their engagement with the brand after interacting with a chatbot will increase their intention to use the brand's chatbot to address their service-related needs. These findings fill a void in the engagement literature by illuminating the effect of brands' chatbots on CBE behaviours (outcomes) consisting of brand usage intent and continuance intentions.

Lastly, this study responds to a call for research on CBE in automated service interactions (Hollebeek et al., 2021). This study examined the variables that influence CBE in chatbot enabled service interactions. Previous research has focused on digital settings (online) (McLean and Wilson, 2019; Hollebeek et al., 2019; Hollebeek and McKay, 2019; Eigenraam et al., 2021) and non-digital settings (offline) (e.g. Hollebeek et al., 2019; Harmeling et al., 2017; Brodie et al., 2011; Kumar et al., 2010). However, given the emergence of novel

automated technologies and their integration into the customer journey, it is imperative for CBE to be examined in chatbot-enabled service interactions. This study asserts that chatbots are a catalyst for CBE and presents nine variables that drive CBE in these evolved service settings.

9.6 Managerial Implications

The findings of this study yield numerous managerial implications for brands and service providers. They enable brands and service providers to distinguish which variables they need to pay close attention to when implementing chatbots. Brands and service providers may also focus their efforts incorrectly when designing chatbots; however, the findings of this study serve as a guideline of 'elements' to focus on when designing chatbots. This will prevent brands from wasting resources such as money and time. The findings suggest that social presence, information quality, control personalisation, comprehension and empathy are the characteristics of chatbots that are responsible for customers' experiences of value co-creation and value co-destruction during service encounters. The social presence of the chatbot refers to its ability to provide instantaneous support and feedback to the customer whenever needed. The information quality of the chatbot refers to its ability to provide relevant, accurate and up-to-date information that helps the customer achieve their service-related goal. Control refers to the chatbot's ability to give the customer control over the service encounter. Personalisation refers to the chatbot's ability to tailor messages and anticipate customer needs based on customer data. Comprehension refers to the chatbot's ability to understand customers' service-related needs. Empathy refers to the chatbot's ability to understand customers' emotions and respond in line with these emotions. Brands that consider these variables will yield experiences of value co-creation and avert experiences of value co-destruction.

In addition, the findings of this study indicate that social presence, interactivity, information quality and personalisation all have a positive impact on utilitarian value. This suggests that brands that implement chatbots that encompass prominent levels of these characteristics will enhance customers' perceptions of utilitarian value (functionality) in relation to the chatbots. Thus, it is imperative that customers perceive their brands' chatbots to be functional, as this will drive value co-creation. Conversely, if brands do not consider these variables, customers will view the chatbots as having low utilitarian value and low functionality, yielding value co-destruction. Customers experiencing value co-creation as a result of their functional (high utility) interaction with the chatbot will increase their engagement with the brand. On the contrary, customers who experience value co-destruction as a result of their unfunctional (low

utility) interaction with the chatbot will reduce their engagement with the brand. The findings of this study serve as a tool in helping brands understand how to enhance CBE in chatbot-enabled service interactions.

The findings of this research serve as a springboard for brands and service providers that use chatbots as customer touchpoints. These findings could be adopted and used by brands to ensure their chatbots provide seamless interactions. In addition, these findings could be used to build and maintain a competitive advantage with regards to the efficiency of the chatbot. The application of these findings to the implementation of a brand's chatbot will enable the chatbot to be superior to the chatbots of other brands. This will have a significant effect on the customers' intention to use the brand and the chatbot again, as presented by the findings. Currently, some brands and service providers implement chatbots because it is the norm within these value-based service networks (Huang and Rust, 2018), or because they wish to reduce costs (Adam et al., 2021). However, little effort is made to ensure that their chatbots are efficient enough to create value for the customer. Given the findings of this study, it is evident that with correct implementation, chatbots can become a catalyst for value co-creation and CBE. Lastly, by ensuring that chatbots are sufficiently efficient to co-create value and drive CBE, brands can divert the focus of human customer service representatives to more urgent tasks and activities that drive the overall CBE.

9.7 Limitations and Future Research

This research presents certain limitations. First, the research focuses on customers' perspective of value co-creation and value co-destruction. Given that automated technologies are implemented by brands and service providers, the current thesis could have included in-depth interviews with the key actors responsible for managing/monitoring the chatbots of these brands and service providers within the interviews. This would have generated an in-depth insight into how customers respond to these brands and service providers when they interact with their chatbots. This would be an interesting avenue for future research. In addition, the customer interviews were conducted at the beginning of the COVID-19 lockdown, which was a challenge on its own. Thus, arranging interviews with representatives of brands or service providers was not feasible. Second, the research focuses on one chatbot per customer. Alternatively, customers could be interviewed based on their experience with more than two chatbots. This would have given insight into customers' experiences of value co-creation and/or value co-destruction with different chatbots, which would enable the researcher to compare the findings obtained across the different brands' and service providers' chatbots.

However, due to time constraints, this was not feasible. Nevertheless, it highlights another potential area for future research.

Despite these limitations, further opportunities for future research arise. First, this study explores how customers perceive the impact of brands' automated technology on experiences of value co-creation and value co-destruction. To further explore the value co-creation process with respect to automated technologies, researchers could develop a series of chatbots with different functionalities. This would enable respondents to take part in an experiment that would see them interacting with different chatbots. The respondents would then be interviewed following the experiment. This would advance the research conducted in the current study and assess the experiences of value co-creation and value co-destruction based on more current experiences. Moreover, the findings of this study highlight that empathy and comprehension have a significant effect on value co-creation and value co-destruction. Researchers could extend these findings and explore how customers with a prominent need for empathy and comprehension during service encounters perceive chatbot enabled interactions vs. interactions with a human employee with respect to value co-creation and value co-destruction. Taking into consideration the customers' imperative need for the human element within automated service interactions, researchers could shed light on which stage of the chatbot enabled service the human element should intervene. This research could go beyond this aspect and explore the role of human employees in reversing negative service experiences that occur as a result of chatbot usage. In addition, researchers could explore value co-creation and value co-destruction from the brands' perspective in relation to chatbot enabled service interactions. Researchers could explore how automated technologies affect human service representatives with regards to the value co-creation process. This would give insight into the way in which these technologies either facilitate or disrupt the value co-creation process. Finally, following a firm-based approach, researchers could explore the extent to which chatbot enabled interactions enhance customer engagement metrics, such as customer loyalty and brand usage intention.

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Appendices

Appendix 1: Interview Topic Guide

Interview Topic Guide: Customer Perspective of Value Co creation

Part 1: Value and Value co-creation

Questions asked in relation to chosen brand (Vodafone, O2, Virgin Media, ASOS, John Lewis, JD Sports, Marks and Spencer, Alibaba, Amazon, Sky Scanner & Kayak) In relation to your service experience with the specific brand,

- a. How do you define value?
(Probe: What is most important to you?)
- b. Can you describe your level of involvement (or input) with regards to the delivery or consumption of the chosen brand's product or service?
- c. Can you describe the extent to which the chosen brand's product or service may be customised to suit you?
(Probe: How do you go about this?)

Part 2: Value derived from the service encounter and interaction

- a. How would you describe a typical service encounter experience (interaction) with the chosen brand?
- b. What are the most important elements of your service encounter experience (interaction) with your chosen brand?
Probe (-Product, service, relationship and co-operation)
- c. How do you perceive the overall interactions with your chosen brand?
- d. What would you recommend the chosen brand does to improve your service interaction experience?
- e. Describe any changes you have noticed in the modes of interaction between you and the chosen brand
*probe - from in-store, telephone, to mobile app, to chatbot.

Part 2 (Introduce stimuli video of interactions)

Show Stimuli videos of chatbot interactions relevant to the chosen brand

Part 3: Value and Value co-creation derived from technology mediated interaction

**Discussing what impact the introduction of technology has on value co-creation and value co-destruction.*

Questions based on chatbot interaction video participants have just seen

- f. Describe how the conversation with the technology begun
 Probe: Upon opening the window did the technology acknowledge you?
 Probe: Did it introduce itself?
 Probe: How quickly did the technology respond?
- g. Describe the conversation with the technology? Probe: What did you talk about?
- h. When engaging with the specific brand what aspects of your interaction with the technology were most important to you?
- i. When engaging with the chosen brand what is it that you gain most from interacting with the technology?
- j. To what extent does the technology address your service-related needs?
- k. What do you find most challenging about interacting with the technology?
- l. How do you find the use of this technology for service delivery in comparison to other channels?
 Probe: Telephone – Employee/Automated
 Probe: Employee –Face to Face
 Probe: Email –social media

Part 4: Customer Brand Engagement

**Discussing what effect the technology has on customer brand engagement.*

- m. How does interacting with the technology affect your commitment toward the chosen brand?
- n. Describe the overall impact of the technology on your commitment towards the chosen brand?
- o. To what extent would share your experience of the chosen brand's technology with other customers/friends?
- p. Describe the extent to which your perception towards the chosen brand has changed after using this technology.
- q. Has interacting with this technology encouraged you to develop a better relationship (better engagement) with the chosen brand?
- r. To what extent does this technology make you feel more involved in the chosen brand's practices and activities?

Part 5 : Coronavirus

**Discussing how coronavirus has impacted customer-brand interaction*

These questions are in relation to any brand or retailer.

1. What has your desired brand actioned since the coronavirus outbreak?
2. Describe the extent to which your brand you has made you feel valued since the coronavirus outbreak?
 Probe : What measures which directly affect you have your brands taken since the outbreak ?
3. Describe how customer service has been affected by coronavirus ?

Probe: To what extent have your waiting times in queues changed?

4. Describe how the coronavirus changed the way you interact with the specified brand
Probe : what channels are you using ?

5. Has the specified brand adjusted the way it delivers services or its offerings to suit given the current pandemic?

6. Describe how your relationship with the specified brand has changed during the coronavirus ?

7. Describe how coronavirus has affected your commitment towards your desired brands?

Probe : Are you more open to other brands ?

Appendix 2: Online Survey

Dear Participant,

This is a survey investigating the factors that add value for the customer during the service experience when the customer uses a chatbot (i.e a virtual assistant or digital assistant) to obtain information from the brand or pursue a query with the brand.

Your answers will give us insight into your past customer experiences with chatbots as well as an overview of chatbots. The survey will take you approximately 10 minutes to complete.

Please ensure that you complete all questions carefully. Once you have completed the survey you will be redirected. Please note that this survey is anonymous.

Thank you for taking part in this study.

Q1. Are you:

Male (1) Female (2) Transgender (3) Non-Binary (4) I Identify Another Way (5)
Prefer Not to Say (6)

Q2. What is your age?

Under 18 (1) 18-24 (2) 25-34 (3) 35-44 (4) 45-54 (5) 55-64 (6) 65+ (7)

Skip To: End of Survey If 2. What is your age? = Under 18

Q3. What is the highest level of formal education you have completed?

University Degree (1) College Degree (HND/HNC) (2) Secondary School (3) No Formal Qualification (4)

Q4. What is your level of technological confidence?

Very Experienced (1) Experienced (2) Average User (3) Not Experienced (4)

Q5. Choose one brand or service provider from the list provided below.

- River Island (1)
- H&M (2)
- Amazon (3)
- John Lewis (4)
- Virgin Media (5)
- BT (6)
- EE (7)
- Vodafone (8)
- O2 (9)
- Giff Gaff (10)
- Other (11)
- None of the above (12)

Skip To: End of Survey = River Island

Skip To: End of Survey = John Lewis

Skip To: End of Survey = Virgin Media

Skip To: End of Survey = BT

Skip To: End of Survey = EE

Skip To: End of Survey = Other

Skip To: End of Survey = None of the above

Skip To: End of Survey = Giff Gaff

Q6. Have you ever interacted with a chatbot belonging to your chosen brand or service provider during a past service encounter?

Chatbots are also known as digital assistants, virtual assistants or conversational agents. In simpler terms, chatbots are not human.

Yes (1)

No (2)

Skip To: End of Survey If = No

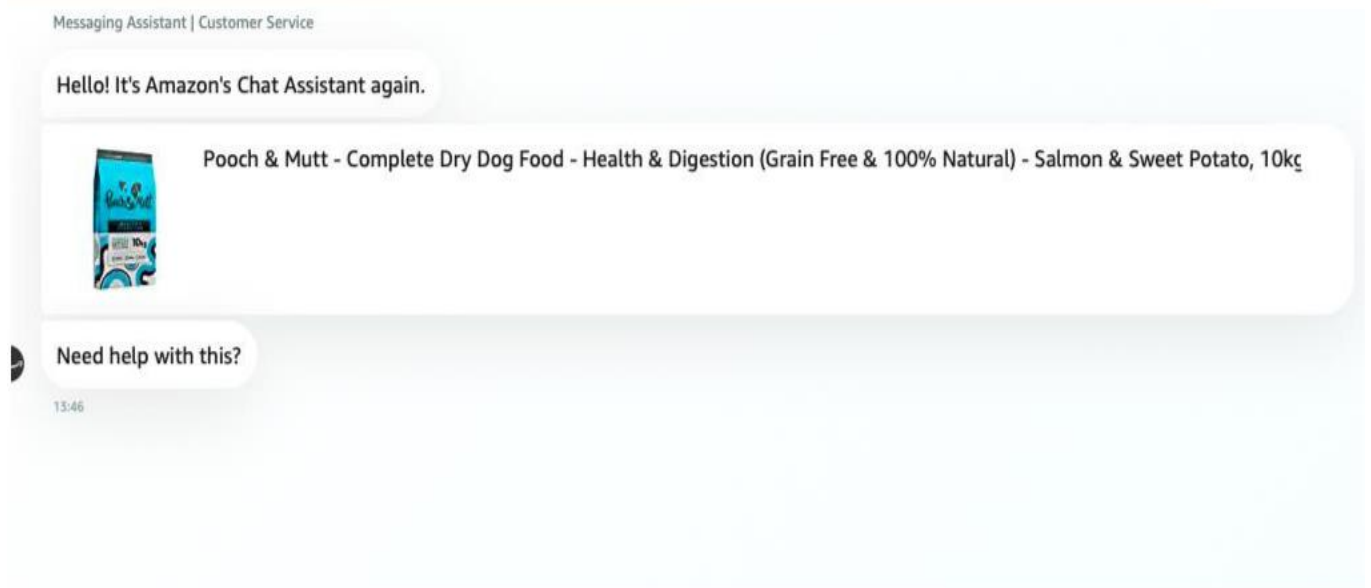
Q7 Select the brand or service provider that the chatbot you interacted with during your service encounter belongs to.

Amazon (1)

H&M (2)

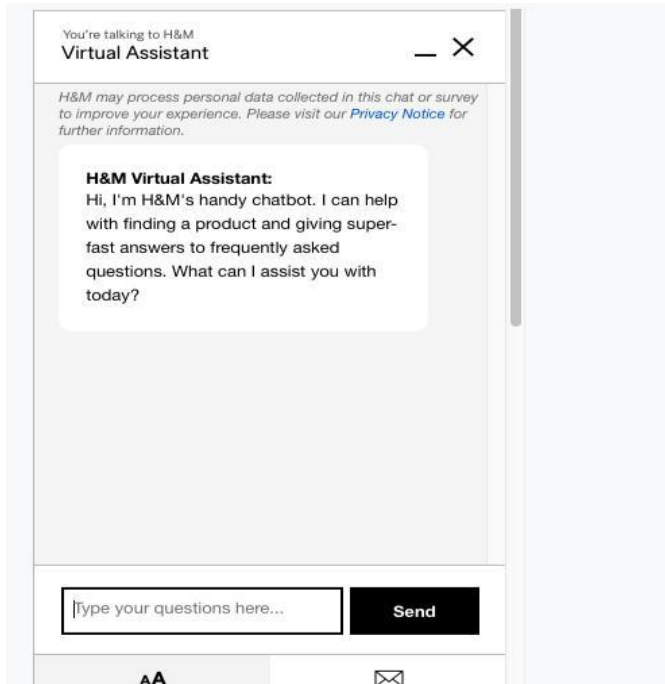
Display This Question:

If 7. Select the brand or service provider that the chatbot you interacted with during your service e... = Amazon



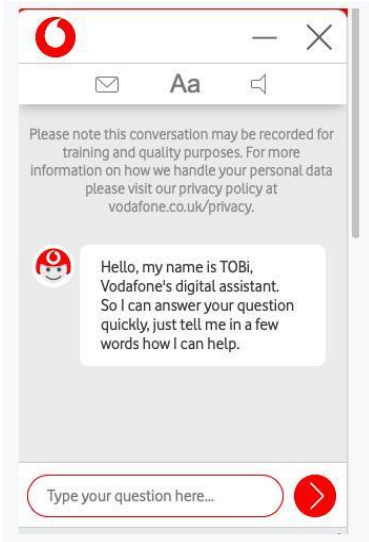
Display This Question:

If 7. Select the brand or service provider that the chatbot you interacted with during your service = H&M



Display This Question:

If the brand or service provider that the chatbot you interacted with during your service. = Vodafone



Display This Question:

If 7. Select the brand or service provider that the chatbot you interacted with during your service e... = O2



Q8. Please confirm if the image shown when you selected your chosen brand or service provider is similar to what you saw when you used their chatbot.

Yes (1)

No (2)

Q9. When last did you use your chosen brand or service provider's chatbot?

Please select one option from the list below.

Under 1 week

(1) 1 - 2

weeks (2) 2 -

3 weeks (3)

Q10. How did you know you were speaking to a chatbot during the past service encounter with your chosen brand or service provider? Please select the two options most important to you.

It identifies itself as a chatbot, a virtual assistant or digital assistant. (1)

It has a robot icon as it's picture. (2)

It replies instantly (within nanoseconds). (3)

It uses simplified language with no grammatical errors. (4)

It asks me continuous sets of questions with options to choose from. (5)

It responds to me with different options to choose from (like a menu). (6)

Q11. What did you use the chatbot for during your past service experience with your chosen brand or service provider? Please select your main purpose for using the chatbot OR select as many options as you would like.

- To locate information, I can't find on the website. (1)
- To obtain information quickly. (2)
- To process a refund/return or exchange. (3)
- To get a personalised deal or experience. (4)
- To raise a query or solve a problem. (5)
- To connect me with a human customer service representative. (6)

PART A

The following statements are to do with your perceptions of the chatbot's presence during your service experience with your chosen brand or service provider. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7=Strongly Agree

Q12. The chatbot acknowledged me right away.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q13. The chatbot replied to me instantly.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q14. My interactions with the chatbot are similar to those of a human.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q15. During my communication with the chatbot I sometimes feel like I am dealing with a real person.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)
-

Q16. I communicate with the chatbot in a similar way as I communicate with humans.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART

B

The following statements are associated with your perceptions of the level of control the chatbot gives you when you are using it, as well as the chatbot's responsiveness and communication during your service experience with your chosen brand. Please rate each the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q17. I was in control of my interaction with the chatbot.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)
-

Q18. I had some control over the content the chatbot provided me with.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q19. I could communicate with the chatbot directly asking questions about the brand or its products if I wanted to.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q20. I could communicate in real time with the chatbot.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q21. The chatbot had the ability to respond to my specific questions quickly and effectively.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q22. The chatbot was talking back to me consistently when I asked questions.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART**C**

The following statements are associated with your perceptions of the quality of information you obtained from the chatbot during your service experience with your chosen brand or service provider. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q23 The information provided by the chatbot was current.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q24. The information provided by the chatbot was complete and comprehensive.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q25. The chatbot provided accurate information for my needs.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q26. The information provided by the chatbot was easily understandable.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART

D

The following statements are associated with your perceptions of the chatbot's ability to personalise your service experience with your chosen brand or service provider. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree , 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q27. I value the chatbot as it is personalised for my usage experience and preferences.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q28. I value the chatbot as it acquires my personal preferences and personalises the service and products to suit me.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q29. I value the chatbot as it gives me personalised feedback to my inputs.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART

E

The following statements focus on the benefits the chatbot offers you during your service experience with your chosen brand or service provider. These benefits include convenience, time management and efficiency. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q30. Using the chatbot is a convenient way to manage my time.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q31. Completing tasks with the chatbot makes life easier.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q32. Completing tasks with the chatbot fits my schedule.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q33. Completing tasks with the chatbot is an efficient use of my time.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART F

The following statements are associated with your perceptions of the value you gain from using the chatbot to address your needs during your service experience with your chosen brand or service provider. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree , 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q34. Interacting with the chatbot provides me with the relevant information.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q35. Interacting with the chatbot adds value to my service experience.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q36. The chatbot makes customer service more accessible and easy to find.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q36B. This is a trap question. Select the answer Strongly Agree.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q37. Interacting with the chatbot has enabled me to undertake my service experience securely.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q38. Interacting with the chatbot provides me with an efficient way to manage my time.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART G

The following statements focus on how you feel about your brand or service provider after you have used the chatbot to address your needs. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q39.Using the brand’s chatbot gets me thinking about the brand.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q40. Using the brand's chatbot stimulates my interest in the brand.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q41. I feel positive when I use the brand's chatbot.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q42. I feel good when I use the brand's chatbot.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q43. Using the brand's chatbot makes me happy.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q44. I am proud to use the brand's chatbot.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART H

The following statements are associated with the value of the chatbot to address your needs during your service experience with your chosen brand or service provider. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q45. When I interact with the chatbot it provides me with incomplete information.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q46. When I interact with the chatbot I do not trust it fully.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q47. When I interact with the chatbot it makes mistakes.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q48. The chatbot does not meet my service expectations.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q49. The chatbot does not serve my service related needs.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Part I

The following statements explore your perceptions of the chatbot's level of emotional understanding during your service experience with your chosen brand or service provider. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree

, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q50. There is an element of human touch during the interaction with the chatbot.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q51. The chatbot comprehends the urgency of the situation.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q52. The chatbot diffuses any feelings of anger, frustration, stress and concern.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART J

The following statements explore your perceptions of the chatbot's level of overall understanding of your needs during your service experience with your chosen brand. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree , 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q53. The chatbot always understands my questions during the interaction.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q54. The chatbot does not repeat its answers or questions.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q55. The chatbot does not give the same answers to different questions.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q56. The chatbot asks the right amount of questions to understand my issue.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q57. My interaction with the chatbot is fluid.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q58. The chatbot provides a reply that is relevant to my problem.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

PART K

The following statements focus on your intention to reuse your chosen brand or service provider. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q59. It makes sense to use my chosen brand instead of any other brand, even if they are the same.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q60. Even if another brand has the same functionality of my chosen brand, I would prefer to use my chosen brand.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q61. If there is another brand as good as my chosen brand, I prefer to use my chosen brand.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q62. If another brand is not different from my chosen brand in any way, it seems smarter to use my chosen brand.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

PART L

The following statements explore your intention to continue using your chosen brand or service provider's chatbot to address your future service-related needs. Please rate each of the following statements from 1 to 7. 1= Strongly Disagree, 2= Mostly Disagree, 3= Somewhat Disagree, 4= Neither Agree nor Disagree, 5= Somewhat Agree, 6= Mostly Agree, 7= Strongly Agree

Q63. I plan to keep using the brand's chatbot to address my service-related needs.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Q64. I intend to continue using the brand's chatbot in the future.

- 1. Strongly Disagree (1)
 - 2. Mostly Disagree (2)
 - 3. Somewhat Disagree (3)
 - 4. Neither Agree nor Disagree (4)
 - 5. Somewhat Agree (5)
 - 6. Mostly Agree (6)
 - 7. Strongly Agree (7)
-

Q65. I expect my use of the brand's chatbot will continue in the future.

- 1. Strongly Disagree (1)
- 2. Mostly Disagree (2)
- 3. Somewhat Disagree (3)
- 4. Neither Agree nor Disagree (4)
- 5. Somewhat Agree (5)
- 6. Mostly Agree (6)
- 7. Strongly Agree (7)

Appendix 3: Interview Transcripts

Age 26: Profession: Legal Analyst Participant Number 5 Brand/Service Provider Chosen: Sky Scanner Male
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INT: Ok so, thanks for taking part in this interview on value co-creation with technology, to start off with could you please tell me your name.

P5: My name is

INT:Ok what age are you and what's your profession?

P5: I'm 26 and I'm a legal analyst.

INT: Alright, great, so which brand have you chosen from the list I showed you?

P5: Sky Scanner

INT: Alright, can you tell me why you decided to go with Sky Scanner out of all of the other brands and service providers?

P5: It's because Sky Scanner is the one that I use the most out of the ones that were listed.

INT: Ok so you're quite engaged with Sky Scanner, how long would you say you've been a customer or user of Sky Scanner for ?

P5: Now, I'd probably say about 2-3 years, but it was on and off.

INT: On and off? Are there reasons why you were on and off ? or just...

P5: Just because I travel a lot more now than I did before, uhm so you know I was maybe going on holiday twice a year, so I'd use it then but now I'm on a flight at least once a month before Corona.

INT: Makes sense , ok so when was your most recent experience with Sky Scanner?

P5: That was in February.

INT: Ok, February, do you want to just tell me what you needed from them or what you were looking for when you were using Sky Scanner?

P5: So yeah, I was planning a trip to Zimbabwe and I was using Sky Scanner in conjunction with google search because I like to use them both at the same time, just to see if the prices match, which they tend to do most of the time, so yeah I was looking for flights to Zimbabwe.

INT: Alright, now so when you start searching for flights you go through a customer journey, usually let's say if you want to travel overseas in say April, you could start looking for flights in January and then finally book them say month or two later. So can you tell me a bit about your customer journey, when you access Sky Scanner how do you access it, do you go via the app, via the website , and what customer contact points do you use for when you are using Sky Scanner?

P5: So I tend to use the laptop, I think they have an app but I've never downloaded it. Most of the time I'll go just directly onto the website and search from there.

INT: Ok you mentioned that you use google search for flights as well can you tell me how you go about that?

P5: Ok I think I actually use google first, so I go on google and type in the airport I intend to fly out of and the one I intend to fly to. The thing I like about google is it shows you the calendar and it shows you the price per day on the calendar, whereas with Sky Scanner you have to run search first then it shows you the options one by one, whereas with google it kind of shows you like an outlook for the whole month

INT: Alright ok,

P5: So I will tend to use google, when the days are cheaper, then I'll choose those specific dates from google and input them into Sky Scanner.

INT: Ok, so google is sort of always your starting point then you go to the Sky Scanner website following this. I also do it this way when I initially start searching for flights . So can you tell me how long the customer journey takes you ?

P5: I love a good deal, so it can take a while if for example I'm the one that's paying for the flights then I take my good time there. I usually don't do it myself actually cause I have some friends who have experience with flight searching, so at times I've actually asked them to do

the tricks that they do. So for example, I never knew, you know they advised me to search in an incognito window or without any cookies, so that can apparently influence prices. So if everyday, I go to search for a flight, a particular route, If I do that once a week, If I check the next week, the algorithm remembers that a lot of people are looking at the same flight which makes it seem like there's more demand, whereas actually you're the one spiking the price. So it might not necessarily be getting busier, but because you're searching every day, the system thinks the flight is busy, so that's how the flight companies themselves put the prices up.

INT: This is very interesting; I knew that the system would change the price based on how many people are looking at the flights but the incognito tab technique sounds like something worth trying . Ok so going back to the question how long would you say this whole process took from the time you realise you want to fly to the point you actually book it and till after the sale has been achieved, how long does this take you ? Is it 3 weeks , a month or so ?

P5: I think it can take a minimum of 45 minutes and it can take as long as a month because sometimes I might not necessarily have the money to book the flight at that time, but I'll keep searching just to monitor how much the prices are fluctuating. I like to look for trends, sometimes a lot of people say it might be cheaper to fly during the week than it is than during the weekends but I've not really noticed that so I just try to see what's happening with the prices. If I have the money, I'll tend to book them immediately and it is true, the further away the travel time from when you book the cheaper it will be.

INT: Absolutely, I always try book my flights well in advance too to be honest.

P5: Yeah, I had a time once where I was booking flights to Hamburg Germany, initially they were as cheap as 55 pounds at the time, but I was just watching my money at the time , but by the time I had money to pay for them they ended up costing me 180 pounds, it was a difference of two weeks and I was raging because in my head I was like there are people on this flight that only paid 45 pounds

INT: It's pretty frustrating when that happens, especially because the opportunity was there. So in terms of the Sky Scanner customer journey , what expectations do you have when your moving along it?

P5: The good thing that I like is that they tend to direct you to an airline instead of a third party agency, it's the same with google as well, one thing I always do when I'm buying flights is I always buy them via the airline, just so it gives you that protection in case anything goes wrong , so I do like that it tells you the airline and you can also tweak the times of when you want to fly so rather than just choosing the date you can choose which times you want to fly, if you

want to go on a direct flight , if you want to do multi-city, so I like how it really does tailor your flight experience, and obviously the more flight parameters you put in there the more expensive it will be because you're looking for a very niche small travel window, so I like how it can help you to tailor your own flight .

INT: Ok, so let me just go back a bit there, so what do you expect in terms of you service experience.. say for example you're using any brand you have specific expectations of them. What do you expect from Sky Scanner as a customer ? Do you have any expectations of them , this could be in terms of things like trust, reliability and so on?

P5: Yeah I suppose what I expect from them is for them to give me a straight forward service which is easy to use and efficient, so I've never actually encountered any problems with them which is what I like, so yeah my expectation is to have a good reliable, efficient service and that's what they've provided me with.

INT: Alright, great so in terms of your motivations, the customer journey has different points, like point one , point two lets say point one is google search, and point two is accessing the website, point three is the searching, I mean there could be like 20 different points,, but what motivates you to move onto each different stage of the customer journey when you're sing Sky Scanner?

P5: Uhm you mean in conjunction with google search or just the Sky Scanner ?

INT: Actually both Google and Sky Scanner.

P5: I think the main thing for me is I like a deal, so if I can pay for something cheaper, I'll always do it, I'm all for saving money. So I wish I could be one of those people who's like I'm going from point a to b and just book it.

INT: So you're saying price is the thing that motivates you most ?

P5: Yeah price is but in saying that I'm also quite particular in the airline that I'm going to fly with. Sometimes when I'm doing the search on Sky Scanner I will always omit certain airlines. For example if im going to the United States I prefer to fly with one wold which is British Airways, Air Lingus, so when I'm doing the search I'l omit all the other airlines except for those airlines, so I like that they have the option for you to do that. Wheras with google you can do that too actually, but for a while you just have to search the flights and you have all these 100's of airlines, some you've never heard, so I do like how you can tailor the journey to exactly how you want it.

INT: Alright excellent, you know when you're using Sky Scanner what emotions do you experience ? Do you have any emotions towards your interactions with them , do you ever feel angry , frustrated per say do you ever feel anxious ?

P5: Uhm honestly no, because I don't feel like I'm dealing with a person. It would be different if I was speaking to somebody on the phone and for example for some reason they can't exactly provide me with what I want or tell me what I want whereas when I'm using a search engine I don't think of it as a person, I think of it as me trying to find what I want. So if I can't find what I want, its actually more so on myself than the engine cause I'm like well its presenting to me what's there, so if the prices are to high then maybe I've not looked god enough or maybe I'velet it too late so yeah I supposes when I do find a bargain I feel elated when I don't I'm not too bothered.

INT: Ok so what do you think and how do you feel with regards to like the different contact points Sky Scanner offers you, cause I lknow now they have the chatbot and they also sometimes correspond with you via email ,so what do you think anout these different contact points ? Do they meet your needs ?

P5: I suppose I've never so much used their mailing system, cause again I feel like it's a service I use when I want to use it, I don't necessarily say let them come to me, so I'd rather just go to them. I unsubscribed to mailing lists because I don't like those things and the chatbot I've used a couple of times, but the service is simple enough for me to not need it. I don't know maybe cause in my experience I know how to work my way round the website, but if you are new to the website then I suppose the chatbot is quite handy.

INT: That's an interesting point, so would you say that the website meets your needs fully in terms of what you can achieve and what you can do with it?

P5: Absolutely, its very very clear say from London to Edinburgh to Harare or then there's an option to add another city or multiple cities, that's one thing I like, so you have an option to do single flight, return flight or multi city. Its almost like filling out a form, you can't really go wrong because it's entirely upto you what you put in. Whereas I feel like sometimes when you're speaking to a person you might forget things, doing it via the website makes the steps clearer whereas if you're speaking to a person somethings might not come to mind. I almost prefer that I'm not dealing with a person

Part 2

INT: So, the next part of the interview, is on value ... in a nutshell value is basically what is important to you in relation to your service experience with Sky Scanner. So in terms of Sky Scanner what does value mean for you ? I mean you've already touched on the issue of finding the best deal is there anything else that you define as valuable to you?

P5: For me I think the value is just the cost to be honest, funny enough when Sky Scanner does give me the results I want, I don't think I've ever clicked and proceeded from there. I always take the date and go to the specific airline then book through the airline, because the airline is not so good for highlighting what the cheaper dates are so I use Sky Scanner google flights to highlight what the cheapest days and routes are for me. Once its highlighted okay if you fly out on Tuesday at 2 pm and return on next Monday and this is the cheapest flight then I will input those exact details into the airlines search engines, like British Airways or Emirates because I already know what the cheapest flights are, all the time the price will then match with the one I would have found on Sky Scanner.

INT: That's actually quite interesting that you do that, is there a reason why you don't want to do it via Sky Scanner instead?

P5: I think ultimately, when it comes down to it I trust the airline more when booking directly from them, not to say I've ever had issues with Sky Scanner, I just don't know what's on the other side. Speaking of which, recently with the whole covid thing I booked my flights directly through Emirates, after having found the cheapest routes through Sky Scanner. I was discussing this with you because when I searched on the airline itself the flights were like 650 pounds, I was like that's not too bad, then as I got closer to the time I was going to pay for them I used Sky Scanner and I found the exact same flights, for a slightly different day time for 580 pounds, so I was like that's going straight in my basket

INT: That's quite a sizable difference, I wouldn't hesitate at all especially for that route.

P5: Exactly, so I ended up booking directly from the Emirates website and then unfortunately when we had the covid situation and flights were cancelled, I knew I was protected because I bought the tickets directly from the airline

INT: Whereas if it had been from Sky Scanner, it could have potentially been another story ...

P5: Exactly, it might be difficult cause Emirates could have said well that's an agency, that's a third party so I just wanted to avoid that

INT: So do you feel like you have any input towards how your service is delivered by Sky Scanner? Like do they ever ask you for customer feedback or any suggestions. Do you feel like you have any input towards how they deliver your service or what they could do to improve?

P5: To be honest no, because once again, I unsubscribed to all their mailing lists, and when some do get through the fishnet, I probably just delete, because again they're a service I use only when I want to use them on my terms, rather than them coming to me.

INT: Do you ever support say another friend sing who wants to fly somewhere, like say they're using Sky Scanner do you help them out or give them any tips ?

P5: I have done so previously for my parents, they're not very tech-savy.

INT: Yes I get what you mean, so you tend to offer some kind of support or help right ? Can you tell me how you do this ?

P5: Exactly, cause their a little bit different to me cause they'll be like ah I'm going here and I'm going there let me pay for it. Then I'm like no way you're paying way too much let me find some deals for you. So Yeah I've certainly helped my parents.

INT: Can you tell me , I know you touched on this before, but I need more detailed. You mentioned that Sky Scanner tailors its service to suit you, can you tell me a little bit more about this , how do they go about this?

P5: So yeah again I think I'll just use the example of the route I was supposed to take so you know you can't fly directly to Zimbabwe you need to go through different points, and I had only flown with Emirates once before and it was a good experience so I trust them as an airline, so I thought it would be nice to use them for that route as well and at the same time I thought it would be nice to visit Dubai cause I've not really spent time in Dubai, so in doing that... cause I knew I wanted to visit three different cities so to speak you couldn't just do return flights, so I had to go multi city so I did London to Harare which would have been through Dubai then Harare, then I did Harare to Dubai as a separate line and then I finally did Dubai to London as another line to satisfy the multi-city needs. So I like that you can do that, and then you can also choose the times you fly, personally I like to save many holidays as I can, so I tend to fly on a Friday after work, because it means I've worked the whole day and I can negotiate with my boss if I can finish at 3 so that I'm not losing day. You can also choose; I like to fly after a certain time but it's like a slide bar that you can move to tailor when you want to fly, so that's the next stage, then it presents the results for you. The one thing that they don't have which I think would be good for them it doesn't show you the aircraft you'll be flying in, I think I'm a bit of an aircraft geek.

INT: Yes a lot of people actually seem to be curious about what aircraft they'll be using

PS: Whereas when you go to the airline's website it does tell you what aircraft will be used for the flight

INT: So would you say having these things you have mentioned on the Sky Scanner website would encourage you to make the booking for the flight via Sky Scanner as opposed to the airline directly ?

P5: No not quite, I'll always prefer to go to the airline directly but I don't know if they could have that kind of information anyway because that's information the airline would know directly.

INT: Alright ok, so in terms of your overall interaction experiences with Sky Scanner, you've used the website, their chatbot and I assume you've never called them so how do you perceive the overall interactions with them. Have they been great ?

P5: Yeah absolutely you know it's very positive, which I'd highly recommend to anyone, cause I've never had issues, I don't know if it's because for me I suppose the service is delivery is the fact it shows me the flights for this time for this amount then I go directly to the airline, so for me I suppose that's the point of service delivery, whereas when you're buying something that's not the end part of it. The end part of it is when something is actually delivered to you, so for me they do their job perfect there and then cause I want to search for certain flights for a certain time and the results are always presented on my screen with the click of a button so the service is then delivered for me, then what I do with the information is up to me.

INT: Yes, it is entirely upto you, so ok that's an interesting point. So you've already touched on what they could do to improve so that's great. So you've been using Sky Scanner for what three years right? Can you tell me about what changes you've noticed from the first time you used it till the most recent time you used it ? What have they done or what are they doing differently in the way you can interact with them or the way you can access them ?

P5: Well for starters the website is a bit more colorful, before it used to be this dark blue , charcoal colour , yeah there was just too much going on. Whereas now, its much more clearer a lot easier to navigate around, again like I said its almost like an application form, you cant miss anything cause it shows you this step, that step, whereas I can't really remember how it was in the beginning, I think a new member or a new person would be able to use it quite easily.

INT: Alright, I mean did they have this chatbot back then ?

P5: Its relatively new and I suppose perhaps that's why I don't need it because I learnt how to do it myself overtime.

INT: The traditional way, basically self service right..

P5: Exactly and I suppose if a new person wanted to use Sky Scanner it would be very handy, but then again its probably not necessary cause I feel like its quite easy to navigate the page. But yeah the chabot has been a good addition because it gives you instant help, whereas with a traditional form, you don't technically have someone there to help you with it.

INT: So would you say in some scenarios you generally prefer self-service instead of having the technology do it for you?

P5: Yes , I think the good thing about having a chatbot is that it does give you instant support. I'm gonna give you an example of a slightly different customer service, so my phone company is Three and I had a bill query, so I tried to call them and this is just after the government lockdown so there was nobody in the call centres I couldn't get hold of them. Then I went to the website and I noticed there was a chatbot, I said I was having an issue then it passed me onto a person and the conversation went back and forth a few times until they actually solved the issue for me because they were able to go into their system and see what happened and they admitted it was their fault so it was instantaneous support at a time where I didn't know if it was going to be available because I couldn't actually call the centre cause they couldn't speak to me. I think it's reassuring in the sense that if you need immediate support there is something or someone who can help you.

Part 5

INT: Alright ok, so part 5 of the interview are questions relating to the experience you had with the Sky Scanner chatbot based on the task you were asked to complete before the interview. You've played with it and you have some experience of it so could you tell me a bit about this? So how did the conversation with the chatbot begin when you interacted with it ?

P5: I think it popped up to me as I went on the website and you know it was just a generic greeting

INT: Did it tell you it was a chatbot or that it was automated? Like how did you know it was a chatbot

P5: It was very responsive, it was replying instantly anytime I input anything.

INT: Ok so when you were talking to the chatbot what aspects were most important to you ?

P5: Quick response .

INT: Quick response yeah?

P5: Cause I like things done very quickly in general.

INT: So when you know you're dealing with a human, there's not enough quick responses so you're more likely to want to use a chatbot if you want a quick response ?

P5: Uh you know I think in these situations I would prefer it to be a human because it can give you the specifics, whereas with a chatbot , it's very niche in terms of what it can respond to or

what its programmed to say, whereas with a human it will say ok let me go and ask my colleague if the human isn't sure and he will come back to you , whereas with a chatbot in my experience I feel like they have very limited responses. Like say what can I help you with, then you say bill, then it asks you questions related to the bill but a human will ask you the specific one you wanted .

INT: So there's some level of frustration cause its trial and error when answering questions with the chatbot.

P5: Exactly.

INT: So what would you say you gain most from interacting with the chatbot if there's anything ?

P5: Yeah you certainly do , if it happens to answer a query then perfect it served its purpose which is to provide a service so its better than nothing. Some are better than others, some are ok and some just aren't good, so it just depends on how well refined their system is , if its well refined then its perfect its great because you're getting an instant restoration to your query.

INT: Ok we kind of touched on this earlier , but Id like more detail on what it is that you find most challenging about using the Sky Scanner chatbot?

P5: You know asking a question the right way and you might ask what does that mean, well if I'm talking to you and I say hey I'm trying to find flights from London to Zimbabwe and can you give me the best routes between Kenya, Ethiopia, Dubai and Cape Town, I have a list and you know exactly what you're looking for , whereas with the chatbot it won't pick up on everything

INT: Exactly, I can agree with this for this scenario.

P5: Sometimes , you can say I'm looking for flights from London to Harare but it might not necessarily ask you if you want a stop over somewhere , it will just give you what you asked for. It doesn't customise or go the extra mile the way a human would do. I suppose it doesn't really meet the need for when I want a tailored journey. Whereas with a human you tell them look I want to go from London to Harare but I want to go through Dubai first then I want to go to Harare, then from Harare I want to go to Dubai and back and they know exactly what you want.

INT: Alright that's good, so the next questions are to do with your engagement towards Sky Scanner. So how does interacting with the chatbot affect your commitment towards Sky Scanner? Does it change how you commit to them ?

P5: Again not for me because I'm very comfortable using the website myself anyway and I've use the chatbot a few times just to see what it does and yeah it was pretty nifty, pretty handy in that circumstance but its still left some holes which weren't really addressed for me at the time.

INT: So overall it doesn't really affect your commitment towards Sky Scanne, you don't think?

P5: No not at all.

INT: Would you share your experience of using the chatbot with the other people, so like oher first time users or something, would you tell them about it? Would you encourage them to use the Sky Scanner chatbot

P5: I would probably say no, because its not something that stood out to me as like wow this is ground breaking, because it really just kinda told me what I already knew, there wasn't really any new information at that particular time, so yeah if I'm gona say use Sky Scanner to a friend, I'm not going to say use Sky Scanner cause the chatbot is amazing.

INT: But would you say to someone who's not familiar with Sky Scanner hey, go check out the chatbot, do you think that's something it could be used for ?

P5: Yeah because I think it's useful, if I'm pitching Sky Scanner I would use Sky Scanner to find flights and use their chatbot or as well if you don't know how to get around the website the chatbot is available to use. I mean I suppose for me it's not my go to.

INT: Alright ok, would you say your perception towards Sky Scanner has changed after using their chatbot , does it make you feel like they care more about being accessible as a service provider to all kinds of consumers? Or are they more efficient or deo they care about customer service.

P5: I think, I wouldn't say my perception changed, but Id say it was noteworthy because I was like oh ok they have a new system or a new method of helping people. It wasn't as useful for me because I said I'm comfortable using the website but I did note that they had a chatbot and I did think that, that's cool it's a service that's available to people that might need it .

INT: That's interesting, cool, so you generally have a decent relationship with Sky Scanner right .. and I know I keep asking you these chatbot questions , so would you say the chatbot has had any impact on your relationship with Sky Scanner or would you say the relationship hasn't really changed?

P5:I'd say the relationship is definitely still the same but if I was a new customer I'd be very very appreciative of the chatbot because its there, again, you know humans mostly I believe trust humans more than machines or chatbots or whatever, so I think yeah its nice that its there because it can guide you and direct you .

INT: Do you think so ? Can you tell me why you think humans trust humans over machines?

P5: So when you're dealing with A.I. people can be a little suspicious because they don't know you know the process behind the machine, so some people might think that it's a programmed thing where it's just generic answers, so it might not give you the precise answer that you're looking for whereas when you're talking to a human being it's a conversation, it's a back and forth process, and more often than not they can give you an immediate response and very precise answer to your question.

INT:Ok then last question, relating to chatbots, can you tell what you enjoyed most when you were interacting with the Sky Scanner chatbot?

P5:I guess I was just intrigued you know, I suppose I wouldn't say I was excited or elated it was more intrigue more than anything, it was mainly curiosity that drove me to keep using it but overall I enjoyed how quick it responded.

INT: Just to see what kind of content and information you got back basically..

P5: Yes exactly.

Part 7 Covid- 19

INT: Alright, then so the last part of the interview is related to coronavirus and how its changed the way you interact with your brands or service providers. For this section you can pick any brand, retailer even a service provider that you're really engaged with or that you interact with regularly... so the floor is yours.

P5: Ok that's the funny thing, so I don't know if I've said this but the one thing is I've been able to save a lot of money because I haven't needed to spend much money. I've not had to buy new clothes, I've not needed to go out and eat out and stuff like that but I have used Amazon to buy a few books .

INT: Ok, I've used Amazon recently too to be honest.

P5: Yeah I've had them deliver books to me and a few other things.

INT: ok so you're going to go with Amazon then ?

P5: Yes..

INT: Ok so, can you tell me since covid-19 actually started what has Amazon actually actioned, have they done anything different from what they used to do before or is still the same ?

P5: Uhm for me , I've had contactless deliveries so they'll say oh I'm gona leave this here or I can't really remember if I'm the one that said ok just leave it here, honestly I can't really

remember , but the last delivery I had, they buzzed the door and the guy said ah its Amazon and I live in an apartment complex and I said ok I'll let you in then he said thanks I'll just leave it in your box.

INT: Alright ok, great ..

P5: Whereas before, they came to the door and gave it to me.

INT: Alright ok, so can you tell me what Amazon has done to make you feel valued as a customer since this outbreak, you know have they done anything that's made you feel important as a customer to them?

P5: Ah honestly, not that I can think of but the one thing I can say is I haven't noticed any disruption in their service which is something that I value.

INT: Alright, ok that's a very good point yeah because a lot of retailers at the moment are facing disruptions. For example I was speaking to Leslie about Argos and you can't get anything, you find something online and then they tell you its not available for delivery because it's not in a store close to you or something, so a lot of people are now moving away from Argos for service delivery. Customer service wise, would you say it's been affected because of covid-19 or ?

P5: Again I've not noticed any changes because I've definitely made less purchases than normal but I think I've bought maybe 2 books and a video game and something else. What I've found quite funny is they have a bit of a catchment, usually when you have Amazon prime the thing usually arrives tomorrow or the day after, I think they've actually extended it so it was actually saying to be delivered between 8th of May and the 12th of May for example, it was delivered on the 10th of May but it was still delivered early, it was still delivered in the normal time frame so even though it said it was going to come on the 12th of May it was still delivered on the 10th but I think they're kind of covering themselves but I do appreciate that they're delivering well on time.

INT: Would you say there's been any change in how you interact with Amazon lately?

P5: There hasn't been a change for me apart from the delivery process because it's always been online.

INT: Uhm in terms of how the brand delivers the service have they done anything else apart from the contact free delivery? what else comes to mind?

P5: No and its funny you say this because this is kind of the first time I've interacted with the delivery people, usually I'm at work when the package gets delivered and I arrive home and its waiting for me whereas this time I've actually spoken to them and that, so that's the only change I can think of.

INT: Ok great, so would you say your relationship with Amazon has changed during the coronavirus outbreak? Do you feel like you rely on them more in a way ?

P5: Again, I wouldn't say I rely on them more but I appreciate that their service hasn't experienced any disruptions at all which I appreciate because I'm a person of efficiency. I commend them that for me that they've maintained their efficiency.

INT: Ok so lastly, can you tell me how your commitment towards amazon has changed during this outbreak has changed? are you more open to other retailers?

P5: No not really, Amazon always comes to my mind first and it always starts and ends with Amazon. To be honest I haven't used the likes of eBay or Wish in 5 years, just I don't know with eBay even though you had this community or so to speak, I still felt like I was dealing with a person, whereas with Amazon I feel like I'm dealing with a company, and I feel safer with Amazon.

INT: Ok that's great man, that is perfect thank you for taking part in this interview.

Age: 23
Profession: PhD Student
Participant Number 7
Brand Chosen: Amazon
Female

INT: Ok so thank you for taking part in this research on value co-creation, and just to let you know I'm recording, so for the purpose of the interview can you tell me your name, age and profession?

P7: My name is, I'm 23 and I'm a PhD researcher.

INT: Ok thank you, so which brand have you chosen from the list I showed you a few weeks ago?

P7: I'm going to choose Amazon,

INT: Alright, ok can you tell me why you chose Amazon?

P7: I think from the list you showed me I have the most interaction with it and I know that I've definitely used their chatbot in the past so I definitely have good experience and obviously I like the brand. But it would also be the first place I turn to if I was looking for anything

INT: Ok , so how long have you been a customer of Amazon, like how long have you been using it for ?

P7: I think I must have been using them for maybe 5 or so years, but before I would almost say I was never ordering anything online, whereas recently I use it a lot more especially during lockdown I use it a lot more and I only became a member of prime maybe two months ago..

INT: Was there a reason you became a member of prime 2 months ago ?

P7: Actually the reason was, my mum wanted the student account because she wanted the prime video and like obviously for the delivery I was using my boyfriends before but I was like oh I might as well get it too for the next day delivery, it just kind of made sense and then since I have, I'm just constantly ordering stuff I actually need to stop , I kinda feel bad for it.

INT: Interesting, lockdown seems to be encouraging more people to shop online.

P7: Everywhere has sales just now, literally everywhere so it makes it harder not to buy

INT: Ok, so when was your most recent service experience with Amazon ?

P7: I would say maybe three weeks ago, well I did the chatbot thing yesterday but I'd say the time I actually interacted with them fully was three weeks ago.

INT: Alright ok, what did you need three weeks ago ?

P7: I had ordered something and just as I had ordered it said that it was out of stock, so obviously me and somebody else must have both had it in our basket and then it just kept

coming up delivery date pending and it couldn't give me a rough estimation, I was just getting annoyed and again they could only tell me like oh we will let you know when it's going to be available so then I just got them to cancel it cause you know, I hate waiting.

INT: So usually when you interact with amazon how do you go about this interaction ? So talk me through your customer journey, do you go through via your mobile phone then go via the app, or do you go via the laptop then onto the website .

P7: I think before I've going via the website and accessing customer service that way ehm and then normally my question can be answered by the chatbot, a few times I've had to speak to the human advisor but normally it's quite quick in terms of me getting the answer I'm looking for, which is also why I chose Amazon, because some of the other brands that I've had interaction with like say Vodafone but I think even their chatbot is so much slower in comparison to Amazon, because I just changed my phone from Vodafone last week so probably I should have chosen Vodafone cause my experience with them was just so annoying , I didn't find the chatbot very useful, whereas with Amazon I kind of know what answer I'm going to get and I know it's going to be a quick answer

INT: So on average how long does the journey take, like say when you spoke to them three weeks ago ? Like how long did the whole process take. P7: I would say probably less than 5 minutes ... **INT: Less than 5 minutes?**

P7: Yeah and that's like me going on, finding the customer service, asking the question and waiting for the response because what I think is good about it, is that it comes up with all of your recent orders and it asks, what one is it that you want to talk about... so it's not like you need to have a customer number or order number ready, it just knows basically what you want to ask before you say it.

INT: Yes I noticed that's one of the good things about their chatbot..... when you put in any query it automatically asks you which item you're talking about and asks you to click on the item while it shows you your order history.

P7: Yeah exactly...

INT: So in terms of your expectations...you know in the customer journey you have different points, so lets say point number 1 is accessing the website, point number 2 is hitting the customer service tab, point number 3 is the chatbot, point number 4 is speaking to the human agent.... So what do you expect like when you're moving along the customer journey.

P7: I'd think at the first stage I'd expect that it's easy to find first of all because on some websites when you're even trying to get to a place where you can do customer service it's like they don't actually want you to find their customer service buttons so I think first of all being able to do that and like having quickness there and then when you start with the chatbot, I think like a customizable service maybe ... as I say they can recognise what products they think you're going to ask about and quickness I think is key as well and then I would say to be honest when I do need to speak to a human, I would rather they didn't give too much small talk because I think it just feels more forced now, whereas if you were in like a face to face service encounter....you know even I worked in customer service a while ago, you would have to do that whole kind of ; oh what are you doing today. But then when you're on an online chat with a human agent and they're like oh how is your day today it's just so weird.

INT: I see..

P7: Yeah I think I had it with Amazon, they were like how is your day today then in a separate line they sent a smiley face, with the colon at the top.

INT: Interesting that you mention this

P7: Yeah you don't really want that to be honest, you just want them to answer the question. I think when the human element comes in it's just about ok answer it as quick and as clear as you can, I don't need you to show any interest in my day, just answer my question.

INT: So that's what you would expect from the human, just them answering your question.

P7: Yeah nothing else.

INT: Alright okay, so what is it that motivates you to move onto the next stage of the customer journey so from point 1 to point 2 to point 3, like what are the main things that motivate you

P7: What as in terms of why would I choose to speak to the human advisor ?

INT: Yeah exactly, like what motivates you to keep moving along the customer journey?

P7: I think like maybe if I wanted to be 100% sure on a certain aspect, I don't know why, I wouldn't fully trust the chatbot you would still want somebody to actually check the right answer. I noticed yesterday when I was doing the task that you asked about when my prime will end and what the benefits of my prime. There was an option where the chatbot could have answered or it told you where to go to go and get the answer but I still think you would go to the human just to go and get that confirmation, rather than me having to go and look for everything by myself. I would either turn to the human just for confirmation or just for ease, like ok it's your job you're getting paid to do it.

INT: Ok now, do you have any emotions when you're moving along the customer journey. I know you mentioned that you were annoyed a couple of weeks ago cause they couldn't give you a direct answer, did you feel anything else.

P7: I suppose sometimes I feel a variance in service from Amazon, for example my boyfriend and I were sitting together answering the questions with the chatbot and the human. With mine, when it asked what the benefits of prime were they were just like ok, we'll send you the answers to that in an email and then I never got an email. Whereas my boyfriend got a totally different answer from his agent, and I can't really remember what it was but surely you jyst have a script that you should be able to follow, everybody should be able to just give the same answer for the same question , there shouldn't be sucha variance.. they should just be like ok here are 5 benefits of prime rather than ok just wait for an email that you're never going to get.

INT: Especially if you are dealing with a human they should be able to tell you there and then what the benefits are...

P7: Exactly, I think it would be so easy , whereas the thing is they hadn't replied for ages as well , like it wasn't just ok we'll send you an email took a few minutes, which isn't that long but when you're on like an online interaction, you just want it to be quick. You feel like it should be so quick to answer you then when they come out with an answer like that you're like whats the point especially when they encourage you to use the prime service. So if I was a customer that was thinking about cancelling my prime I would have done so because they can't even sell the benefits to me, they're just going to send me an email that will never turn up.

INT: Ok that's good, what did you think and how did you feel with regards to the different contact points , did you feel that your needs where met by each contact point, so one contact point could be the chatbot , another contact point could be the website and the human agent is a contact point.

P7: Yeah I think with the chatbot first it's a good experience for the customers because they can offer something that's straight away answers that humans are lacking in the case of amazon and everything comes through very very fast, so I'd say that the most positive part of the journey is speaking with the chatbot and obviously it's only upto a certain extent that they can answer what you want sometimes, so I understand the need for the human still but I'd say the overall level of service or the speed or even the way they answer is just like so much better ... even the language they use the way that they type, sometimes when you speak to a human they don't even put capital letters. I know it's not a big thing but come on you should still be writing proper sentences and proper English. Like when you speak to a chatbot it has a nice big introduction, identifying itself right away so it's very clear and neat for interacting.

INT: Yes exactly...

P7: So it's like totally pre-emptive which is nice obviously for customers, they don't have to waste their time like typing out big long questions if it's there already, you can get it done much quicker. Whereas when you're waiting on the human and they come in they either force small talk which is just awkward, it's like they don't understand social cues from having a conversation. I don't think the way they write is up to a high standard you'd expect from Amazon, you would expect their online agents to be really quick and having set answers

INT: Ok so overall in comparison to the chatbot, do you feel like the human doesn't really meet your service related needs like when you want something done.

P7: Yeah I would say so, definitely because it's just so easy with the chatbot and I like how .. I don't know if other companies do it , but I like how Amazon identifies that it's a digital assistant, it's not like it's pretending to be a person

INT: Ok yeah,

P7: And then when it puts you through to a person , you're getting ok we're now connecting you with

INT: So it doesn't feel like you're being tricked basically. Ok so when you're moving along the customer journey can you think of any barriers or challenges that you face?

P7: I suppose maybe if you were waiting for the human, time would be a barrier especially just now with busy periods but I think apart from that the whole thing is seamless, I would say with amazon, obviously I know where to find the customer service but sometimes it's not that clear, for example when I told you about the product that I was trying to find out when it would be getting dispatched , like I think it would be good if when you went onto your orders you just had options straight away or the chatbot was open. Like with Vodafone for example, they just had the chatbot open there the whole time on the screen whereas with Amazon that's not the case, I mean I can find it but I don't know about everyone else .

INT: Interesting that you mention that, it does appear to be quite hard to find.

P7: Yes exactly, I mean you had to give us guided instructions on how to find the chatbot so that we could complete the task

INT: Ok great, so that's part 1 done, so part 2 is related to value , value basically means what is important to you in terms of your brand or your service provider. So what does value mean for you in relation to Amazon or your previous experiences with Amazon?

P7: I think it's about getting a service that I tailored to me now, especially when you see how advanced technology is especially in online settings, you expect it to be something that's totally personal to you , something that you get the answer for without really having to do much from

the customer point of view, I don't really want to be investing a lot of time in getting the solution, I want them to be the ones that give me the solution and I can just say ok, I want them to be the ones that are taking control of the service encounter as well I don't think I should be inputting that much effort into it, especially if I'm chasing up or if I do have a simple question, I do expect them to just have the answer there , if I ask them what the benefits of prime are and they can't tell me well ok that's not very valuable to me.

INT: Ok I understand what you mean here, so do you think you have any input in terms of how Amazon delivers it's product or service to you ?

P7: I don't think I'm that heavily involved with Amazon just because I think they have your data just sitting there waiting and I think with the way Amazon is now designed everything is so easy, even with your one swipe purchase on prime you just don't need to do anything, it's not like other websites where you would still have to put in your card details or like your account information, it's just so easy and I think it attracts people because from the outset you when you were using amazon you would think this is easy and probably if I have a problem this will be solved easily as well..

INT: Yes totally and that varies I guess depending on the company...

P7: Yes exactly...

INT: But do they ever ask you for any feedback or any suggestions on things they can improve on or

P7: Like what after I buy a product?

INT: Yes...

P7: Yeah I get a lot of emails asking me to rate a product, but to be honest I never do and then they don't follow up so...

INT: Ok , so do you ever feel like you support other Amazon customers ? Like say if someone else is looking to get something from Amazon do you help them out or ?

P7: What as in would I give them a review ?

INT: Like say if you bought something and it was good would you recommend a product ?

P7: I would probably only do it I bought a product that was bad and it didn't meet my expectations, I would be more likely to go and then write something about it or talk about it, ok fair enough you need people to write yeah it was fantastic and I highly recommend but I think if I was buying something that was fairly expensive, I would also like to hear some negative reviews as well.

INT: Exactly...

P7: Like I would still like to see the balanced side as well. I can't think if I've ever written a bad review, not on Amazon, I have given a bad review before but I think I would do it you know if a product was broken or it took a long time to arrive and I couldn't track it, I think it's important for other customers to know, but I wouldn't give that feedback directly back to Amazon when they just send me an email saying rate this 1 star 2, 3, 4, 5 ... I would be more likely to go put it on a public space where other customers can make use of it.

INT: Ok interesting, so can you tell me how Amazon tailors its product or services to suit you, like in terms of personalisation, payment methods, discounts...anything you can think of really.

P7: So I suppose they definitely personalise it in the sense that when I go on my Amazon it's like obviously products on there that they know I would like to buy, but now cause my mum and dad are using my Amazon as well it's like a real mix of what's there and I think to myself I'm definitely not buying that.

INT: I get what you mean ...

P7: It's good in that sense cause it's so easy to find stuff, even with the recommendations at the end, cause I also have a Kindle and even with my Kindle recommendations like they're there on any page that I go on.... Even if it's not anything to do with a book, if I'm looking for any product and I scroll down it still has recommended products for me and I'm like ok yes I want these things...

INT: That's great ...

P7: It is good in that sense, and then obviously they have their Prime Day which is just exclusive to Prime users but I haven't experienced that yet as being a Prime member since I only got that two months ago

INT: What is it meant to be like, the Prime Day?

P7: I remember my boyfriend doing it last year and I mean there were really good deals on it.

Part 3

INT: Ok so now we're moving onto Part 3 of the interview, part 3 looks at the value that you gain when you're interacting with Amazon... so during your service experience with Amazon, everytime you interact with them, what would you say is most important to you? Like any time you interact with them?

P7: I would say the quickness and the effectiveness of their answer as well so in terms of quickness what I like is when you ask a question, I hate when the three dots aren't up because at least when the three dots are up you're thinking okay, they're giving an extensive

answer here and sometimes when there aren't any dots and a few minutes have gone by you're just like ok what are they doing ?

INT: Yes, I know what you mean

P7: You're just thinking answer the question, and as soon as they log into the system in terms of the human advisor they should just be on yours and focus on you, maybe they're answering another 10 queries at the time but I just think in terms of ease, quickness and convenience you don't expect to wait more than two minutes...especially from the chatbot

INT: Interesting you mention this.

P7: I remember when I was using the Vodafone chatbot , I was changing to EE and I was only asking them if I can check whether my contract has been cancelled and I nobody could even get the answer to me , I mean surely that's the easiest question to answer . They just couldn't tell me anything and that was five different people I spoke to with Vodafone.

INT: So overall how do you perceive your overall service experiences and your interactions with Amazon

P7: I would say they're really good , I mean there are some issues when it gets to the human in terms of the variance in service , I think that in any company they should have a set answer for everything. You know I used to work in enterprise in a customer service role and everybody would be like robots you know, we would have to say specific things to customers so surely I think they should have a list of answers that they give to people for common questions. Like how many different things can people ask Amazon, I mean not many.

INT: Ok

P7: and I am happy with the service and that's why I will always go back to amazon, I don't think theres and alternative for me if I was look for any product I would always check Amazon, even if it was a new phone . I would always check on Amazon and see what their options are because you know it's like a reliable overall service, you know if something is gonna happen then there is somebody who tends to answer it whereas if you go for an unknown website
mmmmm until you actually get the product and see that it's working then you can relax, whereas with Amazon you never really have to worry.

INT: Yes that's true,

P7: I mean I would always rather pay a little bit more so that I can track the order even when it's out for delivery and you can see exactly where the car is. I'd rather always pay more for the convenience, like if I want to go out who knows when this product is going to come whereas with amazon I can almost pin point when it's going to arrive.

INT: Yes, with some brands it's a guessing game isn't it .

P7: Exactly like so I think it's not a perfect service yet but it's still one of the best in terms of a big online marketplace.

INT: Ok, so in terms of your recommendations , like what they could do to improve your overall service experience , what would you recommend Amazon does?

P7: I think the chatbot should be able to do more, like yesterday you know surely I could have asked the chatbot the benefits of prime or when my prime thing was ending, I think they should have a higher ability to not always transfer you to the human. I mean ok yeah the human is good for the confirmation, somepeople would still prefer to have that human interaction , I think if the chatbot was a bit more elaborate in terms of what it could do then yeah that would be great.

INT:Ok so I'm getting the idea you genereally prefer speaking to chatbots than humans

P7: Yeah, but that's sad though..

INT: It's interesting though can you tell me why you think that's the case for you?

P7: Yeah I think because it's definitely quicker, and it's instant answers and again no variation they write in sentences that make sense, their English is very good, it's just an easier overall experience, they don't ask you how your day is with a silly smiley face. You don't want that,...ok I still want that if I'm having a face to face interaction , yeah I would still want someone to have small talk with me and now if I was going through any service in real life and they weren't making any effort to be like how's your day then I would be a bit disappointed but when it's online I don't want it .

INT: Ok so lastly, in that regard ... I mean you've been using Amazon for what 5 years give or take, can you tell me what changes you've noticed in how you interact with amazon like they've not really had a physical presence till recently they've always been online, but what can you tell me about how the website has changed and the customer service element has changed.

P7: I think that they're website is definitely more personalised now, you definitely get more recommendations based on you know what you're looking at suggested products as well would also come up. I also like that they do the amazon choice thing so like even if you were looking for something like really simple like a phone case , 10 of these cases will look the same but they're all from different sellers , I like how amazon does the Amazon choice, like I will always just go for that one , even if the amazon choice one is 2 or 3 pounds more expensive I'll pick that one, it obviously got the Amazon choice sticker for a reason. So I think that's something that changed which I cant remember from before.

INT: Ok...

P7: I also can't remember them having a chatbot before that was so effective and so quick , it must be quite a new thing. I think they need it especially with them receiving such a high volume of customer queries, but especially now during covid they must be through. So it's good that the chatbot can maybe at least answer half of these or even under half, cause I'm sure there's even customers like me that would just prefer the digital conversation over the one with the human, more so the younger generation, especially if your answer can get answered quickly by the chatbot why would you want to speak to a human ?

INT: Ok great , so now we're moving onto part 5 of the interview which asks questions related to the task you had to complete yesterday with the Amazon chatbot

Part 5

INT: Ok, so can you tell me how the conversation with the chatbot begun yesterday?

P7:Ok so I had quite a large message of itself identifying itself as a digital assistant, saying it's here to help me with whatever and if I could select from the list of boxes below what I wanted to talk about. So I think it was refunds, tracking a product, the managing of prime, other and I can't remember what the other one was but they covered what most people would want to hear.

INT: Alright, ok so what would you say made it obvious that it was a chatbot?

P7: I think straight away it said that it was a digital assistant, so you would kind of just know.. otherwise they would just say their name if they were human and it also had little picture of a bot of some sort.

INT: Ok right , so when you were speaking to the chatbot what was most important to you ?

P7: Mostly, I think it was that they had the option I was looking for. I think as long as they're encompassing most of the customer's experiences then that's what you want. Again the personalisation of being able to pick from the list; ok it's that product that I want to talk about is good, if it was a product rather than a question about a prime. I think ease of that is really good, not having to give numbers like order numbers, the date that you bought it ...all the product specifications, you would just expect them to have that info, whereas all the other companies , they were still asking me to confirm my mobile number with Vodafone...I was like I'm talking to you through my account. So that's just annoying, you just have expectations now of ok this should be quick, this should be easy ... it shouldn't be frustrating at all for the customer now

INT: So what is it that you gained most from interacting with this Amazon chatbot if there was anything that you gained from this ?

P7: Mmm what did I gain...Do you mean just from the chatbot or when I had to go and speak to the human ?

INT: No just from the chatbot specifically...

P7: Just from the chatbot I suppose I gained my answer quite quickly or atleast we eliminated that the chatbot couldn't really help me and it connected me to a human advisor, so it wasn't a sort of back and forth, back and forth thing, do you want help with this, do you want help with that.... it was like ok manage prime, do you want to speak to a human advisor ... yes, it was easy. So I think that was the main, it basically got to me to where I wanted to be as quickly as possible.

INT: Alright ok, is there anything else you can think of or was that the main thing?

P7: I think that's the main thing, my interaction with the chatbot was short which is good, because I'd want it to be. Unlike with the Vodafone chatbot which took me in circles , whereas with the Amazon one I like it cause it's just easy there are only a few messages exchanged.

INT: Alright ok, so you did highlight that the chatbot does address your service related needs but another question is what do you find most challenging about using the chatbot ?

P7: I suppose that you know that it's just programmed to say certain things so you cant always be fully convinced with the answer that it gives, which is why sometimes you seek validation from the human aspect of things, cause obviously it's limited , I mean it is limited in what it can do and each customer query is unique. But I think now it's gotten to the stage where you expect it to be better than what it is. Especially with Amazon, it's such a massive and developed company everything else like their amazon flash buttons, their one swipe purchases, everything is just so easy on Amazon so you would kind of imagine that chatbot is the highest one that you've seen. So you'd want it to you know have the answers to when my prime is ending within a two second window. It shouldn't even take a human advisor like 3 minutes to check when my prime window ends, you know like it should be automatic.

INT: Ok do you think there's anything else that they could improve with their chatbot or is there anything else that you find challenging about using it.

P7: I mean maybe they could come up with a name for the chatbot, I mean digital assistant is a bit robot like even though it is a robot...cause like Amazon have names for everything else like Alexa or their echoes , it would be quite nice if it was more personable. Like it's good yeah ok you're identifying your digital assistant ...it would be good if it was digital assistant my name is , because then at least you're not saying oh hello digital assistant like you don't that... you know that it's a robot but you don't want o necessarily acknowledge that it's a robot

especially for I'm guessing lots of customers would be put off as soon as they see it's a digital assistant, they'd be like no I want to speak to a human.... I think giving it a name will definitely humanise it.

INT: Ok good, so how do you compare the chatbot to other service channels, I mean email , the human or even telephone.

P7: I don't even think I would attempt to send an email or phone now, I don't know.. I mean enjoy speaking on the phone and obviously I've worked on the phones before in previous jobs, but now I just can't think of anything worse than having to phone a company. I hate it when I see that they don't have a chatbot option or when you need to fill in like an online form, that's just so annoying. Like you never know when they're going to get back to you. Like just now my boyfriend and I are trying to get money back for a flight to Japan in June but it's just like an online form and they acknowledge that they got it but then it's like when am I going to get a response. They don't even tell me like within 48 hours...

INT: Which airline were you meant to be flying with ?

P7: Aeroflow, it's terrible..but in relation to that now I can't think of contacting Amazon any other way but the chatbot.

INT: So the chatbot is the best option for you ?

P7: Definitely ...

Part 6

INT: Ok that's great, so part 6 is to do with customer brand engagement and this is to do with what effect using the chatbot has on your engagement with Amazon.

P7: Ok

INT: Ok so would you say that after interacting with the amazon chatbot this has affected your commitment in anyway ...

P7: Ehm I would say because of the ease I'm still committed to amazon as an overall place to shop in terms of picking it because I've had positive experiences, yeah I'd definitely say I'm committed.

INT: But would you say using the chatbot has say improved your commitment towards it or not really?

P7: I think yeah because you don't need to go through any of the other channels to reach them , like if you do have a problem you know it's almost going to be instantaneous responses 307

whereas, I mean I don't know if the likes of Ebay have a chatbot , but say gumtree that wouldn't have a chatbot , so you would avoid gumtree by all costs . Even if you could see an amazing product with an amazing price but then If you get that product and it's not so amazing you then want to change.

INT: Ok so to what extent would you share your experiences of say the amazon chatbot with your friends or colleagues, like would you tell them about it or would you say the amazon chatbot is great or would you talk about it with anyone else.

P7: Probably if they were hesitant about making a purchase, in case it wasn't the right one, I'd say well it's really easy, it's really easy to solve a problem if you have one with them .. especially just now like people are obviously trying to contact their companies for a lot of refunds and like everybody is having to wait for ages, so I think knowing that there is a service out there that can get you things like instantly and like responds instantly then I would definitely recommend yeah.

INT: So would you say that after using the amazon chatbot your perception towards them has changed or has it improved?

P7: I think my perception overall towards Amazon has always been that it's convenient and easy so I would say the chatbot has enhanced their image I wouldn't necessarily say it's improved it because I had a positive one of them anyway so it's solidified that it's a good company and that it's an easy company to shop with , so you kind of always have high expectations and even when they don't get met sometimes, you always know that it's probably going to get solved like through their chatbot.

INT: Ok so, has interacting with Amazon chatbot encouraged you to develop a better relationship with Amazon?

P7: Uhm in terms of loyalty do you mean?

INT: Yes, in terms of loyalty, in terms of how sure you are you're going to get your problem solved by Amazon ...

P7: Yeah, I would say so because I've never had a negative experience with them, like even if it's taken abit longer to get an answer at least they can always almost point me in the right direction and even just now I only have to wait not very long for the human adviser to connect to the conversation. It's not like when the chatbot passes you over you're kind of just forgotten about or just left in a long line of people, they're passing you onto somebody straight away.

INT: Ok so can you describe your level of enjoyment when you're using the amazon chatbot, like what do you enjoy most about the interaction with this bot.

P7: Lets think, I think I enjoy the fact that I'm always getting the answer that I'm expecting to get so it's never like a negative experience, it's always just what I want, it's just confirmation sometimes with the chatbot and you always get that confirmation, you never going round in a circle with it, it's just like very straight to the point . So I think it's an enjoyable experience, I never feel stressed or frustrated when I'm interacting with that whereas with other ones like it is annoying.

Participant Number 8 Age: 34 Profession: Teaching Associate Brand Chosen: Amazon Male

INT: Thank you for taking part in this research on value co-creation and just to let you know, for the purpose of this research I'll be recording you... so to begin with could you please tell me your name, age and your profession.

P8: My name is I am 34 years old and I am a teaching associate at the University of Strathclyde.

INT: Ok excellent, thank you So you know from the list of brands which I showed you, which brand did you choose ?

P8: Amazon..

INT: Alright ok, can you tell me why you chose Amazon?

P8: Probably because it's the one that I have the most familiarity with ,Asos.. I have a familiarity of it in terms of teaching about it to my students but not actually using it. Whereas Amazon is something, especially actually since the start of covid-19 I use even more so now than I probably have and have been in the past, but I am a very very regular user of Amazon.

INT: Ok so how long have you been a customer of Amazon?

P8: Proably about ten years, oh right here it says customer since 2011.

INT:Ok good, so just going back a bit when was your most recent Amazon service experience and can you tell me what you needed from them if you just talk me through that.

P8: Uhm I purchased something and it was delivered to me over the weekend.. I purchased something the other day actually and it was meant to be delivered to me today...Uhm so often what I will use Amazon for is specific items that I can't get here from back home or really as long as I don't need to try on clothing...

INT: So in terms of using Amazon can you just tell me how you go about your interaction with them, think like from the very beginning of the interaction process, right until the very end, like do you access them via the website, do you use the mobile app and when you use those platforms do you use your mobile device or a laptop? Just talk me through how you go about it.

P8: Usually if im at home it will be on my phone and it will be via the phone and I'll do a search for something and generally for the most part I find that to be the easiest if I'm either at home or out and about or whatever . Where I generally find where I will use the website is if I am at my work desk and then all of a sudden it dawns on me that I have to oder something and then I will use my actually laptop. So usually the process starts with ok what do I need, it may be the fact that I'm having a craving for a snack or something like that I can only get when im back home in the States so therefore I order a thing of goldfish crackers or either cracked macaroni and cheese but there's also things that we used it to order for as well like specific spices and hot sauces that you can't usually get in another places, whereas Amazon happens to sell it at a cheaper price usually and they're generally in stock which is the nice thing so, I'll kind of go through the search aspect of it ...and I generally find that I'm looking forwhen

I'm actually looking for it ...is that I'm looking at a. it's what I asked for and b. what are the actual customer ratings on it that I find to be incredibly important to determine if it is actually the right fit if it's clothing for example uhm, I've bought actually several pairs of shoes through Amazon actually, cause they're a lot easier... generally it's a a lot easier to find the exact item that I'm looking for versus you know trying to go to three or four different stores in the process, so I look at the reviews ...I may look at other places and if I'm actually online looking at the actual website or something like that I'm probably using my phone along with it often to double check other websites as well , kind of like acting like a dual screen

INT: Alright ok,

P8: Then usually from there I have my credit cards saved in Amazon at the given moment. Another way I use Amazon is through Amazon prime video, so I bought a smart tv probably about 5-6 minths or so, and now I'll just purchase videos or something like that through the actual smart tv so I wont even need to do it through my phone or the internet, it's just simple..

I hit the button on the remote it says amazon prime ..boom pops up and it pops it up directly onto the video section ..boom..hit ok and I'm done .

INT: Excellent ok, so you know in terms of when you're buying anything from Amazon and you go through the customer journey, how long would you say the journey takes from the point you realise that you have the specific need for the item to the point that it's actually delivered to you ?

P8: Till it's actually delivered to me ?

INT: Yes..

P8: Uhm the shortest I've seen it is, I think I've ordered something that was same day delivery like I ordered it early in the morning and I got it later on that day, so in that case we're talking maybe 7-8 hours, if I'm ordering a video though I guess it's instantaneous...uhm on average, generally it's because I'm a prime member so it allows me to get shipping faster .

INT: Ok let me take you back actually what about from the point you recognise you have the need to the point you start searching to the point you purchase something.. I think you said you purchased something last week?

P8: It depends upon what it is , whether or not I know like alright I want this very specific item ..do they have it or do they not ...and if they don't have it ok then fine I just come back later and try get it then , now that being said the other day I purchased a fan , and that one took much longer because I was looking for fans that were quiet, tower fans...the actual journey took if not days, and if I'm really investigating it and trying to figure out what I really want it can be anywhere from days to weeks.

INT: Yeah, ok because I guess you're not just looking at Amazon, you're looking at other retailers as well...

P8: Yeah, you know you're looking at other review sites, you're looking at is this review site a paid for ad , is it on google , is it an independent one, so on and so forth , so you try to figure out which ones are actually the best ones, which is the best thing to do so in that case it could take anywhere from a couple of days to weeks before I make an actual decision whether or not to actually go through the process

INT: Alright ok, so within the customer journey you get different points, so we could say point 1 is accessing the website, point 2 is hitting the search tab and looking for whatever you're looking for and point 3 is clicking the product. So what is it that you expect from each point of the customer journey, like so what do you expect from the website, what do you expect when you're searching and what do you expect when you're browsing through the products, like what are your expectations overall ?

P8: Generally I expect that when I go to the website it's going to show me things that I've searched for in the past, or purchased fairly regularly, maybe show me things that I might be interested in when I first get there.. Uhm the search aspect I expect that when I put in some form of keyword or basic keyword what not it's going to take me at least to where I want to go....I would hope so, it doesn't always happen though ..

INT: Ok..

P8: I think the thing I find most frustrating is...being here and being internationally I have access to both google.com and google.co.uk and for different websites , so occasionally I will search something and even though I'm in google UK it will come up with a website that will have American figures on it and it doesn't take me to the British one, and then if I want to find that same product from the American site in the British Amazon it's not always there so that's coming from using third party sites from using this and it's more to do with the integration with Amazon that kind of drives me a little bit nuts, and it's not necessarily Amazon's fault because all they're doing is the website is putting up a link and I'm clicking on that link and so forth. But I expect that once I've actually clicked on said item that I'm actually looking for, I expect that it's going to give me certain information about the product to a certain extent, I'll see reviews ...I often think that the hardest thing for me to find once I've actually clicked on the product is finding you know what's in the box and for me that's pretty annoying cause I want to know if there's batteries in the box per say. Something little but do I need to pick up that little extra thing. I've had instances where you think you're buying an entire product but then you get it and parts are missing.

INT: Ok so that's on one side of the expectations, what about on the customer service side of it like. Have you ever had a situation where you've had to use the live chat facility or anything like that and if you did what did you expect from the service?

P8: I've not had to use the live chat facility actually as of yet.. Where I have issues in terms of the customer service is that sometimes it's not always easy to find and you kind of have to remember where everything is, so it's like sometimes you want customer service and it's directing me to something I don't actually want .

INT: So in terms of your expectations about the customer service, would you say you expect it to be easier to find.

P8: Yeah I would expect it to be easier to find, I would expect it to be easier to navigate, once you're actually there , you know for whatever reason and I find it funny but I teach digital marketing and it's not like I'm a 70 year old man who has no idea whats going on here you know and sometimes it just makes me go – are you kidding me, why are you actually makin

this more difficult than it actually needs to be and in terms of navigation..but I do understand it's a huge website and realistically what we're talking about here is it takes me maybe a couple of extra minutes versus being instantaneous which is how it should be.

INT: Ok great, going back to the customer journey and the different points along the customer journey, what would you say motivates you to move onto the next stage. Like what motivates you to move when you search for the item, you find the item then click on it . What motivates you to make the purchase or read the reviews or whatever. P8:

P8: For me it ultimately just comes down to convenience, it is convenient in the fact that I don't have to leave the house. For example if I want Chiloola hot sauce, I mean yes I know I can get it at Tesco I can get it at a super Tesco or a super Sainsbury's or Asda's which is fine but one I don't always know if it's there so for me it's like ok I want that item and I know it's here and depending on the item I can pay a little bit more or a little bit less than I would if I actually went into an actual store , but right now particularly it comes for the convenience and I would say normally with convenience in general just because I know it's there and I know it's coming and if I have to wait a couple of days to get it that's ok , but particularly what's going on right now with covid -19 you know whether or not this actually the end of the earth or not I have no idea ...the last thing I want to do is be in an Asda or Sainsbury's with a lot of people who are just as scared and hungry as I am especially for something I'm sure won't be there ... so do I risk doing an entire shop for that one item. So not only is it convenient but for a better term it's safe.

INT: So in terms of your emotions, would you say you have any emotions when you're moving along the customer journey ..

P8: For most of the time, the customer journey is more of a pleasant one because it's kind of like a digital version of Argos. You look to find your thing, you read about it quickly, ok boom hit, 24 hours later package shows up on your door. There's a part of it I think I really enjoy when clicking it because it's kind of like Christmas , cause I know the second someone knocks on my door I'm like oooh Amazon is here with my package, it's arrived . I guess getting the package now has become more and more of a common place because when I was a kid the only time you really got packages was at Christmas and your birthday when your relatives were sending you something so maybe there's a bit of a nostalgic feel in the sense there or maybe there's a bit of like ha ha ha it's Christmas yeah.

INT: Ok great now in terms of your perceptions, how do you feel with regards to the different contact points that Amazon has along it's customer journey. So contact points

are you know the website, the reviews themselves, the live chat or even the chatbot. I mean do you think these contact points meet your needs?

P8: Yeah I think it is , let me ask you this , could the contact point also be the delivery driver as well ?

INT: Yeah absolutely ..

P8: Ok so that's where my only issue comes with Amazon, by enlarge the other contact points are quite good. Like going to the website I can find what I'm looking , usually I would say 90% of the time what I'm looking for comes up really quickly, sometimes you have to adjust the keywords or whatever and try not be to specific at times depending upon what you're looking for, but once you actually get to said item you click on it , you look on it I mean it is a pretty self explanorty and pretty easy thing to follow and my perception if it by in large is it looks pretty good I can usually find the information that I'm looking for , whether it be the reviews or whether it be the actual information on said product , how other people have used and like it and so on... it's easy enough for me ti find like if here's too many one or two star reviews then im like ok I'm out , even if it does have a few 5 star reviews , but if there's too many 1 stars I'll avoid it . So that point of contact is pretty good.. the thing I don't like is that I don't have an option of who my delivery comes through and especially if I'm returning something, like I would much rather ...even if Amazon might just say we'll charge you again for that.....

to get it out of my house, I might be willing to do it to not work with Hermes. **INT:**

Interesting that you mention this , can you tell me a bit more about this?

P8: I had an issue the other day so I returned the fan , because it turned out the fan is not any quieter than the fan that I already have so that's why I returned it. So the fan itself wasn't particulary cheap I was about 100 pounds roughly, so Hermes came to pick up the fan and yeah great they did it within the next day which is great but then this is the second time I've returned something with Hermes and it's the same delivery driver who tried to go ahead and scan and it's not scanning and the guy can't give me a receipt and he's like hey listen I'm going to have to take this back with me to my warehouse to ship it but I'm going to have to tell the manager what happened and you have no receipt, and that's like the second or third time that's happened.

INT: When it happened before did the return get processed?

P8: Yeah it was fine the return got processed on time but it was the same thing again and because of the scanner not working , he can't even write me a receipt saying he picked it up, like are you kidding me ?

INT: Ok I see,

P8: So yeah I don't even have the choice on who to potentially deliver with you know I understand that I do get that but Amazon uses so many delivery companies between Hermes, DPD and DHL , they use so many delivery staff that you never know who's coming. **INT: Yes I know what you mean about Hermes though, a lot of people seem to complain about them.**

P8: I mean I have more luck getting be hit by lightning and being bit by a shark at the exact same time than Hermes showing up when they say they're going to. Like if anything that's where my point of contact with them becomes skewed because it's like yeah, I understand you're a big company and you've gotta kinda diversify but why you are using these people?

INT: Ok thanks for that... so in terms of obstacles, I'm sure almost every customer experiences some sort of obstacle or barrier when they're moving along the customer journey from one stage to another , so do you have any barriers that you face when you're moving along the Amazon customer journey ?

P8: The only one that I would say is sometimes when I'm trying to find that specific information of what's in the box , that would be the one thing but that's more on the individual retailers versus probably amazon itself

INT: Ok..

P8: But the only other time that I would have an issue with it is if I'm returning items and that would be problematic with the customer journey, but other than that like I said 90% of the time it's not a big deal, 90-95% of the time it's a very easy straightforward convenient transaction

Part 2

INT: Ok excellent , so that's part 1 done, which was to do with the customer journey . Ok so now we're looking at questions to do with value and value co-creation, so value basically means what's important to you in relation to your service experience or brand. So based on your experience with Amazon, what would you say value means for you?

P8: I mean the convenience aspect

INT: Ok and can you think about anything else, could be related to the brand and it's product, the service quality, ease of use of their contact points, you know anything along those lines.

P8: Most of it does come down you know to the convenience and by in large I like how timely they are , I know it's not necessarily instantaneous you know like going store but with the store you know I have to get ready go into the store, you know whatever, you have to make yourself

presentable to be outside, whereas here it may take me a bit longer, but realistically it's not taking that long at all. I mean it comes to my doorstep the next day just after clicking it on my phone , it's amazing.

INT:Ok..

P8:So yeah it's a pretty timely process and then the logistics behind Amazon are amazing. My wife also uses it and whenever we order something we know it's going to be here between 12.45 and 4.45 which is way better than Scottish Power and British Gas who say we will be there between 9 and 9 .. So with Amazon at least I can somewhat plan my day around the delivery. I don't feel like I'm wasting my day waiting around for a delivery

INT: So in terms of the input you have with Amazon, do you think you have any input towards how the service is delivered by Amazon.

P8: No I don't think so..

INT: Do you ever give any feedback like whenever you buy something or make suggestions that are customer service related ?

P8: Generally not , it depends upon what it is , but sometimes I may.. Where I tend to give feedback is actually for food and restaurants because let's be honest they really need it and I personally don't think Jeff Bezos is going to care whether or not I like his delivery .

INT: Now do you ever support Amazon customers, like say if your wife is buying something, do you ever like help her out when she's looking for stuff. Sort of like an employee of Amazon in a way ?

P8: Often what we do , let's say we're buying something for the house .. like right before covid started we decided to get a shoe rack .. but because it was for the house it needed the combination of the two of us so in that case we're often looking at our phones at the same time watching tv and then we're going through different products and we'll send each other a Facebook message or a direct message saying here check this out , and in our own right we kind of become sales people which narrow it down to the item we actually like

INT: Ok, so in terms of how Amazon tailors it's service or product to you can you tell me a bit about that ?

P8: Yeah it's interesting because they do personalise stuff for me . So when I visit Amazon Uk it tells me when my next delivery is coming, it gives me the deal of the day and it's obviously inspired by my shopping trends which I'm looking at and so forth and it does help out quite a bit, and it's really varied from BBQ to woodchips to face masks to you know anything at the given moment, which I think is pretty cool that I can see all of that stuff right there. However on my Facebook, the thing that I get , like I'll get advertisements and I'll think I've never

looked at anything remotely close to that .. so like when I get advertisements from a third party site then they're not relevant at all ..like why are you sending me this, what messed up algorithm is this? But on they're app or their website their recommendations are generally catered to me which is awesome. Sometimes on Facebook they're pretty good but when they're off, they're way off.

Part 3

INT: Ok that's great , so now we're moving onto part 3 and this looks at the value that you gain from Amazon when you interact with them. So, during your service experience with Amazon, what is it that is important to you when you interact with them? I know you touched on convenience, what is another thing that's important to you? You also mentioned timeliness.

P8: You know another thing that I find important as well is variety, yeah part of the reason that I'm going to Amazon in the first place is that I can buy books, you know I can buy craft macaroni and cheese, I can buy a bee bee gun , like it is essentially the online version of Walmart in the US

INT: Ok..

P8: I mean before Covid kicked off I bought a huge amount of toilet paper because after experiencing natural disasters in the US I had to be well prepared for this. Like I ordered tonnes of toilet roll and face masks on the Friday before lockdown and it was all delivered on the Monday.

INT: Right well that was handy..

P8: Yeah so it's a combination of you know convenience and variety because you can get anything ranging from camera's, kitchenware, stuff for the pantry, doorbells , hell even instruments. I mean if I can't find it on Amazon it probably doesn't exist here. There's certain specialty items that I can really only find on Amazon like specialty American sauces and snacks. Like even all the Mexican spices and sauces that are a little bit more authentic, I can only get them on Amazon

INT: So how do you perceive the overall service experiences or your overall interactions that you've had with Amazon?

P8: Overall I would say they're actually really good.

INT: Ok, what would you recommend Amazon does to improve your service experience?

P8: To integrate probably a better experience in terms of recommendations via third party sites, so basically Facebook, Instagram stuff like that, do a better job in making sure it's more cared

for and personalised . It would also be interesting or nice for them to do an audit of their actual delivery suppliers on a regular basis, cause as I've mentioned Hermes is just terrible. When you're a company as big as Amazon everything is expected to be consistent.

INT: So apart from that..

P8: Oh wait I have one more , the other one is the Prime Video aspect. Like I'm already paying for Prime to have access to these videos and then on top of that now you're charging me an entire 20 pounds to watch a box set of whatever. I mean come on I'm already paying for it. I'd rather do a Netflix option.. Like ok here pay for the Prime , which allows you to get next day delivery service and give you access to the videos then pay an extra 7 pounds a month to have access to all those videos and TV shows.

INT: Ok interesting, so in terms of the first time you used Amazon which was what .. 2011, till the most recent time, can you tell me what changes you've noticed in how you interact with Amazon, this includes changes in the website, changes in the customer service, changes in delivery, what changes have you noticed ?

P8: I mean I remember using Amazon for a very very long time and all I can remember using it for was for my books , and I remember why I ordered my books from there was because it was cheaper than going to bookstore and buying my books from in-store. The only difference was you only had to get the books. So if I'm going from then until now, there's so much of a huge variety than there was then, and the shipping times have drastically, drastically gotten shorter, to the point where now if I see something that's going to take 3-4 weeks to get. You know my fist question is why?...does this seller even exist?

INT: So the so now we're moving onto part 4 of the interview which asks questions related to the task you had to complete yesterday with the Amazon chatbot

P8:Ok..

INT: Ok so can you tell how the conversation with the chatbot begun, did it introduce itself did it greet you? Like yeah just tell me how the conversation with the chatbot begun basically

P8: So yeah it said Hi' I'm Amazons messaging assistant, it gave me a bunch of things and then once I was able to finally interact and go no I don't want to...you know I want to talk to somebody and not talk about the last item I purchased.

INT: So going back how did you know it was a chatbot ?

P8: Just because it was very generic, you know usually if there's somebody else involved there's usually a name attached to it..whereas with this there's no name with it.

INT: What does it say ?

P8: It says Hi I'm Amazon's messaging assistant, please bare in mind the current Covid-19, but fortunately I am here to answer your questions and help you out with many things.

INT: How quickly would you say the chatbot responded?

P8: Very quickly actually..

INT: Ok what aspects of your interaction with the chatbot were important to you?

P8: Well even if the chatbot couldn't answer my question, that I had specifically, could it get me to the person that could, and for that task it did it's job..

INT: Ok that's great is there anything else you can think of ? Like what was important about that interaction with the chatbot for you..

P8: I think it's funny that the English and probably the understanding of the chatbot is actually better than the person they had talking to me .

INT: So would you say that's something important to you, maybe the language?

P8: You know not necessarily, but like we've all had those issues particularly in customer service where it takes 2-3 times longer because you're having to either a. explain the situation multiple times or the comprehension level isn't necessarily there and that can be rather frustrating and take a longer period of time. It also kind of doesn't give me the confidence that the person I'm dealing with actually understands.

INT: So what is it that you gain most from using the chatbot or interacting with the chatbot?

P8: Again, it's quick and convenient, and as long as it can get me to the right place or person then that's genuinely a great thing, uhm you know because it's helpingthe other side is of this is when you call a customer service line , the first point of contact say hey how are you and how can we help you today, then you tell them what you need and they say ok I can't help you with this, let me pass you through to so and so who can help you...but then you get passed over and then this contact can't help you either so they try pass you over again. So if the chatbot can actually narrow it down and get you to the right person quicker, which is incredibly beneficial in my opinion .

INT:Ok so to what extent would you say the chatbot addresses your service related needs particularly in the task you completed.

P8: I'd say it did a pretty decent job of it, yeah I mean I said it got me to the place I needed to, uhm it's not like I'm a huge user of the chatbot but the truth of the matter is had you not told

me where to find it on Amazon , I wouldn't have been able to get it .. Which is strange considering chatbots are meant to make the experience better for people and b lead to increase in sales. Whereas I hate Virgin Media, but anytime I go on their website, I'm hit with their chatbot instantly , is there anything I can help you with today ? To a certain extent I really do like it when you open a website and a chatbot comes up and says is there anything I can help you with today and it also just gives me an option to exit out of it. With Amazon though, there is no feeling of that and customer engagement whatsoever..

INT: So what would you say you found most challenging about using the chatbot during the task.

P8: Finding it ...

INT: What else would you say they should improve on with their chatbot ?

P8: The chatbot seems to work just fine and getting connected to the person is easy, but like I said if you hadn't told me or showed me where it was there's no way I would have known it existed and to be honest until this research you asked me to partake in , I didn't even know they had a chatbot.

INT: Yes I understand,

P8: I mean I'm looking at the website now and I can't even find how to contact them...I mean I can't find anywhere on this page that says contact us, or communicate with us or even a how can we help you, it's like they're hiding from me.

INT: So when you think of the chatbot in comparison to the other service channels that Amazon uses, specifically the human element , how do you compare these two?

P8: I was just thinking, the chatbot probably understood what I needed better than the human element. Or at least could communicate it to me more effectively,

INT: .. and what would you say overall.. I'm getting that you enjoyed interacting with the chatbot more than the human?

P8: I feel that if that conversation had been any more complicated he or she would not have understood at all what I was asking. I mean I'm also a teacher so I can't help but look at it from a grammar and language point of view, like I can't help it. Mine isn't perfect but at least I can demonstrate some form of ..like I can convey to you through words that I understand what you're saying. Whereas I didn't feel the same with this person or individual, but that's not saying that might not change with a different human. But anything more complicated than the basics I would not have gotten my answer...and it was also obvious that the answer by the human was a cut and paste.

INT: So would you say that with the chatbot you always get consistent responses? You will never get a variation in responses or service?

P8: Well at least with the chatbot, if the chatbot doesn't understand you it tells you right away and you can kind of go ok , well I actually need to speak to a person now, or I maybe need to phrase this slightly differently for the chatbot to understand ..so let me try that and see what happens. Whereas with the human element, you would hope that wouldn't be the issue. .

Part 6

INT: Ok so now we're moving onto part 6 of the interview, which focuses on your level of customer brand engagement with Amazon, particularly after using the Amazon chatbot. So in terms of your commitment towards Amazon, after using the chatbot , do you think that using the chatbot has any impact on your level of commitment towards Amazon?

P8: No, not at all... Because literally until recently I didn't know they had one...

INT: But does them having a chatbot make you more inclined to believe that they're more accessible now, so I know if I have a problem they're likely to be able to solve it because I can get in touch with them easily...

P8: No quite frankly, because that's not really what I expect from Amazon, I don't really expect there to be a customer service aspect of it ,

INT: Oh really ??

P8: Yeah I just automatically assume that there isn't going to be one..

INT: That's interesting that you think that why is that ?

P8: Because I've never seen it, so like I just always assumed it wasn't there. Like if something went wrong with a package I could actually contact the seller.. In the past I've contacted the seller and been like hey listen this and this is wrong.

INT: I see...

P8: So the issue is usually not with Amazon, the issue usually lies with the seller. So if I've had an issue with an item...I've never actually had an issue with Amazon itself, I've always looked at them as being the broker between me and the seller. Having said that though , like I don't....if something else were to come up that were better than Amazon, like did it more efficiently or did it cheaper or whatever, I would have no problem going to the next thing.

INT: Oh really... how come?

P8: The reason that I use it is because it's probably the biggest and I have access to things that I wouldn't really have access to in the UK from back home in the US. But if that ceased to exist, then I'd go onto the next thing.

INT: So to what extent would you share your experience of Amazon's chatbot say with your students for example, friends and family ? Would you tell them ..hey go use the Amazon chatbot it's great, if you aren't sure about something?

P8: No not at all, what I would do is use it from a student engagement point of view , where I would say ok how important are chatbots to you, does it make the difference in how you communicate or why you purchase or something like that because I think to that age group it does mean more to them than mine, me being a 35 year old man.. at the given moment versus somebody who is 20 years old and I think that technology does mean a little bit more. It doesn't mean I can't change and I won't be a part of that, but right now that's just the way it is for me.

T

INT: Ok...

P8: That being said though, I'd be like ok that's great now go and find the chatbot... and see if they do find it, because I know if they're on their laptops, they won't be able to do it. So that would be the reason. Then at that point I would ask them from their perspective on how they look at Amazon, because if I believe the moment I go into the H&M website, the first thing I see is customer service on the top left hand part. Then you click on the customer service tab and scroll to the bottom and click on contact us and what do you know a chatbot pops up right away, and it says Hi I'm H&M's handy chatbot, the live agents aren't here just now.....but it quickly lets you know that it's a chatbot and not a human being.

INT: Oh ok...

P8: So with H&M it definitely feels more inviting , the chatbot was easy to find, granted you do have to go searching for it ..but it's a logical search , like literally if you go to the H&M here there's not too much going on like Amazon where there's rubbish everywhere ...then you see customer service to the left, and scroll down the customer service tab, but once you do that you easily find the contact us button and the second you hit it, it brings up the virtual assistant and on top of that it gives you a number which you can call ...The virtual assistant which is 24/7 , when the actual opening hours are which is quite nice and then you can also contact them via social media...Where I have not seen a lick of that with Amazon

INT: Can you describe the extent to which your perception has changed towards Amazon after using the chatbot. Do you think they're more efficient, more accessible because they have a chatbot ?

P8: Well the funny thing is, now that I know it's there and I think it's hidden, now I think it's less accessible ...because it's hidden, I feel like they're hiding from me for whatever reason, I can't find any social media stuff on this , like I can't find anything at all... whereas with H&M I found it within 15 seconds.

INT: So you feel like the brand is hiding from you ?

P8: Yeah absolutely, it's weird.

INT: Yeah, so would you say interacting with the chatbot encouraged you to develop a better relationship with Amazon , or better engagement with amazon per say

P8: No not all, no effect because this is something that I use all the time because if it's convenience and time issues. To be honest I use Amazon to avoid people ...like to avoid going in-store right now. Like I don't want to touch people...

INT: Ok so the last question to do with engagement, can you describe your level of enjoyment when you interact with this, what do you enjoy most about your interaction with this chatbot?

P8: I don't know, it's interesting and strange cause you know you're not talking to a human being and yet it's having a conversation. So it's a little creepy to be honest, if I'm blunt about. But I enjoy the fact that it did actually understand what I was saying which was nice, my level of enjoyment with it I don't really know if I have a level of enjoyment with it other than the fact that I'm happy that it worked and you know that's nice and I'm also creeped out that it worked because it's not a human, but overall I did enjoy speaking to the chatbot.

Part 7

INT: Ok so the last part is to do with coronavirus and how this has impacted your customer-brand interaction with any brand. So now for this part you can choose any brand besides Amazon that you have interacted with quite regularly over the course of this period . So can you think of a brand?

P8: Online or off-line ?

INT: It could be anything?

P8: Sainsbury's quite a bit, Morrisons quite a bit, Asda's quite a bit, cause these are my local grocery stores, a little bit with Argos and then Newlands home bakery.

INT: Ok which one would you like to pick?

P8: I'll go with Morrisons...

INT: Ok so in terms of Morrisons, what has Morrisons actioned since the start of Covid-19?

P8: When it first started you had to wait in lines, the social distancing at 2 m apart, and there were only a certain amount of people in the stores at one given time , they directly controlled the flow of traffic in those stores. When it first broke out, everybody that grabbed a basket or whatever there was somebody there to spray the handle down or spray your hands and so forth, and people were clearly adhering to social distancing guidelines and really actually trying to do a good job of staying away and then on top of that Morrisons, not initially but eventually did put up a screen between you and the cashier, like employees in the stores were trying to avoid people. The other side of that there was an automated voice warning us about Covid-19, please stick to social distancing etc...then it would go back to Michael Jackson and then it would play again.

INT: So in terms of Morrisons themselves, have they done anything to make you feel like you're a valued customer since the covid outbreak. Have they said anything to you via email or have they done anything at all ?

P8: No nothing like that, we don't have their home shopping or rewards or anything like that uhm, if anything it's kind of interesting, when you're waiting in line to go to the cashier or you're waiting in line to go to the actual store, the security guard or staff will have a chat with you which they wouldn't normally do before, it always seems also like the conversation with anyone dealing with the checkouts is very superficial normally, but in this case it's like hey how you doing...

INT: So in what way would you say customer service has been affected by Covid-19 for Morrisons, this could of course be in relation to queuing times, any other forms of service?

P8: Queuing times have gone up definitely, but we go when there's less people around, now that we're talking 3 months into this, it seems like it's more of an annoyance to the employees than anything else and so like now employees don't seem to care about social distancing with customers, security is kind of like as long we are all under 50 people I'll let them all in at once, so immediately all the customers come in and go to the fruit station in a big group. Now there's no directions on how to walk, which is okay I don't mind that but the combination of the staff and the customers coming in and not caring much either that's where it coming a bit more interesting. There was one time I went into one of my other local Morison's a month or so ago where I went in and I did not feel safe. You know I really didn't, I actually complained. A couple once went in , walked up every aisle and didn't even buy a single thing after touching

almost everything. So the customer service side of it in terms of safeness has gone right out the window .

INT: Ok so I guess the way you interact with them hasn't changed right ? Cause it involves you just going in-store?

P8: Yeah that's the only way I shop..

INT: Ok has your relationship changed with Morrison's after the start of Covid?

P8: Yeah I used to really really like my local Morrison's cause it was actually quite a cool place, it was easy to get to, it was convenient, it's less than a mile away from me but since Covid, several times after Covid I have told my wife I am never going back there because I just don't feel safe, now we just pick when we're going to go

INT: Ok excellent, that's the end of the interview and thank you again for taking part in this.