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ANTECEDENTS AND CONSEQUENCES OF ONLINE CUSTOMER BRAND ENGAGEMENT IN BUSINESS-TO-BUSINESS IN AN EMERGING MARKET

By

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Abstract

The purpose of the research is to study the antecedents and consequences of online CBE in the context of emerging markets and B2B. The role of mediators between CBE and its consequences is yet to be fully explored. CBE has not been studied much in the B2B context in emerging markets.

Data was collected from ICT decision makers in South African and Kenya through an online survey on Qualtrics. In total, four studies were done, namely, a pilot study in South Africa, two main studies in South Africa using different samples and the last one in Kenya. A PLS structural equation modelling (SEM) was performed to test the hypothesis using SmartPLS4. A mediation analysis was done to check the effect on mediators between online CBE and its consequences.

The research shows that involvement, brand equity, participation and brand love are antecedents of online CBE. Relationship quality amplifies the effect of online CBE on its consequences, namely loyalty, brand advocacy, brand preference and purchase intention.

This research provides business and brand managers with ideas on how to approach online CBE in B2B. It shows that a multidimensional approach to online CBE is better because each of the online CBE components are affected by the antecedents differently and each one has a different effect on the consequences. Mediators amplify the effect of online CBE on its consequences.

This thesis makes a contribution in four ways: a) It makes an incremental scholarly contribution by bringing together constructs from various cognate theories and study areas relating to relationship management; and investigates how the predictors of customer brand engagement and how customer brand engagement predicts the outcome variables, b) It makes a practical contribution in the sense that it adds to our understanding of the factors that influence customer brand engagement and the expected outcomes of customer brand engagement in practice, c) It also makes a contribution relating to the study of emerging market contexts by drawing data from more than one emerging market country, namely, South Africa and Kenya d) The thesis delves into highly significant and relevant topics, with a notable focus on introducing the construct (CBE) in the B2B context,

incorporating data from emerging markets. This pioneering inclusion of CBE in a new context highlights the thesis's exceptional contribution, as well as originality, bridging a research gap and expanding knowledge in the field.

Key words: online customer brand engagement (CBE), relationship quality, emerging markets, quantitative, business-to-business (B2B)

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I would like to thank my financial sponsors, the respondents, Wits support staff and the Wits administrative staff. My uttermost appreciation goes to Borderless Access who gave me access to their panels in South Africa and Kenya. Above all, I thank God for allowing me an opportunity to study my PhD at Wits Business School.

Dedications

This PhD is dedicated to the 'Five Musketeers' who are my wife and my children. Despite a lot of life issues happening from the time I started my PhD, until I completed, they allowed me to be and have enough time to work on my research. I dedicate this PhD to my late parents. My late parents appreciated education and they enrolled me and my siblings to the best schools in their time. I challenge my family to continue this legacy and encourage all their descendants to continue to access education.

Declarations

I, Tonderai Sibanda, declare that this thesis is my own unaided work. It is submitted in fulfilment of the degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. This research has not been submitted before for any degree or examination at this or any other university.



Tonderai Gilbert Sibanda

April 2023

List of abbreviations

AVE	Average variance extracted
B2B	Business-to-business
B2C	Business-to-consumer
CB-SEM	Covariance based structural equation modeling
CBE	Customer brand engagement
CCT	consumer culture theory
DMU	Decision making unit
ESOMAR	European Society for Opinions and Marketing Research
f-square	Effect size
GDP	Gross domestic product
H	Hypothesis
HTMT	Heterotrait-monotrait
ICASA	Independent Communications Authority of South Africa
ICT	Information and communications technology
ISP	Internet Services Provider
ISPA	Internet Services Provider Association
IT	Information technology
MICOM	Measurement invariance composite model
NFI	Normed fit index
p	P-value
PhD	Doctor of Philosophy
PLS	Partial least squares
PLS-SEM	Partial least squares structural equation modeling
Q-square	Predictive relevance
R-square	Coefficient of determination
SEM	Structural equation modeling
SMSR	Root mean square residual
Study 1	Pilot Study 1 with 37 respondents from South Africa
Study 2	South Africa second study with 85 respondents
Study 3	South Africa third study with 160 respondents using a Borderless Access South Africa panel
Study 4	Kenya study with 217 respondents using a Borderless Access Kenya panel
T	T-statistic
VIF	Variance inflation factor
β	Beta

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CHAPTER 1: INTRODUCTION

1.1 Background

This study is positioned in relationship marketing, examining the antecedents and consequences of online customer brand engagement (CBE) relevant to the business-to-business (B2B) setting within the emerging markets of South Africa and Kenya. CBE is a marketing concept. The thesis introduces the construct CBE in the B2B context, incorporating data from emerging markets expanding the knowledge in the understanding of CBE.

CBE has mostly been studies in the B2C context. Alamoudi and Alharthi (2021) conclude that positive correlations exist for online brand experience, brand love and customer engagement in a B2C survey in the Saudi airline industry. Algharabat et al. (2020) investigate the antecedents of CBE in business-to-consumer (B2C) using fans of mobile providers and conclude that involvement, consumer participation and self-expressive brand influences CBE. Touni et al. (2020) confirm that customer brand experience and customer involvement has a significant effect on customer engagement (CE) in a B2C study of a hotel brand community. Harrigan et al. (2018) show that involvement has an effect on CBE in a B2C study on social media for travel decisions.

A number of consequences of CBE, mostly in B2C, have been investigated. Almoudi and Alharti (2021) determine that customer engagement (CE) affect repatronage intention in a B2C study within the Saudi airline industry. Alghabarat et al. (2020) review the effect of CBE on customer based brand equity (CBBE) within B2C using fans of mobile phone companies. They conclude that cognitive process and activation impact one component of CBBE brand loyalty. Cognitive process, affection and activation has no effect on brand awareness/associations or perceived quality. Touni et al. (2020) conclude that CE has a role in building brand relationship quality in a B2C study of a hotel brand community.

1.1.1 Online customer brand engagement

Online CBE occurs when customers engage with a brand online and this has been studied as engagement on social media (Hollebeek et al., 2014), as brand community engagement

(Brodie et al., 2013) and as engagement to a website (Calder et al., 2009). The engagement concept is underdeveloped and requires more study (Hollebeek et al., 2014; Junaid et al., 2019). Decision making in business-to-business is complex. There is a need to use the engagement lens to understand better complex decision making (Bolton, 2011). Empirical work is required to test the different engagement scales (Hollebeek et al., 2014; Vivek et al., 2012).

Engagement is a relational concept (Brodie et al., 2011). It has different aspects and has its roots in several fields, such as psychology, education, marketing, information systems, health and human resources (Brodie et al., 2011; Hollebeek, 2011a). There are two schools of thought around engagement, namely, a uni-dimensional approach and a multi-dimensional approach. In marketing, engagement has three dimensions which are cognitive, emotional and behavioural components (Brodie et al., 2011; Patterson et al., 2006; Vivek et al., 2012). CBE is when the focal engagement object is a brand.

1.1.2 Business to business marketing

B2B marketing involves selling and buying of goods and services between businesses. The B2B market differs with the business-to-consumer (B2C) market in several ways (Mudambi, 2002). In B2B marketing there are fewer customers, the transactions are normally complex, there are sophisticated purchasers and there is reliance on personal selling (Mudambi, 2002). The decision-making within a B2B market is normally done by several people or by a committee and the decision-making within the B2C market is normally by one person (Leek & Christodoulides 2011a).

B2C marketing occurs when companies provide services or goods to the consumers. Many of the initial marketing theories were developed to optimise the transaction between the company and the consumers. Notable theories include the 4 P's (product, price, promotion and place). Coviello and Brodie (2001) indicate that marketing focuses on dichotomies such as consumer versus business, goods versus services, geographic scope, small versus large, and new versus established. Fern and Brown (1984) argue that B2B marketing and B2C marketing are not fundamentally different. Coviello and Brodie (2001) did a study which tested the hypotheses that companies in B2C markets would use transactional

marketing with database marketing and that companies in B2B markets would use interaction marketing with network marketing. The results indicated that both the transactional and relational concepts were relevant in both B2C markets and B2B markets.

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1.1.3 Emerging markets

The insights gained in the emerging markets cannot be generalised because of the different market environments (Burgess & Steenkamp, 2006; Sinha & Sheth, 2018). This makes it necessary to situate research in specific emerging markets testing different constructs and theories. The characteristics of emerging markets include but are not limited to market heterogeneity, socio-political governance structure, unbranded competition, chronic shortage of resources and inadequate infrastructure (Sheth, 2011; Sinha & Sheth, 2018). The success of companies will depend in their ability to expand their businesses and tackle the market in emerging markets (Burgess & Steenkamp, 2006; Sinha & Sheth, 2018). Burgess and Steenkamp (2013) argued that to remain relevant, marketing scholars must develop new theories and models that are applicable to emerging markets.

Seyedghorban et al. (2016) argue that there is not enough B2B branding research in emerging markets. Seyedghorban et al. (2016) propose a number of areas in B2B branding, which need further study, and these include: theoretical and methodological issues, how companies can achieve a strategic competitive advantage, understanding intangible attributes of B2B branding, more empirical evidence in B2B branding and research in specific contexts and solutions in B2B branding. Kenya and South Africa were selected as emerging markets to study as they were considered easier for the researcher to collect data from these two countries.

1.1.4 Decision-making unit

The unit of study in my research is a decision-making unit or buying centre within B2B in South Africa and Kenya. In B2B, purchasing is normally done by a group of people (Chavan et al., 2019; Hawkins & Mothersbaugh, 2013; Johnston & Bonoma, 1981; Robson et al., 1967; Silk & Kalwani, 1982). That group is multidisciplinary and may include anyone involved in the business, such as the end users, engineers, accountants, sales, marketing,

procurement and the executives who approves the project within the company (Hawkins & Mothersbaugh, 2013).

1.2 Towards antecedents and consequences of online CBE in B2B in an emerging market

1.2.1 Research Problem

Comparative CBE research across industries and cultures is needed to make the nature of the construct clearer (Hollebeek, 2011a). The construct online CBE in the B2B context, incorporating data from emerging markets has not been fully studied. A number of conceptual models have been developed for online CBE (Brodie et al., 2013; Dessart et al., 2015; Hollebeek et al., 2014). This research uses a literature review to develop a model of online CBE for emerging markets in a B2B context and to validate the model, using the decision-making unit as the unit of study.

This study focuses on a number of research gaps. The engagement concept is underdeveloped, and it needs further research. There is a shift towards relational marketing and this calls for development of different perspectives on customer engagement in marketing. More insight into specific drivers of customer brand engagement is required (Hollebeek 2011; Junaid et al., 2019). The MSI recommends study of effective strategies to drive deeper and lasting customer engagement with companies in the period 2018-2022. In the period 2022-2024 the MSI identify engagement between customers and companies as topical area focusing on the investigation of customer engagement with low involvement category of products. Research to test the applicability of different engagement scales across different contexts analysing the convergent and discriminant validity of the scales (Vivek et al., 2012; Hollebeek et al.,2014). Comparative customer brand engagement research across industries and cultures will make the nature of the construct clearer (Hollebeek 2011). All emerging markets are different making it necessary to situate marketing research in different emerging markets (Burgess & Steenkamp, 2006; Sinha & Sheth, 2018). Research should assist to build customer-focused engagement strategies. The research needs to assist to determine which engagement dimensions are most useful for which customers (Vivek et al., 2012).

Bolton (2011) calls for a study of the relationship between existing marketing constructs like brand equity and customer engagement. Loyalty was found to be a consequence of customer engagement (Bowden, 2009; Brodie et al., 2013; Hollebeek, 2011a). This study tests brand awareness, uniqueness of brand associations and perceived quality as antecedents of online CBE. Brand awareness is important within B2B because companies normally work with a few suppliers for a specific solution. The company needs to be aware of the brand for it to be considered. Keller (1993) identifies types of brand associations, favourability of brand associations, strength of brand associations and uniqueness of brand associations. Within B2B, companies normally goes through a selection process. The types of brand associations, which are the attributes, benefits and attitude, will determine if a supplier is able to provide the required solution. The types of brand associations are a basic requirement in B2B for a supplier to be included in the consideration set. A major differentiator of similar suppliers will be the uniqueness of brand associations and perceived quality.

Alamro and Rowley (2011) argue that brand preference and brand loyalty are independent constructs and in markets, which are competitive, there is less brand loyalty and promoting brand preference could be an effective strategy. In this study, brand loyalty and brand preference as consequences of online CBE was tested. The relationship between brand love and engagement is not yet fully explored (Junaid et al., 2019). In this research, brand love was tested as an antecedent of online CBE. The study aims to evaluate the antecedents and consequences of online CBE within emerging markets. Kenya and South Africa were selected as the emerging markets in which to situate this study.

1.2.2 Research questions

The following research questions were formulated to assist in addressing the research problem.

1.2.2.1 What are the antecedents of online CBE?

1.2.2.2 Does online CBE affect relationship quality?

1.2.2.3 How does relationship quality affect the consequences of online CBE?

1.2.2.4 Does relationship quality mediate online CBE and the consequences of online CBE?

1.3 Delimitations of the research

The unit of study is the decision-making unit as a group and how they respond to online CBE with their supplier websites. Anyone who is a member of the decision-making unit was asked to partake in the study in the companies that were approached. The study is not about the dynamics within the decision-making unit among its members.

1.4 Justification for the research

The thesis aims to introduce the construct CBE in the B2B context, incorporating data from emerging markets and expanding the knowledge in the understanding of CBE. This research contributes to Seyedghorban et al.'s (2016) call in doing empirical studies for issues relevant to the B2B branding within emerging markets. Research in how B2B companies can integrate information from different channels to enable effective customer engagement and use the customer engagement lens to understand better complex decision-making groups is useful (Bolton, 2011). Not much research has been done on the relationship between brand love and engagement (Junaid et al., 2019). This research uses brand love as an antecedent into online CBE and tests this within a B2B environment.

The Marketing Science Institute's (MSI) research priorities from 2014-2024 include customer engagement as a topical issue to study. In 2014-2016, one of the priorities is to encourage the study of optimising social contracts with the customers and how to conceptualise customer engagement and measure it. In the priority list from 2016-2018, one of the supported research areas is delivering integrated real time experiences in context and there is a specific question requesting how to design the company's physical and digital offering to engage customers at every point. In the period 2018-2020, the MSI calls for research around strategies, which allow deeper engagement with the company. One of the recommended research areas in the priority list form 2020-2022 is how to create more

lasting customer engagement with customers. The MSI research priority for 2022-2024 includes how companies could increase engagement for goods or services with low involvement.

The engagement concept is under-developed, and it needs further research (Junaid et al., 2019; Hollebeek et al., 2014). This research expands the understanding of the CBE construct. There is a shift towards relational marketing and this calls for the development of different perspectives on customer engagement in marketing. Insight into specific drivers and consequences of customer engagement are required (Bolton, 2011; Hollebeek, 2011a; Hollebeek al., 2014; Junaid et al., 2019).

There is room for more work to test the applicability of different engagement scales across different contexts, looking at the convergent and discriminant validity of the scales (Hollebeek et al., 2014; Vivek et al., 2012). The relationship between existing marketing constructs like brand equity and customer engagement needs to be studied (Bolton, 2011).

Comparative CBE research across industries and cultures is required to make the nature of the construct clearer and to refine and test further the relationship between CBE and loyalty (Hollebeek, 2011a)

Research should assist in building customer-focused engagement strategies. The research needs to determine which engagement dimensions are most useful for which customers (Vivek et al., 2012). Customer engagement in a virtual online brand community was studied with six respondents (Brodie et al., 2013). There is an opportunity to do further studies on online CBE with larger groups. Studies are needed to check if CBE is always positive and if there is an optimum CBE intensity level (Hollebeek et al., 2014).

1.5 Significance of study

The research is aimed at extending the body of knowledge in online CBE and relationship marketing. Hollebeek (2011) calls for comparative research for customer engagement within industries and across cultures to unravel customer engagement. This research situates the study of online CBE within South Africa and Kenya. The research contingency matrix in appendix C captures a summary of the research.

This research contributes to the validation of the CBE scale proposed by Hollebeek et al. (2014). Theoretical knowledge of the interaction of the online CBE constructs in the context of an emerging market are extended by empirical studies. Customer engagement is contextual, and the focal engagement object will affect the intensity of each of the engagement constructs which are the cognitive, emotional and behavioural of customer engagement.

This research verifies the impact of brand equity and brand love on online CBE. It tests the impact of online CBE on relationship quality comprising trust, customer satisfaction and commitment within the B2B environment.

Using the results of this study, companies will be able to identify strategies, which will allow them to develop higher levels of online CBE. Understanding driver and consequence variables of online CBE can be used to develop winning strategies for businesses.

This thesis makes an incremental scholarly contribution by bringing together constructs from various cognate theories and study areas relating to relationship management, and investigates the predictors of CBE and how CBE predicts the outcome variables. It makes a practical contribution to our understanding of the factors that influence customer brand engagement and the expected outcomes of customer brand engagement in practice. This research makes a contribution relating to the study of emerging market contexts by drawing data from more than one emerging market country which are South Africa and Kenya. The thesis delves into highly significant and relevant topics, with a notable focus on introducing the construct (CBE) in the B2B context, incorporating data from emerging markets. This pioneering inclusion of CBE in a new context highlights the thesis' exceptional contribution as well as originality, bridging a research gap and expanding knowledge in the field.

1.6 Thesis structure

Chapter 1: Overview of the study

Chapter 1 provides an overview of the research. It discusses online CBE, B2B marketing, emerging markets and the decision-making unit. It explains the research problem, research questions, delimitations of research appended by justification of the research and its significance.

Chapter 2: Literature review

Chapter 2 reviews literature related to the study. It discusses the theories that underpin the study. The chapter develops a conceptual model which indicates the relationships between key constructs and the associated hypotheses.

Chapter 3: Research approach, procedures and method

This chapter discusses the research paradigm, research strategy and research design. In doing so, the chapter explains the population and sample, research instrument and data collection procedures. It further discusses data analysis methods and procedures employed for interpretating data. The chapter is appended by a discussion on the limitations of the study and ethical procedures followed.

Chapter 4: Results pilot study 1

This chapter presents and analyses data collected from the pilot study 1 done in South Africa in B2B and information communications technology (ICT) industry

Chapter 5: Results study 2

The results of Study 2 done in South Africa are presented. The sample was obtained by directly approaching companies in South Africa in B2B and ICT.

Chapter 6: Results study 3

The results of Study 3 done in South Africa are presented. The sample was obtained from Borderless Access panel in South Africa in B2B and ICT.

Chapter 7: Results study 4

The results of Study 4 done in Kenya are presented. The sample was obtained from a Borderless Access panel in Kenya in B2B and ICT.

Chapter 8: Multigroup analysis

A multi-group analysis was done to tests the difference between the study done in Kenya and the studies done in South Africa.

Chapter 9: Summary, limitations, recommendations and conclusions

The chapter provides the study summary, interpretation of findings, limitations, recommendations and its impact on the identified knowledge gap. This conclusion chapter sums up the research in one location and captures the essence of the entire study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This study examines the antecedent and consequences of online customer brand engagement (CBE) relevant to the business-to-business (B2B) setting within the emerging markets of South Africa and Kenya. This chapter provides the context of the study. It explores key concepts related to this study which are brand concepts, engagement, CBE, review of previous studies which tackled the antecedents and consequences of online CBE and theories which have been used to study CBE. The conceptual framework and the associated hypotheses were developed in this chapter.

2.2 Context of study

This study uses decision makers in the ICT industry within business-to-business (B2B) in emerging markets. Their online interaction with information related to their suppliers is analysed. To understand the context more, a comparison between the online and offline business environment is done. Business to business (B2B) is compared to business to consumer (B2C). The buyer behaviour in B2B is presented. A detailed analysis is done of what an emerging market is.

2.2.1 Online and offline business environment

Rose et al. (2011) researched the difference between online and offline customer experience, and they identified four differences between offline and online customer experience. Personal contact is high to medium offline and high online. Information provisioning varies over different media offline and is very high online. The period for interaction is determined by the company offline and online, it is determined by customer. To present the brand offline, a number of tangible devices are used but online is mainly audio visual.

The shopping experience is a key differentiator between the online and offline business environments (Li et al., 2015). Two operational factors the delivery time and inventory

affect both the online and offline business. The online business has an inventory cost advantage, and the offline business is able to deliver quickly as items are kept in the store (Li et al., 2015).

There are marked differences in the decision-making in the offline environment compared to the online environment. Customers use the brand to estimate the online retailer credibility (Smith & Brynjolfsson, 2001). The effect of brand awareness in the decision-making is greater online than offline (Danaberet al., 2003; Degeratu et al., 2000; Saini & Lynch, 2016). This is consistent with the accessibility-diagnostic model because the less readily available alternative diagnostic information is, the more influence any cue, such as brand familiarity, will have on decisions (Saini & Lynch, 2016). There are more concerns around trust, security and privacy for online compared to offline transactions (McCole et al., 2010).

Chai et al. (2012) contend that offline social norms persist in the online environment. This means that though the offline environment is different from the online, there is certain human behaviour, which we need to carry into the online environment. Li et al. (2015) see the online channel as just another channel of doing business, which needs to be optimised using the current best business practices. Another dichotomy of business is the B2B market and B2C market.

2.2.2 Difference between B2B and B2C markets

There are differences in the markets and products in B2B and B2C (Jussila et al., 2014; Miciak & Desmarais, 2001). The B2B products are more complex and cost a lot and they take time to develop (Jussila et al., 2014; Miciak & Desmarais, 2001). The customers for businesses are few. B2C products are less complex, take a shorter time to build and cost less. The customers in B2C are individual consumers. In B2B purchase professionals make purchase decisions. As the product or solution becomes more costly and has a greater impact on the company, a decision-making unit normally makes the purchasing decisions. The decision-making unit may comprise of end users within the purchasing company, people tasked with the purchasing process and executives responsible for the budgets.

The purchase process in B2B is formalised. In B2C, the purchasing process is informal, and normally involves one person or a number of people in the family. The research done by the end user on a product or service in B2C is less rigorous than that done in B2B. In B2B, the product or solution attributes, cost and relationship with the seller are important. In B2C only attributes and cost will be important.

Advertising is a critical success factor in B2C (Jussila et al., 2014). However, there is a different view, which says that in relationship marketing, there is not much difference in approach in B2B and B2C (Coviello et al., 2002).

2.2.3 B2B buyer behaviour

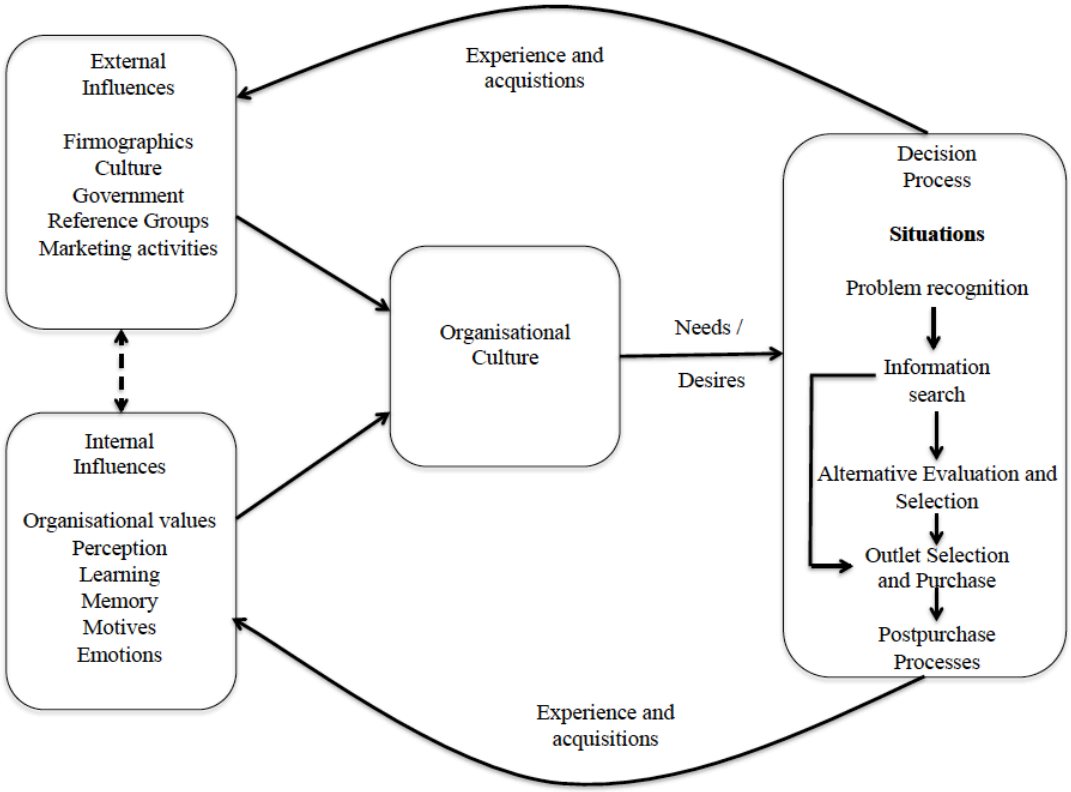


Figure 1: B2B purchasing process
(Hawkins & Mothersbaugh, 2013, p.661)

Hawkins and Mothersbaugh (2013) map out the B2B buyer behaviour, identifying external influences, internal influences and organisational culture as key drivers to the decision process, as shown in figure 1. The decision-making unit (DMU) or buying centre are the

people who make the purchase decision, and that group of people is normally multi-disciplinary with individuals from all aspects of the company in question (Chavan et al, .2019; Johnston & Bonoma, 1981; Hawkins & Mothersbaugh 2013; Robson et al., 1967; Silk & Kalwani, 1982). The DMU could include sales, marketing, engineering, accountancy, pharmacists, doctors and procurement, depending on the industry in which the purchasing is taking place.

The complexity of the purchase decision will depend on whether it is a new purchase, modified re-purchase or a straight re-purchase (Hawkins & Mothersbaugh, 2013). The key steps in the decision-making process will involve the following processes: identification of the problem, searching of information to solve the problem, development of evaluation criteria to differentiate the available offerings, selection of solution and ordering it and activities which happen after the solution has been bought. Within B2B, the online environment is now influencing the purchasing and some of the purchases are now being done online (Schoenherr & Morbert, 2011). Another factor, which has an impact on business, is whether it is done in the developed markets or emerging markets.

2.2.4 Emerging markets

Emerging markets provide a different context as the context matter in marketing studies (Hunt, 1991; Sheth, 2011). Sheth (2011) identified four research streams in international marketing. These research streams are reasons why successful products in local markets do not do well in international markets, localisation versus standardisation debate, country of origin effects and brand strategies of being global, regional or local.

There are many classifications of emerging markets in marketing literature and in use, which are inconsistent (Burgess & Steenkamp, 2006). In general terms, emerging markets include some of the countries in the former Soviet Union, Eastern bloc, Asia, Africa, Middle East and Latin America (Burgess & Steenkamp, 2006).

Globalization of the market is an issue with which companies have to deal (Burgess & Steenkamp, 2006; Burgess & Steenkamp, 2013; Sinha & Sheth, 2018). Saturation in most home markets is leading multinationals to seek for growth in the emerging markets (Sinha & Sheth, 2018). Globalisation results in increased competition in a market for both foreign

and local companies (Burgess & Steenkamp, 2006). This led academics to pay attention to international marketing (Burgess & Steenkamp, 2006).

Sheth (2011) predicts that by 2035, the gross domestic product (GDP) of emerging markets will surpass that of the more high-income markets. The emerging markets are where there is the most growth, representing 36% of the world GDP (Sinha & Sheth, 2018). There is a limitation on the relevance of the research which was done in highly industrialised economies for emerging economies. Burgess and Steenkamp (2006) and Sheth (2011) recommended that there is need to do more marketing research in emerging markets. Sheth (2011) questions the future role of marketing in emerging markets, asking whether the emerging markets will be driven by marketing, or if they would drive the future marketing practice.

Burgess and Steenkamp (2006) came up with a framework for doing scientific marketing research in emerging markets. The framework has four stages, which are theory development, acquisition of meaningful data, data analysis and learning. Constructs borrowed from the highly industrialised countries can be used for emerging markets and research has shown the universal applicability of some of these constructs (Burgess & Steenkamp, 2006). However, it is important to have the constructs in emerging markets firmly grounded in theory (Burgess & Steenkamp, 2006; Sinha & Sheth, 2018). Emerging markets are a living laboratory, and they offer constructs which could have been missed in earlier research in the highly industrialised countries (Burgess & Steenkamp 2006; Sheth, 2011).

Major growth in the emerging markets is coming from making non-users to be users (Burgess & Steenkamp, 2006; Sinha & Sheth, 2018). However, the facets of the emerging market make it difficult to tap into that market (Burgess & Steenkamp, 2006; Sinha & Sheth, 2018). These facets include market heterogeneity, governance issues, shortage of resources, competition from non-branded products and inadequate infrastructure.

The realities of the emerging market question fundamental principles of marketing, such as, market segmentation, market orientation and brand equity (Seth 2011). Sinha and Sheth (2018) came up with a theoretical framework to manage the negative emerging market

features. Sinha and Sheth's (2018) approach focus on educating and empowering the customer and uses Sheth and Sisodia's (2012) 4 A's framework which is made up of accessibility, awareness, acceptable and affordable solutions.

Sinha and Sheth (2018) 4 A's conceptual paper focuses on consumer products, and they call for a check on the applicability of the 4 A's framework in a business-to-business context. It is difficult for companies to copy and reproduce offerings from one emerging market to the other (Sinha &Sheth, 2018). Multinational companies in emerging markets are competing with local companies. The global companies are becoming more local and the local companies becoming more global. This has tended to make the local companies develop aspiration to go to new markets (Sinha & Sheth, 2018).

An interesting research stream would be to study how emerging market companies are becoming multinational and how they are affecting the global markets and marketing in general (Kumar & Steenkamp, 2015; Sinha & Sheth 2018). One way companies in the developed worlds are competing with local companies in the emerging markets is to bring their brands into the emerging markets. The next section now discusses brand concepts and their value.

2.3 Brand concepts

2.3.1 Branding

Branding is a desire by humans to create a personal social identity, which involves belonging to a certain group, standing out and having a good reputation (Bastos & Levy, 2012). Keller and Lehman (2006) provide the value of brands: brands mark company offerings and simplify the choice making process for customers. Furthermore, brands provide a promise of quality, reduce risk and allow trust to flourish, brands reflect customer experience, determine the effectiveness of marketing programmes like advertising and they are assets with a dollar value tied to them (Keller & Lehman 2006).

Brands have impact at three levels, customer market (customer-based brand equity), product market (company brand equity) and the financial market (financial brand equity)

and the value provided by these benefits is called brand equity (Keller & Lehman, 2006). The customer-based brand equity is important because customers decide with their wallets what is important for them.

A product or service's brand equity positively affects future profits and future cash flows, product or service pricing, stock market prices, competitive advantage and marketing success (Yoo & Donthu, 2001). Yoo and Donthus (2001) developed a scale to measure customer-based brand equity and this scale is comprised of brand loyalty, perceived quality and brand awareness or associations. In this study, brand loyalty is a consequence of online CBE. Higher levels of brand equity could mean high levels of brand loyalty.

2.3.2 Brand equity

Aaker (1991, 1996) defines brand equity as brand loyalty, brand awareness, perceived quality, brand association and other brand assets. The other brand assets include patents, trademarks and channel relationship partnerships. The Aaker (1991) brand equity model is illustrated in figure 2.

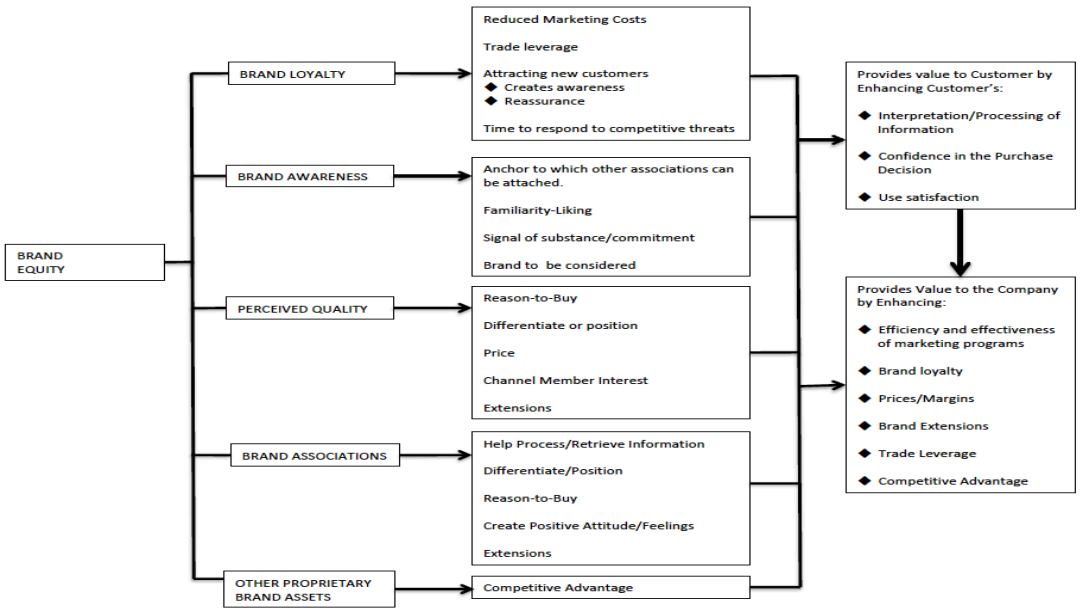


Figure 2: Brand Equity Model
(Aaker, 1991)

Keller (1993) conceptualises customer-based brand equity as the differential effect of brand knowledge on consumer response to the marketing of the brand (Keller, 1993). The dimensions of brand knowledge are illustrated in figure 3. Brand Knowledge is made up of brand awareness and brand image (Keller, 1993). Companies gain a competitive advantage through successful brands. Therefore, it becomes imperative to measure brand equity (Lassar, Mittal & Sharma, 1995).

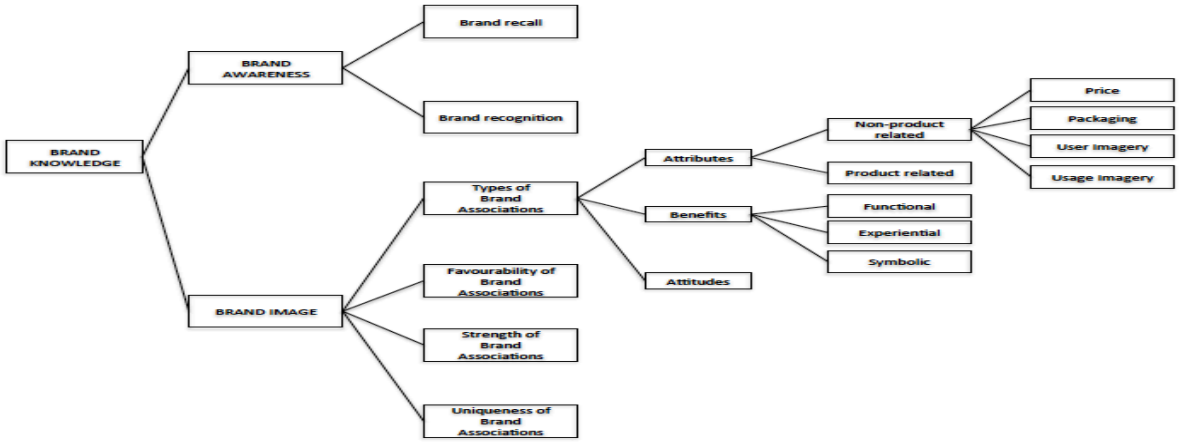


Figure 3: Dimensions of brand knowledge
(Keller, 1993, p.7)

The question to ask then is how to create customer brand equity? In response, there is a need to create a brand, which has favourable, strong, and unique brand associations (Keller, 1993). The name of a brand provides an identity to the brand. The brand name can enhance brand awareness or brand image (Keller, 1993). Companies need to develop supporting marketing programmes, which enhance both the brand awareness and the brand image. The company or other groups outside the company could create brand beliefs (Keller, 1993). Secondary brand associations will have a positive impact on the image of the brand if they positively affect the favourability, strength and uniqueness of the brand associations (Keller, 1993).

Customer based brand equity can be measured directly or indirectly (Keller, 1993). The direct method measures the effect of brand knowledge on the customer response to the company's marketing (Keller, 1993). The indirect approach measures one aspect of brand knowledge by measuring brand awareness and how the brand associations are related (Keller, 1993). Brand equity has been looked at from a number of perspectives, which include financial, and customer based (Lassar et al., 1995). Brand equity is

multidimensional and depends on the knowledge in the customer and the actions which the company could take to exploit this knowledge (Keller, 1993). Marketing could assist the customer's ability to recall, recognise and affect the favourability, strength and uniqueness of brand associations (Keller, 1993). Marketing could build knowledge structures in the customer by defining the core needs and wants to be gratified by the brand (Keller, 1993).

In the current study, the researcher focused on key components of brand equity which are brand awareness, uniqueness of brand associations and perceived quality and their impact on online CBE. Within B2B, companies work with a few suppliers and brand awareness is critical for a company to be known and for it to be considered. Suppliers with similar solutions and capabilities could be differentiated by the uniqueness of brand associations and perceived quality. Loyalty was found to be a consequence of customer engagement (Bowden, 2009; Brodie et al., 2013; Hollebeek, 2011a). Loyalty is tested as a consequence of online CBE in this study. A higher order construct comprising brand awareness, uniqueness of brand associations and perceived quality is also tested as an antecedent of online customer brand equity in the current study. The next section discusses engagement concepts.

2.4 Engagement concepts

2.4.1 Customer engagement

Brodie (2013) infers that customer engagement is a tool for creating and cementing customer relationships. Customer engagement is seen as a predictor for future business because it can be used for creating and sustaining a competitive advantage (Brodie et al., 2013). Customer engagement lies in relationship marketing theory (Vivek et al., 2012; Brodie et al., 2013). Vivek et al. (2012) argue that customer engagement is central to the marketing concept.

2.4.2 Process of customer engagement

Bowden (2009) defines engagement as the process leading to loyalty by mapping relationships among constructs of calculative commitment, affective commitment,

involvement and trust from being new to a brand to becoming a repeat purchase, as shown in figure 4. Customer engagement can be studied in different contexts, such as different industries or in developed or emerging markets.

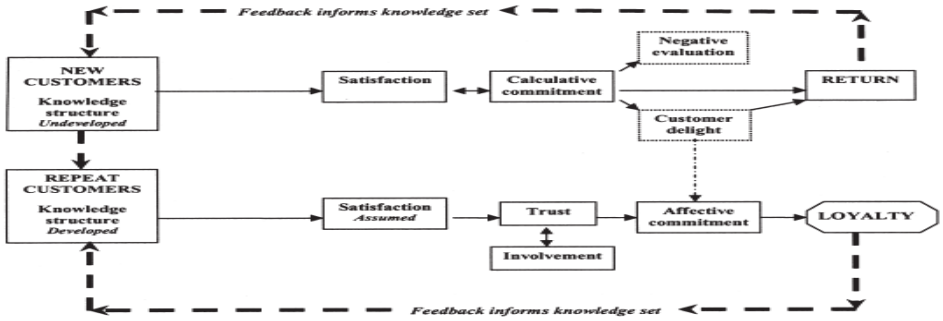


Figure 4: Conceptual framework of process of customer engagement (Howden 2009, p.66)

The following section discusses customer engagement after the purchase has been done.

2.4.3 Customer engagement after purchase

Vivek et al. (2012) came up with a conceptual framework of customer engagement where involvement and participation were antecedents of customer engagement and the consequences were value, trust, affective commitment, word of mouth, loyalty and brand community involvement, as shown in figure 5.

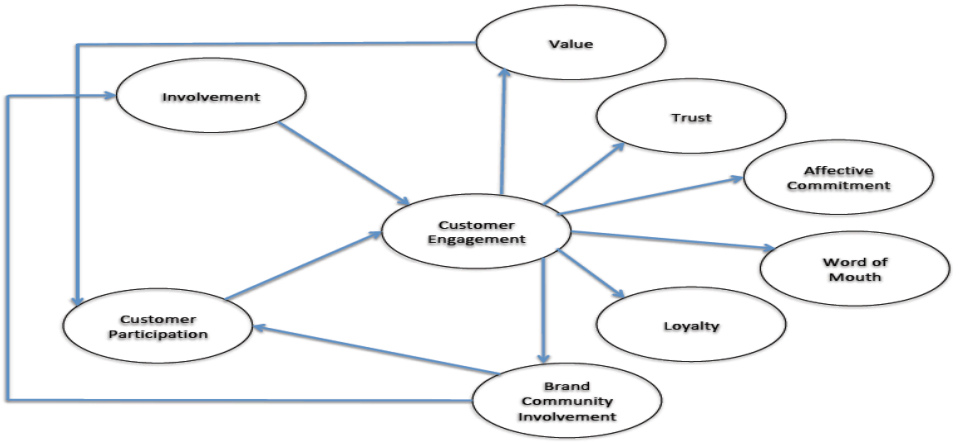


Figure 5: Theoretical model of customer engagement (Vivek et al., 2012, p.135)

Vivek e al. (2012) argue that participation can be both an antecedent and be part of customer engagement. If it is part of customer engagement, it could be equated to the behavioural aspect of customer engagement. In information systems, customer engagement is looked at from the perspective of customer participation with the company and other customers in producing knowledge (Vivek et al., 2012; Wagner & Majchrazk, 2007). The approach that Vivek et al. (2012) used was to combine existing literature of engagement at that time with a set of practitioner's views of engagement. Their findings show that customers engage with both high involvement and low involvement company offerings (Vivek et al., 2012). Customer participation is the level at which a customer is enmeshed in delivering, producing or delivering a service (Dabholkar, 1990; Vivek et al., 2012).

Vivek et al.'s (2012) conceptual framework emphasises the point that customer engagement occurs within and outside of the purchasing situation. The engagement process occurs between buyers, potential buyers, sellers, potential sellers and society at large. This means competitors and other products or services in the same category are important and this is similar to what Keller (1993) found with brand associations. Every player within a particular industry has an impact and influence on the customer engagement.

2.4.4 Customer engagement cycle

The antecedents of customer engagement could be outcomes and vice versa (Brodie et al., 2011). Sashi (2012) captured this cyclic nature of customer engagement with the customer engagement cycle, as shown in figure 6.

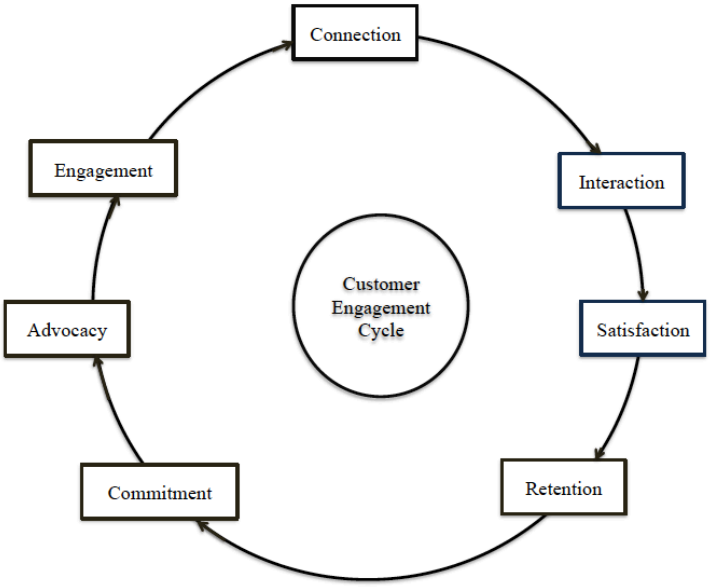


Figure 6: Customer engagement cycle
(Sashi 2012, p. 261)

This reflects the impact of the previous transactions on customer engagement (Bowden, 2009; Sashi, 2012). This customer engagement cycle would be applicable in a B2B environment because businesses normally repeat purchases. Customer engagement has a number of dimensions.

2.4.5 Customer engagement dimensionality

Researchers that support the uni-dimensionality of customer engagement will signify the importance of the behavioural dimensions and the other dimensions (emotional and cognitive) as supplementary but important (Kuvykaite & Tarute, 2015). Kuvykaite and Tarute (2015) conclude that customer engagement is multidimensional (behavioural, emotional, cognitive) and depends on the object of engagement. Hollebeek et al. (2014) define customer brand engagement (CBE) as a customer's positively valenced cognitive, emotional and behavioural activity during or related to focal customer/brand interactions. They developed a scale to measure CBE and explored CBE's theoretical relationships to customer brand involvement, self-brand connection and brand usage intent.

2.4.5.1 Cognitive dimension of customer engagement

A number of authors, such as Blumenfeld and Meece (1988), Guthrie and Cox (2001), emphasise the cognitive component of customer engagement. These studies considered student engagement with their studies (Blumenfeld & Meece, 1988; Guthrie & Cox, 2001). A cognitive approach to engagement within this context of students appears reasonable. This tends to support the notion that engagement is contextual. Academic tasks are defined by end results, students are required to produce and the cognitive process they go through to produce these results (Blumenfeld & Meece, 1988; Doyle, 1983).

2.4.5.2 Emotional dimension of customer engagement

In social sciences and business management literature, Cateeuw et al. (2007) and Brodie et al. (2011) advance the notion of the emotional dimension of engagement. Brodie et al. (2011) indicate that 40% of the engagement literature focuses on the uni-dimensionality of engagement. It is important to study the engagement in a uni-dimensional manner because it seems some contexts are better explored using this. Van Doorn et al. (2010) conceptualise the emotional dimension of engagement as one of the consequences of customer engagement behaviour.

2.4.5.3 Behavioural dimension of customer engagement

Van Doorn et al. (2010) explored the behavioural aspect of customer engagement by examining the customer behaviours that influence customers before, during and after purchase. Van Doorn et al. (2010) argue the underlying construct for any customer action is customer engagement. The Service-Dominant Logic theory emphasises participation of the customer during value co-creation (Van Doorn et al., 2010). Van Doorn et al. (2010) infer that the characteristic of the brand, both actual and perceived, has a major impact on the customer engagement levels. The brand equity will influence the intensity of behaviour of the customer in response to an interaction with the brand (Van Doorn et al., 2010).

Vivek et al. (2012) view participation as external to customer engagement. The dimensions of customer engagement could be ordered as antecedents or consequences of each other

under specific contexts. Hollebeek et al. (2014) empirically tested to check the behavioural dimension as a consequence of the cognitive and emotional dimensions of engagement. That model was not a better fit on the data they had, compared to when all the three dimensions were at the same level. The next section discusses customer brand engagement (CBE).

2.5 Customer brand engagement (CBE)

Hollebeek (2011a) came up with a conceptual framework of CBE with involvement as an antecedent and relationship quality (trust, commitment and customer satisfaction) as a consequence of CBE. Loyalty is conceptualised as a consequence of relationship quality (Hollebeek, 2011a). Hollebeek (2011a) was influenced by the work of Saks (2006) on employee engagement.

Hollebeek et al. (2014) argue that the concept of customer engagement and CBE may have the same conceptual scope. Hollebeek et al. (2014) build on the works of Brodie et al (2011) and Hollebeek (2011). Engagement is focused on the customer's cognitive, emotional and behavioural dynamics during brand interactions. Hollebeek et al. (2014) developed a 10-point scale to measure CBE. They use the scale to verify that involvement is an antecedent to CBE and that CBE leads to self-brand connection and brand usage intent (Hollebeek et al., 2014).

2.5.1 Online customer brand engagement (CBE)

Online CBE is identified as having cognitive, emotional and behavioural components (Brodie et al., 2011; Hollebeek, 2011a). Empirical studies confirmed this multidimensionality of online CBE (Hollebeek 2011a; Brodie et al., 2013). The manifestation of each of the dimensions of engagement varies across the engagement subject, engagement object and the context of engagement (Brodie et al., 2011). Thinking of a brand will reflect how involved a customer is with a brand at the cognitive level (Harrigan et al., 2018). The positive experience which a customer has in using a website will reflect the emotional component of online CBE (Gummerus et al., 2012; Harrigan et al., 2018). The importance which a customer places in using a website will indicate the behavioural component of online CBE (Harrigan et al., 2018; Pansari & Kumar, 2017).

Online CBE has been studied in the form of engagement with social media (Hollebeek et al., 2014), brand community engagement (Brodie et al., 2013) and company or brand website (Calder et al., 2009).

2.5.2 Online customer brand engagement (CBE) with social media

Hellobeek et al. (2014) developed a scale to test CBE. They did exploratory qualitative research on CBE before doing a quantitative test of the CBE scale developed. Ten people were used for the initial exploratory study. CBE was found to constitute a cognitive, emotional and behavioural component. To develop the scale, a series of studies were done. In their first study, managers and expert were used to screen items describing CBE. In their second study, 194 undergraduates were used to rate the items using Facebook.com. In their third study, the scale was used on 554 customers who use Twitter.com to check the dimensionality of the scale. The fourth and final study used LinkedIn.com with a sample of 556 customers to further examine the scales. The scale developed was found to be valid.

2.5.3 Online brand community engagement

Online brand community engagement occurs when a brand develops an online community relationship with its customers. This can be done on public sites, such as Facebook, or on the companies' own website. The aim of the online brand community is to enable engagement with the customers. Brodie et al. (2013) used netnography to study the online brand community. Netnography entails observing communication in the online brand community followed by in-depth qualitative interviews. Baldus et al. (2015) developed a 11-dimension scale to measure online brand community engagement. This measures the motivation of a person wanting to continuously interact with an online brand community. Instead of engaging with the community on the website a customer can engage directly with the brand website.

2.5.4 Online customer brand engagement (CBE) with a website

Calder et al. (2009) infer that engagement is an antecedent to outcomes such as usage, affect and responses to advertising and that customer engagement with a website is a collection of experience with the website, as shown in figure 7.

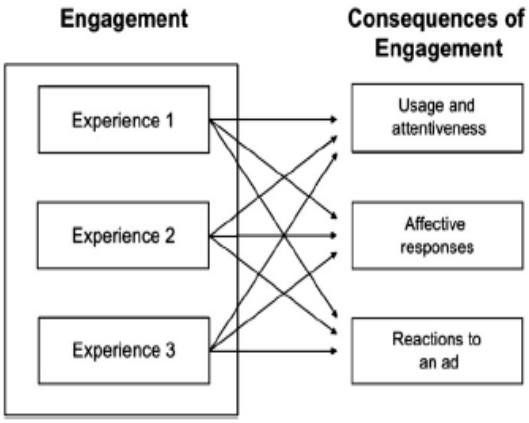


Figure 7: Engagement and its consequences
(Calder, Mathouse & Schaedel, 2009, p. 322)

Calder et al. (2009) define experience as how a site fits into a customer's life. Calder et al. (2009) argue that experience is a first order construct while engagement is a second order construct. The uses and gratification approach divide experience into information, personal identity, integration and social interaction and entertainment. A customer can be engaged at different stages in the purchasing process. The next section discusses previous studies which have analysed the antecedents and consequences of CBE.

2.6 Review of previous studies of antecedents and consequences of CBE

2.6.1 Review of previous studies of antecedents of CBE

Junaid et al. (2019) assert that the CBE concept is under-developed and needs more study. CBE has mostly been used in studies in the B2C context with authors exploring different antecedents of CBE. Alamoudi and Alharthi (2021) explore the effect of online brand experience on CE with brand love as a mediator in B2C in the Saudi airline industry. They conclude that positive correlations exist for online brand experience, brand love and customer engagement. Algharabat et al. (2020) investigate the antecedents of CBE in

business-to-consumer (B2C) using fans of mobile companies and conclude that involvement, consumer participation and self-expressive brands influence CBE. Touni et al. (2020), in a B2C study within a hotel brand community, confirm that customer brand experience and customer involvement has a significant effect on customer engagement (CE). Harrigan et al. (2018), in a B2C study on social media for travel decisions, gets similar results to Touni et al. (2020) where involvement has an effect on CBE.

2.6.2 Review of previous studies of consequences of CBE

Seyedghorban et al. (2016) call for the empirical study for issues relevant to the B2B branding within emerging markets. A number of consequences of CBE, mostly in B2C, have been investigated. Within a B2C study in the Saudi airline industry, CE affect repatronage intention (Almoudi & Alharti, 2021). Bolton (2011) recommends the study of the relationship of existing marketing constructs like CE and brand equity. The cognitive process and activation impact one component of CBBE brand loyalty within a B2C study using fans of mobile phone companies (Alghabarat et al., 2020). Cognitive process, affection and activation has no effect on brand awareness/associations or perceived quality. In a B2C of a hotel brand community, Touni et al. (2020) conclude that CE has a role in building brand relationship quality. The next section is a review of theories which were used to study engagement.

2.7 Theories review

2.7.1 Social exchange theory

Social exchange theory (Blau, 1964; Emerson, 1976) relies on mathematics and logic and infers that a relationship between two people is formulated through cost benefit analysis. Social exchange theory (SET) assumes that humans maximise gain, seek reward, calculate gain and cost before engaging. It assumes that everyone understands that gain varies from time to time and from person to person.

The social exchange theory (Blau, 1964) infers that customers will have positive thoughts about a brand when they receive perceived benefits from a brand (Hollebeek, 2011b). CBE is an interaction between the customer and a brand (Hollebeek, 2011b). Hollebeek (2011b)

uses a qualitative study to unravel CBE and it's associated key themes, using the social exchange theory. Hollebeek (2011b) affirms that CBE consists of a cognitive, emotional and behavioural components.

2.7.2 Relationship marketing theory

Relationship marketing theory (RMT) infers that delivering value to a customer strengthens the relationship with the customer. RMT recognises the need for long term relationships with customers in order to derive long term value from them. Morgan and Hunt (1994) propose a definition of relationship marketing which articulates the need for maintaining meaningful relationship exchanges. The commitment-trust theory states that trust and commitment enable successful relational exchanges (Morgan & Hunt, 1994). Morgan and Hunt (1994) argue that companies could attend to relationships and create a competitive advantage for themselves and their partners by providing better resources, opportunities and benefits compared to competitors, having superior values, providing relevant intelligence to partners and dealing honestly with partners.

Vivek et al. (2012) argue that customer engagement is part of relationship marketing. Relationship marketing is about enhancing the relationship with customers and attracting new customers (Vivek et al., 2012). Their research was qualitative and took a view from both B2B and B2C. Vivek et al. (2012) find that engaging customers involve developing relationships at different levels and the engagement object could be product, brand, service or a personal relationship.

2.7.3 Service-Dominant logic

The service-dominant logic (S-D logic) (Vargo & Lusch, 2004; Lusch & Vargo, 2014) assumes service and products become valuable when people use them. S-D logic assume all economic interactions are service-to-service interactions. The customer is part of the value creation and value is only created when the product or service is in use by the customer.

Leckie et al. (2016) study the antecedents and consequences of consumer brand engagement. Consumer brand engagement was theorised as having three components, namely, cognitive processing, affection and activation with brand loyalty as the consequence. The S-D logic assume consumers are co-creators and is used to understand the effects of involvement and participation on CBE. Benham et al. (2021) explore customer engagement in the product versus the service context using the S-D logic theory variables of customer learning and customer knowledge sharing as antecedents with CBE consequences of customer co-creation and relationship quality. Customer learning results in the acquisition of new knowledge and customer knowledge sharing refers to the information shared by customers with others and the organisation in using their product or service (Benham et al., 2021).

2.7.4 Consumer culture theory

The consumer culture theory (CCT) (Arnaud & Thompson, 2005) promotes the evaluation of customer behaviours as part of a web of actions. It discourages taking the actions of customers as a single event but consider it as part of what happened before and what will happen after the customer event. Any behaviour of the customer is part of a culture, and it has to be analysed within that culture.

Leckie et al. (2016) study the antecedents and consequences of consumer brand engagement. Consumer brand engagement was theorised as having three components, namely, cognitive processing, affection and activation, with brand loyalty as the consequence. The consumer culture theory is used to explain the consumer consumption cycle and the role of self-identity in consumption. The self-expressive variable is derived from the consumer culture theory.

2.7.5 Congruity theory

The congruity theory (Osgood & Tannebaum, 1955) states that if we like a person and that person approves of something with which we empathise, then there is congruity. If a person we like does not like something we value, then there is no balance. The congruity theory alludes to the fact that congruence influences our attitude towards something. In

essence, a person will have a good attitude towards an object if that object is consistent with what we approve of.

Islam et al. (2018) study consumer engagement in online brand communities using the congruity theory. The congruity theory advances the notion that consumers tend to have a positive attitude to items which they perceive to have similar beliefs to their current beliefs (Islam et al., 2018). Self-brand image congruity and value congruity are tested as antecedents to consumer engagement with brand loyalty as the consequence.

2.7.6 Regulatory focus theory

The regulatory focus theory (RFT) (Higgins, 2000) has to do with what people do when pursuing their goals. It explains how people align their actions to their values. RFT proposes that there are two ways to achieve a goal by either being promotion focused or prevention focused. The RFT explores the relationship between a person's beliefs and how they achieve their goals (Hollebeek et al., 2021).

To study CBE under restricted conditions, Hollebeek et al. (2021) uses the regulatory focus theory and the Maslow's hierarchy of needs. Hollebeek et al. (2021) study the moderating effect of customer regulatory focus on two essential service variables, namely, social distant service delivery and platform mediated service delivery on CBE. For self-actualisation of non-essential services, they study the moderating effect of customer regulatory focus on service closure and platform mediated service delivery on CBE.

2.7.7 Theoretical lens in this study

The S-D logic and the consumer culture theory, like relationship marketing, all emphasise the role of consumers in the process of value creation. Relationship marketing is used as the theoretical lens for my study. The online CBE is embedded in the relationship-marketing paradigm (Brodie et al., 2011; Hollebeek, 2011a). Customer engagement is a natural progression of relational concepts (Cambra-Fierro et al., 2016). Customers develop relationships through customer engagement and this leads to trust and commitment (Bowden, 2009; Gambetti et al., 2012; Vivek et al., 2014). Morgan and Hunt (1994) propose

a definition of relationship marketing which articulates the need for maintaining meaningful relationship exchanges.

Low relational customers are driven by satisfaction and high relational customers are driven by trust and commitment (Garbarino & Johnson, 1999). Customers can voluntarily establish relationship with companies. A number of factors can influence this, and these include family reference groups or social norms (Garbarino & Johnson 1999; Sheth & Parvatiyar, 1995b).

Brand love is a brand relationship marketing construct (Albert & Merunka, 2013). Participation and involvement are relational antecedents of CBE (Kumar & Nayak, 2019). The development of trust enhances brand equity (Amoako, 2019). Trust is a component of relationship quality. In the current study, brand equity is conceptualised as having brand awareness, uniqueness of brand associations and perceived quality and it is tested as an antecedent of CBE. The other component of brand equity is brand loyalty which relates to the consequences of CBE.

Purchase intention has been attributed to emanate from fruitful relationships (Badrinarayanan & Laverie, 2011). In B2B, relationship marketing can be used to increase the brand preference of resellers (Gupta, 2022). Relationship marketing theory can be used to explain relationships between brands and customers, leading to brand advocacy (Jillapalli & Wilcox, 2010).

2.8 Conceptual framework

Loueriro et al. (2017) call for additional research to understand better the antecedents and consequences of customer engagement. This research tests the antecedents and consequences of online CBE, which are relevant for the B2B environment. Selected antecedents of online CBE are brand equity, involvement, participation and brand love. Relationship quality is a consequence of online CBE, and this will lead to loyalty, brand preference, brand advocacy and purchase intentions. A conceptual framework is developed, as shown in figure 8, and it shows the relationship among the constructs.

Bowden (2009) asserts that the process of customer engagement differs between new and repeat customers. He identifies calculative commitment as being important for new customers, which could be equated to the cognitive construct in Hollebeek et al.'s (2014) conceptual model of CBE. Bowden's (2009) affective commitment could be equated to the affection in Hollebeek et al.'s (2014) CBE model. Vivek et al. (2012) theorise that there are feedback loops to the inputs of customer engagement.

Involvement and participation are antecedents to customer engagement (Vivek et al., 2012). Relationship quality comprises trust, customer satisfaction and commitment. These are all relational constructs. Hollebeek (2011a) posits that trust, customer satisfaction and commitment are consequences of customer engagement.

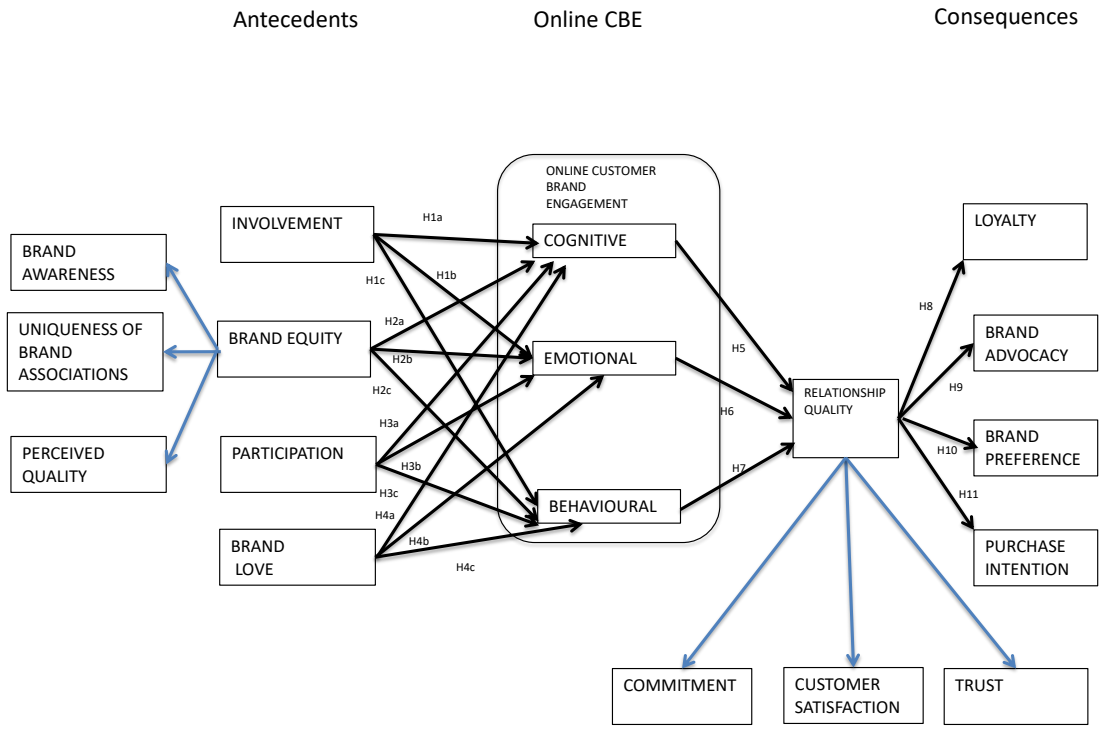


Figure 8: Conceptual framework: Antecedents and consequences of online customer brand engagement

(Aaker, 1991; Bowden, 2009; Hollebeek, 2011a; Hollebeek et al., 2014; Vivek et al., 2012)

In the conceptual framework in figure 8, brand equity is conceptualised as a higher order construct comprising brand awareness, uniqueness of brand associations and perceived

quality. Relationship quality is conceptualised as a higher order construct comprising trust, customer satisfaction and commitment. A multidimensional approach to online CBE is used and it is said to have the following components - cognitive, emotional and behavioural.

2.9 Hypothesis development of antecedents and consequences of online CBE

2.9.1 Involvement and online CBE

Mittal (1985) infers that researchers have different views of the involvement construct, but all agree on the significance of the stimulus resulting in the involvement. Greenwald and Leavit (1984) differentiate between low involvement and high involvement. High involvement reflects more importance to the issue at hand and low involvement indicates less importance of the issue at hand (Greenwald & Leavit, 1984). Involvement with a brand lead to commitment to the brand (Bowden, 2009; Gordon et al., 1998; Swinyard, 1993). Involvement with a brand lead to a customer wanting to repurchase the brand (Bowden, 2009; Oliva, Oliver & Bearden, 1995). A customer's involvement with a brand will affect their level of online CBE (Harrigan et al., 2018).

Online CBE is defined as having cognitive, emotional and behavioural components (Brodie et al., 2011; Hollebeek, 2011a). Empirical studies confirmed this dimensionality of CBE (Brodie et al., 2013; Hollebeek, 2011a). The manifestation of each of the dimensions of engagement varies across the engagement subject, engagement object and the context of engagement (Brodie et al., 2011). Thinking of a brand will reflect how involved a customer is with a brand at the cognitive level (Harrigan et al., 2018). The positive experience which a customer has in using a website will reflect the emotional component of online CBE (Gummerus et al., 2012; Harrigan et al., 2018). The importance which a customer places in using a website will indicate the behavioural component of online CBE (Harrigan et al., 2018; Pansari & Kumar 2017). I propose that involvement would have an effect on online CBE.

Hypothesis 1a:

H_{1a0}: Involvement has no effect on the cognitive component of online CBE.

H_{1aA}: Involvement has an effect on the cognitive component of online CBE.

Hypothesis 1b:

H_{1b0}: Involvement has no effect on the emotional component of online CBE.

H_{1bA}: Involvement has an effect on the emotional component of online CBE.

Hypothesis 1c:

H_{1c0}: Involvement has no effect on the behavioural component of online CBE.

H_{1cA}: Involvement has an effect on the behavioural component of online CBE.

2.9.2 Brand equity and online CBE

According to Aaker (1991), brand equity comprises loyalty, brand awareness, brand associations, perceived quality and other brand associations. Aaker (1991) indicates that brand equity provides value to the customer by increasing the processing ability of information, confidence in decision-making and satisfaction. In the B2B environment, confidence in the purchase decision is important because the monetary values involved are high and wrong decisions will be difficult to rectify. Hawkins and Mothersbaugh (2013) indicate that memory affects the decision-making process in B2B. Brand awareness involves brand recall and brand recognition (Keller, 1993). I posit that brand awareness, which is a component of brand equity, would have an impact on online CBE in the B2B environment.

Brand associations include attributes, benefits and attitudes (Keller, 1993). In the B2B environment, the decision makers use a consideration set to determine the suppliers to use for a solution. With reference to Hawkins and Mothersbaugh (2013), the B2B decision process moves from problem recognition to information search and then to alternative evaluation and selection. The consideration set will be important during the information search. The consideration set will specify the attributes, benefits and attitude of a product or service, for which the business is looking. It is critical that a potential supplier be included in the consideration set. Within B2B, once a company is included in the consideration, it normally means it has passed the first hurdle of selection. With reference to Keller (1993), the uniqueness of the brand associations will provide a competitive position for the suppliers. In my research, I focus on the uniqueness of these associations.

I advance that the uniqueness of brand associations would have an impact on the online brand engagement in the B2B context.

Perceived quality is defined as the customer's overall perception of the quality of a product or service and it is linked to the purchase decision (Aaker, 1991; Hawkins & Mothersbaugh, 2013). According to Keller (1991), the perceived quality can be used to differentiate products or services. Perceived quality is important in the B2B environment because it will provide an advantage of the products or service when a comparison is done with a product or service which is considered to be of inferior quality (Yoo et al., 2000; Zeithaml, 1988). Perceived quality affects customer loyalty (Dwivedi, 2015). I propose that perceived quality will have an effect on online CBE within the B2B context.

Brand equity is conceptualised as a higher order reflective-reflective construct comprising brand awareness, uniqueness of brand associations and perceived quality. I posit that brand equity has an impact on the online CBE which consists of cognitive, emotional and behavioural components of online CBE.

Hypothesis 2a:
H_{2a0}: Brand equity has no effect on the cognitive component of online CBE.
H_{2aA}: Brand equity has an effect on the cognitive component of online CBE.

Hypothesis 2b:
H_{2b0}: Brand equity has no effect on the emotional component of online CBE.
H_{2bA}: Brand equity has an effect on the emotional component of online CBE.

Hypothesis 2c:
H_{2c0}: Brand equity has no effect on the behavioural component of online CBE.
H_{2cA}: Brand equity has an effect on the behavioural component of online CBE.

2.9.3 Participation and online CBE

Involvement and participation are mutually exclusive constructs (Brodie et al., 2011; Vivek et al., 2012). Involvement reflects the level of interest and participation indicates the level

the customer partakes in delivering the product or service (Dhabolkar, 1990: Vivek et al., 2012). Eisingerich, Auh and Merlo (2014) argue that customer participation leads to customer satisfaction. Brodie et al. (2011) conceptualise that participation and involvement are antecedents of customer engagement. Carlson et al. (2019) study the impact of participation on relational value which could be considered behavioural in social media brand communities and their results infer that participation has an impact on relational value. I suggest that participation would be an antecedent of online CBE within a B2B context.

Hypothesis 3a:
H_{3a0}: Participation has no effect on the cognitive component of online CBE.
H_{3aA}: Participation has an effect on the cognitive component of online CBE.

Hypothesis 3b:
H_{3b0}: Participation has no effect on the emotional component of online CBE.
H_{3bA}: Participation has an effect on the emotional component of online CBE

Hypothesis 3c:
H_{3c0}: Participation has no effect on the behavioural component of online CBE.
H_{3cA}: Participation has an effect on the behavioural component of online CBE.

2.9.4 Brand love and online CBE

Brand love is a fondness that a well satisfied customer has with a particular company or symbols of the company (Carrol & Ahuvia, 2006). The concept of love affects brand relationship (Carrol & Ahuvia, 2006; Fournier, 1998). Emotional ties to brands will make customers respond more positively to them (Long-Tolbert & Gammoh, 2012). Research shows that brand love is associated with word of mouth and brand loyalty (Batra, et al., 2012; Carrol & Ahuvia, 2006; Fournier, 1998). Junaid et al. (2019) suggest that brand love is at the centre of brand relationships with customers. I propose brand love would have a positive impact on online CBE within a B2B context.

Hypothesis 4a:

H_{4a0}: Brand love has no effect on the cognitive component of online CBE.

H_{4aA}: Brand love has an effect on the cognitive component of online CBE.

Hypothesis 4b:

H_{4b0}: Brand love has no effect on the emotional component of online CBE.

H_{4bA}: Brand love has an effect on the emotional component of online CBE.

Hypothesis 4c:

H_{4c0}: Brand love has no effect on the behavioural component of online CBE.

H_{4cA}: Brand love has an effect on the behavioural component of online CBE.

2.9.5 Online CBE and relationship quality

Trust is a recognised concept in relationship marketing (Dwyer et al., 1987; Ulaga & Eggert, 2006). According to the commitment-trust theory of relationship marketing, trust is one of the main variables for relationships (Morgan & Hunt, 1994; Ulaga & Eggert, 2006). In B2B relationships, customers will select suppliers who are reliable and those who seem to work in their best interest (Ulaga & Eggert, 2006). In the online environment, trust is at the heart of all relationships because transacting online involves social uncertainty and risk (Gefen et al., 2003). Trust comes with expectations. The person who trusts will expect the trusted party not to behave opportunistically (Gefen et al., 2003). Bowden (2009) argues that the process of customer engagement included trust as antecedent to loyalty for repeat purchase customers. I propose that online CBE would have an effect on trust.

Satisfaction is best explained by the expectation confirmation theory (Oliver 1977; Oliver 1980; Parasuraman et al., 1988; Ulaga & Eggert, 2006). The customer compares what he or she gets with the expectation, which he or she had at the beginning. If what he or she gets is lower than the expectation, then the customer is not satisfied and if what he or she gets is better than the original expectation, then he or she is satisfied. Research shows that satisfaction is correlated to loyalty. Bowden (2009) looks at the process of engagement and the role of satisfaction. Satisfaction is not seen as a driver of loyalty, but it is used for initiating the process which leads to loyalty and using knowledge structures of a brand, developed by the customers (Bowden, 2009). In the conceptual framework, online CBE is

positioned as antecedents to customer satisfaction. There is a need to understand better the effect of the cognitive, emotional and behavioural online CBE to customer satisfaction. This study proposes that online CBE would have a positive effect on customer satisfaction.

Commitment is another key variable in relationship marketing (Morgan & Hunt, 1994; Ulaga & Eggert, 2006). Commitment involves a desire to keep a relationship and it deters switching behaviour (Ulaga & Eggert, 2006). Bowden (2009) differentiates the process of customer engagement for new customers and old customers. Bowden (2009) defines calculative commitment, which is similar to the cognitive of online CBE, which results in negative evaluation or customer delight. Bowden (2009) defines affective commitment, which is similar to the emotional commitment of online CBE. In the conceptual framework, commitment and the cognitive, emotional and behavioural online CBE are treated as standalone constructs. The current study, therefore, proposes that online CBE would have an effect on commitment.

Relationship quality comprises trust, commitment and customer satisfaction (Dorsch et al., 1998; Hollebeek, 2011a; Ulaga & Eggert, 2006). Other writers, like Crosby et al. (1990), infer that relationship quality comprises trust and satisfaction. There is a direct association between employee engagement and job satisfaction (Hollebeek, 2011a; Saks, 2006). This association could be extended to online CBE and relationship quality. Hollebeek (2011a) conceptualises that relationship quality is a consequence of CBE. Bowden (2009) examines the role of trust, commitment and satisfaction in customer engagement. Hewett et al. (2002) infer a probable relationship between relationship quality and customer's intention to repurchase. The relationship quality could act as antecedents of future online CBE (Brodie et al., 2011; Sashi, 2012). I submit that online CBE would have an impact on relationship quality.

Hypothesis 5:
H_{50}: Cognitive component of online CBE has no effect relationship quality.
H_{5A}: Cognitive component of online CBE has an effect on relationship quality.

Hypothesis 6:
H_{60}: Emotional component of online CBE has no effect on relationship quality.

H_{6A}: Emotional component of online CBE has an effect on relationship quality.

Hypothesis 7:

H_{70}: Behavioural component of online CBE has no effect on relationship quality.

H_{7A}: Behavioural component of online CBE has an effect on relationship quality.

2.9.6 Relationship quality and loyalty

Loyalty is a willingness to consistently buy preferred good or services (Liu et al., 2011; Oliver, 1999). There is controversy on the association of relationship quality and loyalty (Hollebeek, 2011a), though other writers support this association (Hennig-Thurau & Klee, 1997; Hollebeek, 2011a;). Online CBE is considered a better forecaster of customer loyalty compared to other relational constructs (Brodie et al., 2011). The online CBE is mediated by relationship quality. Trust and customer satisfactions result in customer loyalty (Thakur, 2018). The relationship quality could act as antecedents of future online CBE (Brodie et al., 2011). The study suggests that relationship quality would have an effect on loyalty.

Hypothesis 8a:

H_{80}: Relationship quality has no effect on loyalty.

H_{8A}: Relationship quality has an effect on loyalty.

2.9.7 Relationship quality and brand advocacy

Brand advocacy can be manifested in three ways. It can be shown by willingness to try new products under the same brand (Battcharya & Sen, 2003; Bilro et al., 2019). A customer could provide a favourable word of mouth (Aaker, 1996; Bilro et al., 2019; Zeithmal et al., 1996). The customer is not affected by negative word of mouth about the brand (Bilro et al., 2019; Klein & Dawar, 2004; Peloza, 2006). The customer engagement cycle infers that brand advocacy is an antecedent of customer engagement (Sashi, 2012). This tends to support Brodie et al.'s (2011) conceptualisation that some antecedents of customer engagement can be consequences and vice versa. This depends on the context of engagement and in this case, brand advocacy will be a consequence of online CBE within the B2B context. Sashi's (2012) engagement cycle shows commitment and satisfaction feeding into brand advocacy. The relationship quality of trust, satisfaction and

commitment will moderate the relationship between online CBE and brand advocacy. This study further proposes that relationship quality would have an effect on brand advocacy.

Hypothesis 9:

H_{9a0}: Relationship quality has no effect on brand advocacy.

H_{10aA}: Relationship quality has an effect on brand advocacy.

2.9.8 Relationship quality and brand preference

Brand preference and brand loyalty are independent constructs. In markets that are competitive and there is less brand loyalty, promoting brand preference could be an effective strategy (Alamro & Rowley, 2011). Brand preference is when a customer favours one brand over another (Alamro & Rowley 2011; Erkmen & Hancer, 2019; Hellier et al., 2003). Alamro and Rowley (2011) did empirical studies to show that brand awareness, brand image and customer attributes are antecedents of brand preference. Within B2B, companies will normally work with more than one supplier for a particular solution, making brand preference an important concept. This study proposes that relationship quality comprising trust, customer satisfaction and commitment would have a positive effect on brand preference.

Hypothesis 10:

H_{100}: Relationship quality has no effect on brand preference.

H_{10A}: Relationship quality has an effect on brand preference.

2.9.9 Relationship quality and purchase intention

Customers receive information, which they process to form beliefs, and those beliefs leads them to act (Harrigan et al., 2018). Harrigan et al. (2018) argue that social exchange theory infers that engaged customers with a brand will lead them to interact more with that brand. The customers will interact with the brand because they will be expecting to receive a positive benefit. Cognitive, emotional and behavioural engagement with a brand will make the customer have belief in the brand, resulting in a desire to interact more with the brand (Harrigan et al., 2018; Hollebeek, 2011a). When studying customer engagement, loyalty and purchase intentions need to be looked at separately. Hollebeek (2011a) conceptualise that low customer engagement will result in low purchase intentions even for loyal

customers. Bowden (2009) argues that customer engagement leads to purchase intentions. In B2B trust, satisfaction and commitment are important constructs which determine the relationship of a customer with a company or brand. Purchase intention originates alongside anticipation of an imminent transaction and as such, they are often seen as an essential indicator that a purchase will, in fact, be made (Chang & Widlt, 1994). Martins, Costa, Oliveira, Gonçalves and Branco (2019) observe that past research for purchase intention shows that a rise in purchase intention indicates an increase in chances of purchase. This study postulates that relationship quality comprising trust and customer satisfaction will have an effect on purchase intention.

Hypothesis 11:
H_{110}: Relationship quality has no effect on purchase intention.
H_{13aA}: Relationship quality has an effect on purchase intention.

2.9.10 Mediation analysis

A mediation analysis is done to check the mediating effect of RQ between the online CBE constructs and their consequences. The hypothesis results of the specific indirect effect, total effect and direct effect of the online CBE on its consequences are analysed to determine the mediating effect of RQ between online CBE constructs and their consequences. The specific direct effect of RQ is when the effect is measured when RQ is mediating the online CBE constructs and their consequences. The total effect is a relationship between any two constructs including any effects through a mediator or mediators (Hair et al., 2017). The direct effect is the relationship between two constructs while controlling for the mediator (Hair et al., 2017).

2.10 Conclusion

This chapter provides the context of the study. It explores key concepts related to this study which are brand concepts, engagement, CBE, review of previous studies which tackled the antecedents and consequences of online CBE and theories which have been used to study CBE. Relationship marketing is selected as the theory to inform the study.

The conceptual framework and the associated hypotheses are developed in this chapter. The next chapter discusses the methodology used in the research.

CHAPTER 3: RESEARCH APPROACH, PROCEDURES AND METHOD

3.1 Introduction

This chapter discusses the research paradigm, research strategy, research design, population, sample, research instrument and procedures for data collection. It also reviews data analysis and interpretation methods and discusses limitation of the study and ethical standards observed in the course of fieldwork.

3.2 Paradigm

Saunders et al. (2009) classify four research philosophies which are positivism, realism, interpretivism and pragmatism. These different philosophies have a different ontology, epistemology and axiology. The ontology is the nature of reality, epistemology is what constitutes acceptable knowledge and axiology describes the nature of values (Saunders et al., 2009).

The ontological assumptions of realism are that reality is objective. The epistemological view is that observable occurrences provide credible data and facts. The axiological assumptions are that the researcher is influenced by his or her world view. The data collection methods can follow quantitative or qualitative research approaches, depending on the phenomenon being investigated.

Interpretivism postulates that reality is socially constructed and therefore subjective. Its axiological assumptions are that the research is value bound. Qualitative data techniques, such as interviews, participant observations and focus groups to mention but are not used.

The ontological assumptions of pragmatism are that reality is external and multiple. The epistemological assumptions are that knowledge is both observable and subjective. The axiological view is that values play an important role. Questionnaires and interviews are normally used for data collection under the pragmatic research approach.

The positivism ontological assumptions are that reality is objective. The epistemological assumptions are that only observable knowledge is acceptable. The axiological assumptions are that the research is value free. The research method normally used is quantitative with large samples. Qualitative research methods can also be used, depending on the research question. The current study employed positivism because this was best suited for the research. The quantitative research approach was versatile in testing the relationship between the different constructs.

3.3 Research strategy

There are two main research strategies under which research could be classified and these are quantitative and qualitative. Mixed methods occurs when these two research strategies are combined. The research strategy influences the sampling method, research instrument to be used and the data collection methods to be employed. The choice of research strategy depends on the type of research question and the objectives of the research. This study employed quantitative methods as its research strategy. It employed online quantitative data collection techniques through the online self-administered questionnaire.

3.4 Research design

Burns and Bush (2003) identify three traditional categories of research design which are exploratory, descriptive and causal. Exploratory is used to provide clarity and establish areas to do further research. Descriptive is used for describing phenomena. Causal is used to determine causality between variables under investigation. This research adopted the descriptive research design. An online self-administered survey questionnaire was deployed. The research was cross-sectional as it used the quantitative methodology. Everyone in the decision-making unit within the B2B market in the information and communication technology industry was a unit of study.

3.5 Population of study

The population of the study are decision-makers in the information and communication technology (ICT) industry in B2B involved in the purchasing process for their companies

in South Africa and Kenya. All decision-makers who may contribute directly or indirectly to the decision were considered in this study. The end users and all other company employees are an important part of the decision-making unit though they do not necessarily sit in formal meeting as their inputs and feedback is considered for purchases. The job functions considered to be part of the decision-making unit in this study included: engineer, accountant, sales, procurement, commercial, specialist, manager, head of department and executive.

The Independent Communications Authority of South Africa (ICASA) registration list, South African stock exchange database and the South African Internet Service Providers Association (ISPA) database were used to get details of the companies in the ICT industry in South Africa. The ICT industry B2B panel members in South Africa and Kenya from Borderless Access were also used in this study.

3.6 Sampling strategy

Purposive sampling was used to identify the respondents in South Africa and Kenya in information and communication technology (ICT) and B2B. There are a limited number of ICT companies in B2B in South Africa and Kenya. The first sample drawn from South Africa was for pilot Study 1. The second sample obtained through direct contact with the respondents in South Africa was for pilot Study 2. The third sample drawn from Borderless Access panel members in South Africa was for Study 3. The fourth and last sample obtained from Borderless Access panel members in Kenya was for pilot Study 4.

The sample size affects the quality of the results obtained. In B2B research, it is difficult to access respondents as most companies do not allow employees to discuss with outsiders any information about their business as it is considered intellectual property. There is debate on the optimum sample size for respondents for structural equation modeling. Roscoe (1975) suggests a minimum sample size of 30 and a maximum sample size of 500. Barret (2007) suggest that the sample size should be at least 200. Iacobucci (2010) did tests which showed that a sample size of at least 50 would produce acceptable results. In one of the studies on CBE, Hollebeek et al. (2014) used a sample size of 194 and obtained significant results.

3.7 Research instrument

The current study employed an online self-administered questionnaire as its sole research instrument. The online self-administered survey has advantages in that it is cheap and easy to administer. The online self-administered survey was created on Qualtrics. The research instrument has a demographic section to assess the people who would be participating, the website they visited, and the last section contains survey questions. The demographic section of the B2B study was designed to provide information about the role the respondents play in the purchasing decision. Appendix A shows the research instrument used to collect data in South Africa and appendix B shows the research instrument used to collect data in Kenya.

3.8 Procedure for data collection

In the pilot study and second study in South Africa, companies were directly approached to allow their employees to respond to the survey. A letter was sent to the human resources departments of the identified companies requesting the companies to contribute people to undertake the study. An anonymous link of the survey was generated and provided to the companies. The companies then distributed this link to their staff. In cases where companies were not willing to share contact details of the staff, an anonymous link was used to invite respondents to the study. Would-be respondents invited to answer the surveys included the end users, engineers, accountants, sales, marketing, legal, commercial, procurement specialists, managers and executives.

In the third study in South Africa, a panel from Borderless Access was used. In the fourth and final study in Kenya, a Kenyan panel from Borderless Access was used. Not enough respondents were obtained in the second study in South Africa so Borderless Access was approached to assist in getting additional respondents. The respondents from Borderless Access in South Africa served as a sample for the third Study. Borderless Access referred the researcher to the Kenyan panel of respondents who served as a sample for the fourth study.

3.9 Data analysis method

Structural equation modeling (SEM) using SmartPLS 4 software was used to analyse the data. The measurement model was analysed first and then followed by the structural model. The measurement model involved analysis of the factor loadings with the Cronbach alpha and composite reliability used to measure the reliability of the measurement scale. To analyse the construct validity, the convergent validity, and discriminant validity are tested. The average variance extracted was used to check for the convergent validity of the constructs in this study. The Fornell-Larcker and the Heterotrait Monotrait (HTMT) ratio are used to measure the discriminant validity of the constructs in this study.

The structural model analysis includes measuring the variance inflation factor and R-Square. Hypothesis testing using the p-value and confidence intervals was used to test the relationship among the constructs. There is argument to report the confidence intervals for the hypothesis because at times, the confidence intervals show significant results where p-values are showing an insignificant result. Each study was analysed separately.

3.10 Goodness-of-fit measurements

SmartPLS 4 is a PLS-SEM statistical analysis method (Ringle et al., 2022). SmartPLS 4 offers the following fit measures - standardised root mean square residual (SRMR), exact fit criteria d-ULS and d_G, normed fit index (NFI) and Chi^2 (Ringle et al., 2022). In this study, a report on the goodness-of-fit measures was not done because there is no consensus regarding the appropriateness of the goodness-of-fit measures for PLS-SEM. Most research in marketing studies which use PLS-SEM do not report goodness-of-fit-measures. They rely on model evaluation measurements to determine the quality of their results.

PLS-SEM uses variance instead of covariances and as such, the covariance goodness-of-fit metrics are not easily adopted to the PLS-SEM context (Hair et al., 2017). Henseler and Sarstedt (2013) argue that even though global goodness-of-fit measures have been proposed for PLS-SEM, they are not completely suitable for recognising misspelled

models. In CB-SEM fit statistics are obtained by comparing the empirical and theoretical covariance matrix while in PLS-SEM the focus is on the difference observed or approximated values of dependent variables and those predicated by the model (Hair et al., 2012).

Hair et al. (2011) propose that PLS-SEM is appropriate when the goal is identifying key driver constructs, the structural model is complex, sample size is small, data are not normally distributed and there is a need to use latent variables in subsequent measurements. This research has some of these characteristics and that is why the researcher employed SmartPLS 4 to analyse data. In this research, the key drivers are identified, the structural model is complex, the sample sizes used were relatively small and latent variables were used in determining the higher order constructs.

Another advantage of SmartPLS 4 and PLS-SEM is that they are non-parametric, negating the need to test for normality (Hair et al., 2017). SmartPLS 4 uses non-parametric bootstrap procedures to determine if coefficients like outer weights, outer loadings, and path coefficients are significant (Hair et al., 2017). SmartPLS 4 is robust and able to handle non normal data quite well and therefore there was no need to report skewness or kurtosis when using SmartPLS 4 in this research. More and more research in social studies and marketing are reporting confidence intervals. Hair et al. (2017) recommend the reporting of confidence intervals as it provides additional information on the stability of coefficients.

For the PLS-SEM measurement model, the reliability, convergent validity and discriminant validity are important measures. The measures done in my research included the factor loadings, Cronbach Alpha, average variance extracted and composite reliability. The assessment of the structural model was done by reviewing the explained variance (R-square), effect size (f-square), predictive relevance (Q-square), variance inflation factor (VIF) and statistical significance of the structural path coefficients. All these measures were collected in the current research.

3.11 Interpretation of the data

The process of interpreting the results involved a few steps. An hypothesis for relationships between constructs was formulated. Each hypothesis was linked to a specific question in the study. The results of the hypothesis tests were used to answer the associated research question. Relevant literature was reviewed to check the results obtained for each hypothesised relationship. The researcher then synthesised his own views based on the hypothesis test and the results from the relevant literature. This enabled a probable conclusion to be made. The findings were then used to identify the knowledge gap which was being addressed. The theoretical and managerial implications were elucidated. Additional future studies were identified to enhance the findings.

3.12 Limitation of study

3.12.1 Methodological limitations

Denscombe (2010) identify a number of limitations for quantitative studies. One of them was that quality of data collected affects the results. Another was that in cases where there are many tools available to the researcher and the researcher has to desist from becoming too embroiled in the analysis method. Other limitations include the potential of neglecting broader issues about the research and that there could too much data available and the researcher's decisions in designing the research can potentially affect the research outputs. Another limitation was that the current research was predominantly quantitative in its approach and the use of one research approach could potentially affect the research and the research used a self-administered questionnaire which could potentially create a problem of common method bias.

Apart from that, there were also challenges in getting enough respondents in South Africa for the second study which necessitated the need to use a panel for Study 3. The data for Study 2 and Study 3 could not be added using simple arithmetic and they were analysed separately. An online survey was used and any questions which the respondents had would remain unanswered. There was no person explaining each and every question to the

respondents. The results obtained cannot be generalised as each emerging market is different and engagement is context dependent.

3.12.2 Structural equation modeling limitations

This research has many variables. The SEM was appropriate to use for the study as it is able to analyse a lot of variables together. However, there are too many statistics, which the structural equation modeling (SEM) produces (Iacobucci, 2010). The researcher had to choose the statistics to use. There are guidelines of interpreting the SEM statistics, but they are not cast in stone (Iacobucci, 2010). Interpretation of some of the statistics such as R-square is subjective (Iacobucci, 2010). A lot of parameters are estimated at the same time and the quality of the output is dependent on the data collected requiring additional tests to be done to verify the quality of the outputs (Werner & Schermelleh-Engel, 2009).

3.13 Ethical issues

This study concerns people so ethical clearance was sought from the Wits Human Research Ethics Committee. This research is in the B2B environment and approval was sought from the companies where the respondents work. Malhotra and Peterson (2001) recommend anonymity of the respondents, especially in the B2B environment. The researcher informed the respondents that their responses would be kept anonymous. The data collected was kept confidential and was used only for purposes of this research. The researcher used online questionnaires and explained the purpose of the research in the introduction to the questionnaire. At the end of the questionnaire, there was a clause informing the respondents to indicate consent to be part of the research by clicking the submit button. The questions on the questionnaire were limited to those which are necessary for the research. The ethics clearance certificate is attached as appendix Y.

3.14 Conclusion

This research contributes through the development of a model of online CBE within B2B in an emerging market. The identified antecedents and consequences of online CBE are tested empirically using SEM. Hypothesis testing is done to check the relationship among the constructs. Testing of brand equity (brand awareness, brand associations and perceived

quality) as antecedents of online CBE is carried out. Brand love was tested as an antecedent of online CBE. Empirical testing of relationship quality (trust, satisfaction and commitment) and constructs of loyalty, brand advocacy, brand preference and purchase intentions within B2B in an emerging market was done. The results were analysed and used to answer the research question. The next chapter presents the results of the pilot Study 1.

CHAPTER 4: PILOT STUDY 1

4.1 Introduction

A pilot study for the research was carried out to test the research instrument and the research process. Teijlingen and Hundley (2001) offered a number of reasons for carrying out a pilot study which include testing a research instrument and reviewing the research process. In the current study, the pilot study was carried out to confirm adequacy of the research instrument, appropriateness of collecting the data online using Qualtrics and suitability of the selected data processing and analysis using SmartPLS 4. The aim of the pilot study was to review whether the selected research process was capable of providing answers to the research topic and associated research questions.

4.2 Research method pilot study 1

A quantitative research strategy was used for the pilot study through an online questionnaire on Qualtrics. Companies in the information and communication industry in South Africa were approached requesting participation of their employees. Companies in B2B are reluctant to give contact details of their employees. Once the companies agreed that their employees could join, an anonymous link was submitted to them. The companies then distributed this anonymous link to their employees. A total of 37 respondents were involved in the pilot study. The data collected was analysed using SmartPLS 4 and hypothesis testing was done to assist in answering the research questions.

4.3 Design and procedure pilot study 1

A quantitative research design was adopted for the pilot project. An online questionnaire was loaded on Qualtrics. A number of companies in the information and communications technology sector were identified as candidate companies to respond to the pilot study. Potential companies to contribute to the pilot study were identified using the Independent Communications Authority of South Africa's (ICASA) database and the South African stock exchange list of technology companies.

Purposively sampling was used to approach a few companies for their employees to respond to the study. An anonymous link was generated on Qualtrics and distributed to each of the companies for onward distribution to their employees. Companies in B2B are not open to provide their customer contacts. All the companies sampled did not want the researcher to talk directly to their employees, so the researcher gave them the link to share with their employees.

4.4 Population pilot study 1

The population for the pilot study involved all decision-makers in the ICT industry in B2B in South Africa. There are a number of ICT companies in South Africa in B2B and they are found on the ICASA database, ISPA database and South Africa Stock Exchange.

4.5 Sampling strategy pilot study 1

Purposively sampling was used to approach a few decision makers in the ICT industry in B2B in South Africa to respond to the pilot study. The companies asked to provide employees to respond to the pilot Study 1 were selected from the ICASA database, ISPA database and the South Africa Stock Exchange. The companies that agreed to provide employees to respond to the pilot study were Dark Fibre Africa, Broadband Infraco, Cool Ideas, Metrofibre Networks, Ispace, Compatel and Level 7. A total of 37 fully completed surveys were obtained.

4.6 Demographics of respondents pilot study 1

The demographic characteristics of respondents to the pilot Study 1 are shown in Table 1. A total of 37 respondents who completed the pilot study questionnaire comprised 11 females and 27 males. The ages distribution is 11 people between 24-35 years, 11 people 36-45 years, 14 people 46-55 years and one person above 55years. The education profile is one respondent has not completed a high school certificate, five have high school certificates, 15 have diplomas, 13 have degrees and three have master's degrees.

The respondents by size of company are 10 people from a company with 6-20 people, seven people each from companies with 21-20 people, 51-200 people, 201-500 people and

six people from a company with 501 and more people. The job function of the respondents are six engineers, three accountants, six sales people, five procurement people, one commercial person, eight specialists, five managers, and three executives.

Table 1: Demographics of respondents pilot study 1

Item	Description	Characteristic	Study 1
1	GENDER	MALE	26
		FEMALE	11
2	AGE	Below 24 years	0
		24-35 years	11
		36-45 years	11
		46-55 years	14
		Above 55 years	1
3	EDUCATIONAL PROFILE	No high school certificate	1
		High school certificate	5
		Diploma	15
		Degree	13
		Masters	3
		PhD	0
4	COMPANY SIZE	5 and less employees	0
		6-20 employees	10
		21-50 employees	7
		51-200 employees	7
		201-500	7
		501 and above	6
5	JOB FUNCTION	Engineer	6
		Accountant	3
		Sales	6
		Marketing	0
		Procurement	5
		Commercial	1
		Legal	0
		Specialist	8
		Manager	5
		Head of department	0
		Executive	3
		Total	37

4.7 Data analysis pilot study 1

The data collected on Qualtrics was cleaned up and exported to SmartPLS 4. The disjoint two stage approach was used to analyse the higher order constructs of brand equity and relationship quality identified in the model. The disjoint two stages approach has two stages. In the first stage, the latent variables of the first order constructs were obtained and in the second stage, the first order constructs represented by their latent variables were then modelled as manifest variables of the second order construct (Van Riel et al., 2017).

The measurement model was evaluated first for the lower order constructs. The factor loadings were adequate for most of the constructs being between 0.79-0.99, except brand love and loyalty. Brand love had two indicator loadings less than 0.6 and loyalty had one indicator with a factor loading less than 0.6, as shown in appendix D.

The internal consistency reliability was measured using the Cronbach's alpha or composite reliability (Hair et al., 2017). In this study, existing scales were adapted and used. High Cronbach's alpha and high composite reliability all greater than 0.9 were obtained showing a high internal consistency reliability (Cronbach, 1951; Hair et al., 2017). Please refer to appendix F for the values of the Cronbach's alpha and composite reliability.

The construct validity in SmartPLS 4 was measured using the convergent validity and discriminant validity. Convergent validity is how a measure correlates with other measures of the construct (Hair et al., 2017). The average variance extracted (AVE) was used to measure convergent validity. The average variance extracted (AVE) is the average of the factorial loads squared (Hair et al., 2019). Convergent validity is achieved when all items in a model are statistically significant (Afthanorhan, 2013). The AVE obtained for this pilot data were greater than 0.5, as recommended by Ringle et al. (2018). Refer to appendix F for details of the AVE obtained for the pilot Study 1 stage 1.

Discriminant validity measures whether the measurement model has redundant items. It is a measure of the distinctiveness of constructs. It is achieved when the model is free of redundant items (Afthanorhan, 2013). Fornell-Larcker discriminant validity criterion is that the square root of the latent variable AVE should be higher than the correlation with any

other latent variable (Fornell & Lacker, 1981; Garson, 2016). All constructs in the measurement model of the pilot Study 1 stage 1 model met the Fornell-Larcker criterion. Appendix G has the Fornell-Larcker criterion table for the measurement model of the pilot Study 1 stage 1.

The heterotrait-monotrait (HTMT) ratio can be used to measure the discriminant validity of the model or similarity of latent variables. The HTMT ratio should be less than one in a well-fitting model (Garson, 2016). There was a potential problem between brand love and emotional HTMT for the pilot Study 1 stage 1. The HTMT ratio of brand love and emotional was 0.91. Some researchers have put a cut off of 0.9 (Gold et al., 2001; Henseler et al., 2015; Teo et al., 2008). The rest of the latent variables have an HTMT of less than 0.9 which means discriminant validity was established, based on the HTMT criterion. Please refer to appendix H.

The second stage of the two stage disjoint approach for higher order constructs analysis approach involves using the latent variables of the lower order constructs to be manifest variables of the high order construct. This new model evaluated the measurement and structural components. The measurement model showed that brand equity and relationship quality have factor loadings all above 0.8 which was adequate, as captured in Table 2. The Cronbach's alpha and composite reliability are greater than 0.8 for brand equity and relationship quality. Brand equity and relationship quality therefore have internal consistency reliability. The average variance extracted was greater than 0.7 for both brand equity and relationship quality indicating convergent validity.

Table 2: Factor loadings relationship quality and brand equity pilot study 1 stage 2

	Brand equity	Relationship quality
Brand awareness	0.86	
Commitment		0.87
Customer Satisfaction		0.80
Perceived Quality	0.87	
Trust		0.89
Uniqueness of brand associations	0.86	

The structural model of the pilot Study 1 stage 2 was evaluated by checking the model parameters. Collinearity among the constructs was measured to ensure that there was no bias on the regression results (Hair et al., 2019). The structural model did not have multicollinearity issues. All the variance inflation factor (VIF) values measured were less than 5 as recommended by Salmeron et al. (2016). The VIF for the pilot Study 1 stage 2 structural model is illustrated in Table 3.

The coefficient of determination is the model's predictive power and it represents the combined exogenous latent variables effect on the endogenous latent variable (Hair et al., 2017). In marketing studies, the value of 0.75, 0.50 and 0.25 is considered as being substantial, moderate or weak respectively (Hair et al., 2017; Hair et al., 2011; Henseler et al., 2009). As presented in table 3, all the coefficients of determination (adjusted R-Square) for the pilot Study 1 stage 2 were significant for all endogenous latent variables except the purchase intention which was 0.05 while the rest were greater than 0.4.

Table 3: Evaluation of model pilot study 1 stage 2

Item	Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Inner VIF	R-Square Adjusted	Q-Square
1	Behavioural	0.93	0.96	0.88	3.17	0.42	0.4
2	Brand Advocacy	0.91	0.94	0.84	4.25	0.74	0.6
3	Brand Love	0.93	0.95	0.71	3.99		
4	Brand Preference	0.96	0.97	0.89	4.25	0.47	0.5
5	Brand equity	0.84	0.90	0.75	2.22		
6	Cognitive	0.95	0.97	0.91	3.82	0.63	0.6
7	Emotional	0.99	0.99	0.97	4.25	0.82	0.8
8	Involvement	0.95	0.95	0.67	1.67		
9	Loyalty	0.89	0.92	0.64	4.25	0.56	0.3
10	Participation	0.91	0.94	0.80	2.05		
11	Purchase Intention	0.98	0.98	0.94	4.25	0.05	0.1
12	Relationship quality	0.82	0.89	0.73	1.83	0.41	0.3

The Fornell-Larcker criterion indicate that the structural model for the pilot Study 1 stage 2 has discriminant validity, as illustrated in table 4.

Table 4: Fornell-Larcker criterion pilot study 1 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention	Relationship quality
Behavioural	**0.94**											
Brand Advocacy	0.74	**0.92**										
Brand Love	0.66	0.64	**0.84**									
Brand Preference	0.72	0.66	0.53	**0.94**								
Brand equity	0.28	0.47	0.66	0.28	**0.86**							
Cognitive	0.80	0.64	0.80	0.57	0.58	**0.96**						
Emotional	0.78	0.63	0.91	0.62	0.53	0.82	**0.99**					
Involvement	0.38	0.52	0.60	0.32	0.53	0.51	0.62	**0.82**				
Loyalty	0.73	0.76	0.61	0.82	0.36	0.67	0.67	0.44	**0.80**			
Participation	0.55	0.44	0.63	0.57	0.16	0.59	0.58	0.26	0.51	**0.89**		
Purchase Intention	-0.21	-0.13	-0.30	-0.29	0.06	-0.11	-0.30	-0.22	-0.26	-0.38	**0.97**	
Relationship quality	0.56	0.79	0.65	0.50	0.61	0.55	0.67	0.70	0.62	0.30	-0.13	**0.86**

The HTMT ratio also indicates that the model has discriminant validity, as indicated in table 5. There is a potential problem between brand love and emotional as the HTMT ratio is greater than 0.9. The model has predictive relevance as the Q-Square for all the endogenous variables is greater than zero.

Table 5: HTMT Ratio for the pilot study 1 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention	Relationship quality
Behavioural												
Brand Advocacy	0.81											
Brand Love	0.69	0.70										
Brand Preference	0.76	0.71	0.55									
Brand equity	0.28	0.54	0.70	0.30								
Cognitive	0.85	0.68	0.82	0.59	0.61							
Emotional	0.81	0.66	0.91	0.63	0.55	0.85						
Involvement	0.36	0.52	0.62	0.32	0.58	0.52	0.61					
Loyalty	0.79	0.81	0.64	0.88	0.43	0.70	0.67	0.47				
Participation	0.59	0.49	0.67	0.61	0.19	0.63	0.61	0.29	0.55			
Purchase Intention	0.21	0.14	0.30	0.30	0.12	0.11	0.30	0.22	0.34	0.40		
Relationship quality	0.63	0.88	0.71	0.54	0.76	0.63	0.75	0.76	0.70	0.32	0.14	

4.8 Hypothesis testing results from the pilot study 1: Antecedents and consequences of online CBE

The main research questions are:

1. What are the antecedents of online CBE?

2. Does online CBE affect relationship quality?

3. How does relationship quality affect the consequences of online CBE?

4. Does relationship quality mediate online CBE and the consequences of online CBE?

These research questions guide the enquiry done in the pilot Study 1.

4.8.1 Antecedents of online CBE pilot study 1

Hypothesis 1a:
H_{1a0}: Involvement has no effect on the cognitive component of online CBE.
H_{1aA}: Involvement has an effect on the cognitive component of online CBE.

The results of the pilot Study 1 reveals that involvement has no impact on the cognitive component (β=0.05, T=0.33, p=0.74) of online CBE. Harrigan et al. (2018), as well as Algharabat, et al.'s (2020) empirical studies indicate that involvement is an antecedent of the cognitive component of CBE. This contrasts with the results of the pilot Study 1 which illustrates that involvement has no impact on the cognitive component of online CBE. Harrigan et al.'s (2018) empirical study shows that consumer involvement accounted for 28.5% of the variance in the cognitive component of CBE within the context of tourism brands on social media. Algharabat et al. (2020) found that if consumer involvement changes by one standard deviation, then the cognitive component of CBE within the context of Facebook social media changes by 0.23.

Hypothesis 1b:

H_{1b0}: Involvement has no effect on the emotional component of online CBE.
H_{1bA}: Involvement has an effect on the emotional component of online CBE.

The results of the pilot Study 1 illustrates that involvement has no impact on the emotional component (β=0.15, T=1.28, p=0.20) of online CBE. Harrigan et al. (2018), as well as Algharabat et al.'s (2020) empirical studies' results reveals that involvement is an antecedent of the emotional component of CBE. The focus of the pilot study was not to check the significance of the relationships but more to get a view if the research instrument was usable and whether the respondents were understanding it.

Hypothesis 1c:
H_{1c0}: Involvement has no effect on the behavioural component of online CBE.
H_{1cA}: Involvement has an effect on the behavioural component of online CBE.

The results of the pilot Study 1 establishes that involvement has no impact on the behavioural component (β=0.05, T=0.27, p=0.79) of online CBE. Harrigan et al.'s (2018) study indicates that involvement has an impact on the behavioural component of customer engagement. Algharabat et al. (2020) get a similar result to the pilot study results where involvement has no impact on the activation (behavioural component) of CBE. Engagement is context dependent and the difference in results between Harrigan et al. (2018) and Algharabat et al. (2020) could be because these studies were done in different countries, namely, the United States of America and Jordan respectively.

Hypothesis 2a:
H_{2a0}: Brand equity has no effect on the cognitive component of online CBE.
H_{2aA}: Brand equity has an effect on the cognitive component of online CBE.

In the pilot Study 1, brand equity is a higher order construct comprising brand awareness, uniqueness of brand associations and perceived quality. The results shows that brand equity has no impact on the cognitive component of online CBE (β=0.18, T=0.99, p=0.32). In the measurement model, it was shown that brand awareness, uniqueness of brand associations and perceived quality were loading well on the higher order construct,

brand equity. The higher order construct, brand equity, has internal consistency reliability, convergent validity and discriminant validity.

Hypothesis 2b:

H_{2b0}: Brand equity has no effect on the emotional component of online CBE.

H_{2bA}: Brand awareness has an effect on the emotional component of online CBE.

In the pilot Study 1 brand equity has no impact on the emotional component of online CBE ((β=-0.15, T=1.19, p=0.23). The dimensionality of online CBE was confirmed by empirical studies. The context of engagement matters on how each component manifests itself. The emotional component of online CBE is reflected by the experience which a customer gets when using a website (Gummerus et al., 2012; Harrigan et al., 2018). Very few studies have done empirical studies where brand equity is driving the emotional component of online CBE.

Hypothesis 2c:

H_{2c0}: Brand equity has no effect on the behavioural component of online CBE.

H_{2cA}: Brand equity has an effect on the behavioural component of online CBE.

The pilot Study 1 results unveils that brand equity has no impact on the behavioural component (β=-0.215, T=0.895, p=0.371) of online CBE. The behavioural component of online CBE in using a website is reflected by the importance which the customer places in using the website (Harrigan et al., 2018; Pansari & Kumar, 2017). Keller (1993) asserts that brand equity happens when the customer is aware of the brand and develops, in memory, distinctive, durable and positive brand associations. This would seem to infer that brand equity would encourage behaviours in support of the brand, suggesting that brand equity would have an impact on the behavioural component of online CBE.

Hypothesis 3a:

H_{3a0}: Participation has no effect on the cognitive component of online CBE.

H_{3aA}: Participation has an effect on the cognitive component of online CBE.

Customer participation is the extent to which a customer takes part in the development of a product or service, including the provision of useful criticism and valuable recommendations (Leckie et al., 2016). The pilot Study 1 results reveals that participation has no impact on the cognitive component of online CBE (β=0.23, T=1.32, p=0.19). Vivek et al. (2012) infer that participation is an antecedent of brand engagement. Vargo and Lusch (2004) argue that participation enhances customer engagement with a brand. Alghabarat et al. (2020) resolve that participation is an antecedent of the cognitive component of CBE. Though the result of this pilot Study 1 show that participation has no impact on the cognitive component of online CBE, some scholars, such as Algharabat et al. (2020), assert that participation would have an impact on the cognitive component of online CBE.

Hypothesis 3b:

H_{3b0}: Participation has no effect on the emotional component of online CBE.

H_{3bA}: Participation has an effect on the emotional component of online CBE.

Emotional engagement to a brand is defined as a customer's feeling towards a brand (Dessart, Veloutsou, & Morgan-Thomas, 2016; Hollebeek et al., 2014; Ma, Ou & Lee, 2022). Participation includes providing useful feedback to the brand. The pilot study results show that participation has no impact on the emotional component (β=-0.01, T=0.05, p=0.96) of online CBE. Alghabarat et al. (2020) determine that participation is an antecedent of the emotional aspect of CBE. Alghabarate et al.'s (2020) results seem to be appropriate as participation should leads to feelings towards a brand. Once a customer takes time to provide feedback to a brand, it will lead to feelings towards that brand. It is also possible that feelings towards a brand could lead to participation. This shows the possible cyclic nature of the engagement concept. Therefore, participation should have an impact on the emotional of online CBE though the pilot Study 1 results indicate otherwise.

Hypothesis 3c:

H_{3c0}: Participation has no effect on the behavioural component of online CBE.

H_{3cA}: Participation has an effect on the behavioural component of online CBE.

Behavioural engagement could be defined as labour, time and effort spend in distributing, acquiring knowledge about, defending and validating a brand (Dessart et al., 2016; Hollebeek et al., 2014; Ma et al., 2022). The pilot study results show that participation has no impact on the behavioural component (β=0.15, T=0.65, p=0.52) of online CBE. Alghabarat et al. (2020) establish that participation is an antecedent of the behavioural component of CBE. Some of the objectives of the pilot Study 1 are to test the research instrument and research process. Though hypothesis testing is part of testing the research instrument, the focus is not really on the results of those hypothesis tests in the pilot Study 1. The researcher's view is that participation should have an impact on the behavioural component of online CBE irrespective of the pilot Study 1 results obtained.

Hypothesis 4a:

H_{4a0}: Brand love has no effect on the cognitive component of online CBE.

H_{4aA}: Brand love has an effect on the cognitive component of online CBE.

Cognitive engagement is the customer's attention, immersion and mindfulness towards a brand and information related to the brand (Dessart et al., 2016; Hollebeek et al., 2014; Ma et al., 2022). Brand love has no impact on the cognitive component (β= 0.52, T=1.87, p=0.06) of online CBE. Not much research has studied the impact of brand love on the cognitive component of online CBE. The cognitive component of online CBE is reflected by thinking of a brand (Harrigan et al., 2018). The concept of love impacts brand relationships (Carrol & Ahuvia, 2006; Fournier, 1998). The context matters in how the cognitive component of online CBE will discern itself. Questions arise if brand love evokes a cognitive process even though the attitude component in Batra et al.'s (2012) definition of brand love includes a cognitive component. The results of the pilot Study 1 indicates brand love has no impact on the cognitive component of online CBE.

Hypothesis 4b:

H_{4b0}: Brand love has no effect on the emotional component of online CBE.

H_{4bA}: Brand love has an effect on the emotional component of online CBE.

Brand love is a different concept to online CBE. Junaid et al. (2019) assert that the relationship between brand love and engagement is not fully explored. Batra et al.'s (2012)

studies conclude that brand love is multidimensional, and it includes the following characteristics: passion driven behaviour, self-brand integration, positive emotional connection, anticipated separation distress, long term relationship, attitude valence and attitude strength. Brand love has an impact on the emotional component (β= 0.92, T=6.64, $p < 0.001$) of online CBE. The effect size is large. The bias corrected 95% confidence interval shows brand love has an impact on the emotional component of online CBE. Brand love is a fondness which a customer can develop towards a company or symbols of the company (Carrol & Ahuvia, 2006). The emotional component of online CBE is associated with the experience which a customer has in visiting a website (Gummerus et al., 2012; Harrigan et al., 2018).

Hypothesis 4c:

H_{4c0}: Brand love has no effect on the behavioural component of online CBE.

H_{4cA}: Brand love has an effect on the behavioural component of online CBE.

The results of the pilot Study 1 indicate that brand love has an impact on the behavioural component (β=0.68, T=2.32, p=0.02) of online CBE. The effect size is medium. The bias corrected 95% confidence interval implies that the hypothesis that brand love has an impact on the behavioural component of online CBE is supported. The behavioural component of online CBE is shown by the importance a customer places on a brand's website (Harrigan et al., 2018; Pansari & Kumar, 2017). For love to be shown, it has to be expressed, supporting the result that brand love has an impact on the behavioural component of online CBE.

Table 6: Antecedents of CBE pilot study 1

	Hypothesis	β	T Statistic	P Values	Supported	Effect size	Size	Confidence interval (95%)		Supported
1	Brand Love -> Behavioural	0.68	2.32	0.02	Yes	0.22	Medium	0.14	1.27	Yes
2	Brand Love -> Cognitive	0.52	1.87	0.06	No	0.21	Medium	-0.02	1.00	No
3	Brand Love -> Emotional	0.92	6.64	0.00	Yes	1.31	Large	0.69	1.24	Yes
4	Brand equity -> Behavioural	-0.22	0.90	0.37	No	0.04	Small	-0.71	0.23	No
5	Brand equity -> Cognitive	0.18	0.99	0.32	No	0.04	Small	-0.13	0.56	No
6	Brand equity -> Emotional	-0.15	1.19	0.23	No	0.06	Small	-0.45	0.04	No
7	Involvement -> Behavioural	0.05	0.27	0.79	No	0.00	Small	-0.39	0.35	No
8	Involvement -> Cognitive	0.05	0.33	0.74	No	0.00	Small	-0.25	0.29	No

9	Involvement -> Emotional	0.15	1.28	0.20	No	0.08	Small	-0.10	0.35	No
10	Participation -> Behavioural	0.15	0.65	0.52	No	0.02	Small	-0.30	0.56	No
11	Participation -> Cognitive	0.23	1.32	0.19	No	0.08	Small	-0.16	0.51	No
12	Participation -> Emotional	-0.01	0.05	0.96	No	0.00	Small	-0.20	0.16	No

The results for the antecedent of online CBE are presented in table 6. The pilot Study 1 shows that involvement has no impact on the cognitive, emotional and behavioural components of online CBE. Harrigan et al. (2018) indicate a different result which shows that involvement is an antecedent of the cognitive, emotional and behavioural components of CBE (Harrigan et al., 2018). Algharabat et al.'s (2020) empirical study indicates that involvement is an antecedent of the cognitive and emotional components of CBE but that it is not an antecedent of the behavioural component of CBE.

The pilot Study 1 results resolve that brand equity has no impact on the behavioural, cognitive and emotional components of online CBE. Cambra-Fierro et al.'s (2021) study resolves that customer-based brand equity has an indirect impact on customer engagement, mediated by customer satisfaction and corporate reputation. In that study, brand awareness, brand image or associations, perceived service quality and brand loyalty are used as lower order constructs of the variable customer-based brand equity. In the pilot Study 1, brand equity is a higher order construct of brand awareness, uniqueness of brand associations and perceived quality.

Some studies suggest that participation is an antecedent of CBE (Brodie et al., 2011). The pilot Study 1 establishes that participation has no impact on the cognitive, emotional, and behavioural components of online CBE. The results of the pilot Study 1 are similar to Carvalho and Fernandes' (2018) findings. Carvalho and Fernandes' (2018) empirical study shows that participation has no impact on CBE in social media. They do not break down CBE into its constituencies. In contrast, Algharabat et al. (2020) establish that participation is an antecedent of the cognitive, emotional and behavioural components of CBE.

The pilot Study 1 indicates that brand love has no impact on the cognitive component of online CBE. The pilot Study 1 illustrates that brand love has an impact on the emotional and behavioural components of online CBE. Junaid et al. (2019) demonstrate that brand love is an antecedent of customer engagement. Alamoudi and Alharthi's (2021) empirical study shows that brand love has an impact on customer engagement within the airline

industry. Islam and Rahman's (2016a) empirical study denotes that brand love has an impact on customer engagement within the fashion apparels brands.

4.8.2 Online CBE and relationship quality pilot study 1

Hypothesis 5:

H_{50}: Cognitive component of online CBE has no effect relationship quality.

H_{5A}: Cognitive component of online CBE has an effect on relationship quality.

In this research, relationship quality is conceptualised as a higher order construct of trust, commitment and customer satisfaction. Trust is the capacity to depend on an exchange partner in which one has faith (Moorman et al.,1992). Relationship commitment is when a partner believe that a relationship is essential in order to justify the highest energy in keeping it (Morgan & Hunt, 1994). In B2B, relationship satisfaction is defined as a positive emotional situation brought on by the company's assessment of each and every element of its business arrangement with another company (Anderson & Narus 1990; Caceres & Paparoidamis, 2007; Dwyer et al., 1987; Ganesan, 1994). The results of the pilot Study 1 comes out with the cognitive component of online CBE as having no impact on relationship quality (β=-0.05, T=0.17, p=0.86). The cognitive component of online CBE is reflected in the customer thinking about the brand (Harrigan et al., 2018). The researcher's view is that the cognitive component of online CBE must have an impact on relationship quality as both are working in the mind of the customer, even though the cognitive component on online CBE has no impact on relationship quality in pilot Study 1.

Hypothesis 6:

H_{60}: Emotional component of online CBE has no effect on relationship quality.

H_{6A}: Emotional component of online CBE has an effect on relationship quality.

The emotional component of online CBE (β=0.63, T=2.28, p=0.02) has an impact on relationship quality in pilot Study 1. The effect size of the emotional component of online

CBE on relationship quality is medium. The bias corrected 95% confidence interval shows that the hypothesis that the emotional component of online CBE has an effect on relationship quality is supported. The emotional component of online CBE is reflected by the positive experience a customer feels when using a website (Gummerus et al., 2012; Harrigan et al., 2018). Relationship quality is conceptualised as a higher order construct of trust, customer satisfaction and commitment. The emotional component of online CBE is a feeling which the customer has toward the brand and it is expected to have an impact on relationship quality and this is supported by the results of pilot Study 1.

Hypothesis 7:

H_{70}: Behavioural component of online CBE has no effect on relationship quality.

H_{7A}: Behavioural component of online CBE has an effect on relationship quality.

The behavioural component of online CBE has no impact on relationship quality (β=0.11, T=0.46, p=0.65). In this pilot Study 1, relationship quality is conceptualised as a reflective-reflective higher order construct comprising trust, commitment and customer satisfaction. The behavioural component of online CBE is indicated by the importance which a customer places in using a brand's website. The importance which the customer places in using a brand's website would have an impact on the trust, commitment and satisfaction which the customer has of the brand. The behavioural component of online CBE would be expected to have an impact on relationship quality even though the results of pilot Study 1 indicate otherwise.

Table 7: Online CBE and relationship quality pilot study 1

	Hypothesis	β	T Statistic	P Values	Supported	Effect size	Size	Confidence interval (95%)		Supported
1	Behavioural -> Relationship quality	0.11	0.46	0.65	No	0.01	Small	-0.34	0.62	No
2	Cognitive -> Relationship quality	-0.05	0.17	0.86	No	0.00	Small	-0.72	0.44	No
3	Emotional -> Relationship quality	0.63	2.28	0.02	Yes	0.21	Medium	0.01	1.11	Yes

Table 7 displays the results of the impact of the cognitive, emotional and behavioural components of online CBE on relationship quality. The results of the pilot Study 1 shows that the cognitive and behavioural components of online CBE have no impact on relationship quality. The emotional component of online CBE has an impact on

relationship quality. So et al. (2016) conclude that customer engagement has an impact on relationship quality. So et al. (2016) conceptualise customer engagement as having five dimensions which, when combined, reflect the psychological and behavioural aspects of customer engagement.

Dessart's (2017) study in social media find trust and commitment as consequences of brand engagement. Dessart (2017) conceptualises brand engagement as having cognitive, affection and activation components. Carvalho and Fernandes (2018) indicate that customer commitment and customer trust are consequences of online customer engagement. Touni et al. (2020) show that customer engagement has an impact on brand relationship quality for a hotel's Facebook brand community.

4.8.3 Relationship quality and consequences of online customer engagement pilot study 1

Hypothesis 8:
H_{80}: Relationship quality has no effect on loyalty.
H_{8A}: Relationship quality has an effect on loyalty.

Relationship quality is a higher order construct comprising trust, commitment and customer satisfaction. In the pilot Study 1, relationship quality has no impact on loyalty (β=0.28, T=1.46, p =0.14). Ibrahim and Aljarah's (2021) study indicate that relationship quality has an impact on brand loyalty for social media marketing activities.

Hypothesis 9:
H_{90}: Relationship quality has no effect on brand advocacy.
H_{9A}: Relationship quality has an effect on brand advocacy.

Relationship quality is conceptualised as a higher order construct of trust, commitment and customer satisfaction. Relationship quality has an impact on brand advocacy (β=0.63, T=4.85, p <0.001). The effect size of relationship quality on brand advocacy is large. The bias corrected 95% confidence interval resolve that the hypothesis that relationship quality

has an impact on brand advocacy is supported. In a B2B study, Badrinarayanan and Sierra (2018) indicate that relationship quality has an impact on brand advocacy.

Hypothesis 10:

H_{100}: Relationship quality has no effect on brand preference.

H_{10A}: Relationship quality has an effect on brand preference.

Relationship quality has no impact on brand preference (β=0.12, T=0.60, p=0.55). In the hospitality industry, Erkmen and Hancer (2019) establish that customer satisfaction mediated by trust has an impact on brand preference. In this pilot Study 1, relationship quality is a higher order construct of trust, commitment and customer satisfaction.

Hypothesis 11:

H_{110}: Relationship quality has no effect on purchase intention.

H_{11A}: Relationship quality has an effect on purchase intention.

Relationship quality has no impact on purchase intention (β=0.14, T=0.69, p =0.49) in this pilot Study 1. Huber et al. (2010) show that brand relationship quality affects the repurchase intention. Kursan-Milakovic (2020), using the social cognitive theory, explore the relationship between purchase satisfaction and repurchase intention for online purchases in Croatia during the Covid-19 pandemic. He determines that purchase satisfaction has an impact on repurchase intention.

Table 8: Relationship quality, brand advocacy, brand preference and purchase intention pilot study 1

	Hypothesis	β	T Statistic	P Values	Supported	Effect size	Size	Confidence interval (95%)		Supported
1	Relationship quality -> Brand Advocacy	0.63	4.85	0.00	Yes	0.94	Large	0.33	0.84	Yes
2	Relationship quality -> Brand Preference	0.12	0.60	0.55	No	0.02	Small	-0.25	0.49	No
3	Relationship quality -> Loyalty	0.28	1.46	0.14	No	0.11	Small	-0.04	0.71	No
4	Relationship quality -> Purchase Intention	0.14	0.69	0.49	No	0.01	Small	-0.24	0.55	No

Table 8 shows the results of the hypothesis test of the impact of relationship quality on the consequences of online CBE which are loyalty, brand advocacy, brand preference and

purchase intention for the pilot Study 1. The pilot Study 1 shows that relationship quality has an impact on brand advocacy, with no impact on brand preference, loyalty or purchase intention. Ibrahim and Aljarah's (2021) study indicate that relationship quality has an impact on brand loyalty. In a B2B study, Badrinarayanan and Sierra (2018) establish that relationship quality has an impact on brand advocacy. Erkmen and Hancer (2019) determine that customer satisfaction, mediated by trust, has an impact on brand preference. Kursan-Milakovic (2020) unveils that purchase satisfaction has an impact on repurchase intention.

4.8.4 Mediation analysis of relationship quality on online CBE with its consequences pilot study 1

Table 9 captures the results of the specific indirect effects of relationship quality on the consequences of online CBE. The specific direct effects are when the construct passes through a specific mediator (Hair et al., 2017). Relationship quality has a specific indirect effect on the emotional component of online CBE and brand advocacy (β=0.40, T=2.20 p=0.03) Relationship quality does not have specific indirect effects for the emotional component of online CBE on loyalty, brand preference or purchase intention. Relationship quality does not have specific indirect effects for the cognitive and emotional components of online CBE with loyalty, brand preference, brand advocacy or purchase intention.

Table 9: Specific indirect effects of relationship quality on online CBE and consequences pilot study 1

	Hypothesis	β	T Statistic	P Values	Supported
1	Behavioural -> Relationship quality -> Brand Advocacy	0.07	0.44	0.66	No
2	Behavioural -> Relationship quality -> Brand Preference	0.01	0.20	0.84	No
3	Behavioural -> Relationship quality -> Loyalty	0.03	0.36	0.72	No
4	Behavioural -> Relationship quality -> Purchase Intention	0.02	0.23	0.82	No
5	Cognitive -> Relationship quality -> Brand Advocacy	-0.03	0.17	0.86	No
6	Cognitive -> Relationship quality -> Brand Preference	-0.01	0.08	0.94	No
7	Cognitive -> Relationship quality -> Loyalty	-0.01	0.14	0.89	No
8	Cognitive -> Relationship quality -> Purchase Intention	-0.01	0.10	0.92	No
9	Emotional -> Relationship quality -> Brand Advocacy	0.40	2.20	0.03	Yes
10	Emotional -> Relationship quality -> Brand Preference	0.07	0.46	0.65	No

11	Emotional -> Relationship quality -> Loyalty	0.18	0.93	0.35	No
12	Emotional -> Relationship quality -> Purchase Intention	0.09	0.54	0.59	No

Table 10 shows the total effects of the cognitive, emotional and behavioural components of online CBE on their consequences which are loyalty, brand advocacy, brand preference and purchase intention. The total effect is a relationship between any two constructs including any effects through a mediator or mediators (Hair et al., 2017). The behavioural component of online CBE has an impact on brand advocacy (β=0.59, T=2.83 p=0.01), brand preference (β=0.65, T=2.86 p=0.004) and loyalty (β=0.48, T=2.52 p=0.01). The behavioural component of online CBE has no impact on purchase intention. The cognitive component of online CBE has no impact on brand advocacy, brand preference, loyalty or purchase intention. The emotional component of online CBE has no impact on brand advocacy, brand preference and loyalty. The emotional component of online CBE has an impact on purchase intention (β=-0.58, T=2.28 p=0.02).

Table 10: Total effects of online CBE on its consequences pilot study 1

	Hypothesis	β	T Statistic	P Values	Supported
1	Behavioural -> Brand Advocacy	0.59	2.83	0.01	Yes
2	Behavioural -> Brand Preference	0.65	2.86	0.00	Yes
3	Behavioural -> Loyalty	0.48	2.52	0.01	Yes
4	Behavioural -> Purchase Intention	-0.12	0.46	0.64	No
5	Cognitive -> Brand Advocacy	0.08	0.31	0.75	No
6	Cognitive -> Brand Preference	-0.13	0.56	0.57	No
7	Cognitive -> Loyalty	0.13	0.50	0.62	No
8	Cognitive -> Purchase Intention	0.47	1.88	0.06	No
9	Emotional -> Brand Advocacy	0.10	0.35	0.73	No
10	Emotional -> Brand Preference	0.21	1.05	0.29	No
11	Emotional -> Loyalty	0.20	0.83	0.41	No
12	Emotional -> Purchase Intention	-0.58	2.28	0.02	Yes

Table 11 captures the direct effect of the components of online CBE on their consequences. The direct effect is the relationship between two constructs while controlling for the mediator (Hair et al., 2017). There is a direct effect of the behavioural component of online CBE on brand advocacy (β=-0.53, T=3.00 p=0.003), brand preference (β=-0.64, T=2.46 p=0.01) and loyalty (β=-0.44, T=2.12 p=0.03). The direct

effect between the behavioural component of online CBE and purchase intention is not significant.

The direct effect of the cognitive component of online CBE on brand advocacy, brand preference, loyalty or purchase intention is not significant. The direct effect of the emotional component of online CBE on brand advocacy, brand preference or loyalty is not significant. The direct effect of the emotional component of online CBE on purchase intention is significant (β=-0.67, T=2.67 p=0.01). Nyadzayo, Leckie and Johnson (2020) studied repurchase intention as a consequence for consumer brand engagement for Australian mobile phone brands. They found that the cognitive, emotional and behavioural components of CBE have an impact on repurchase intention.

Table 11: Direct effect of online CBE on its consequence pilot study 1

	Hypothesis	β	T Statistic	P Values	Significant
1	Behavioural -> Brand Advocacy	0.53	3.00	0.00	Yes
2	Behavioural -> Brand Preference	0.64	2.46	0.01	Yes
3	Behavioural -> Loyalty	0.44	2.12	0.03	Yes
4	Behavioural -> Purchase Intention	0.14	0.51	0.61	No
5	Cognitive -> Brand Advocacy	0.11	0.58	0.56	No
6	Cognitive -> Brand Preference	0.12	0.52	0.60	No
7	Cognitive -> Loyalty	0.14	0.59	0.56	No
8	Cognitive -> Purchase Intention	0.47	1.89	0.06	No
9	Emotional -> Brand Advocacy	0.29	1.21	0.23	No
10	Emotional -> Brand Preference	0.14	0.64	0.52	No
11	Emotional -> Loyalty	0.02	0.08	0.94	No
12	Emotional -> Purchase Intention	0.67	2.67	0.01	Yes

Table 12 presents the mediation analysis of relationship quality between the components of online CBE and their consequences. The specific indirect effect between the emotional component of online CBE and brand advocacy through relationship quality is significant. The direct effect between the emotional component of online CBE and brand advocacy is not significant. This implies that there is indirect effect only full mediation of the relationship quality between the emotional component of online CBE and brand advocacy (Hair et al., 2017). O'Rourke and MacKinnon (2015), as well as Zhao, Lynch and Chen (2010), demonstrate that it is possible to have full mediation with indirect effect only.

The total effect and direct effect between the behavioural component of online CBE and brand advocacy, brand preference or loyalty is significant. The specific indirect effect between the behavioural component of online CBE and brand advocacy, brand preference or loyalty is not significant. This implies that relationship quality does not mediate the behavioural component of online CBE and brand advocacy, brand preference or loyalty.

The total effect and direct effect between the emotional component of online CBE and purchase intention is significant. The specific indirect effect between the emotional component of online CBE and purchase intention is not significant. This implies that relationship quality does not mediate the emotional component of online CBE and purchase intention.

Table 12: Mediation analysis pilot study 1

	Hypothesis	Total effect supported	Direct effect supported	Specific indirect effect supported	Mediation
1	Behavioural -> Relationship quality -> Brand Advocacy	Yes	Yes	No	No mediation
2	Behavioural -> Relationship quality -> Brand Preference	Yes	Yes	No	No mediation
3	Behavioural -> Relationship quality -> Loyalty	Yes	Yes	No	No mediation
4	Behavioural -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation
5	Cognitive -> Relationship quality -> Brand Advocacy	No	No	No	No effect no mediation
6	Cognitive -> Relationship quality -> Brand Preference	No	No	No	No effect no mediation
7	Cognitive -> Relationship quality -> Loyalty	No	No	No	No effect no mediation
8	Cognitive -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation
9	Emotional -> Relationship quality -> Brand Advocacy	No	No	Yes	Indirect effect only full mediation
10	Emotional -> Relationship quality -> Brand Preference	No	No	No	No effect no mediation
11	Emotional -> Relationship quality -> Loyalty	No	No	No	No effect no mediation
12	Emotional -> Relationship quality -> Purchase Intention	Yes	Yes	No	No mediation

4.9 Antecedents of online CBE findings pilot study 1

The pilot Study 1 results show that involvement has no impact on the behavioural, cognitive and emotional components of online CBE. Harrigan et al.'s (2018) study indicates that involvement has an impact on the cognitive, emotional and behavioural components of brand engagement. Alghabarat et al. (2020) investigate the antecedents of consumer brand engagement on social media, using Facebook. The result illustrates that involvement has an impact on the cognitive component and the affection which is the emotional component of CBE.

Alghabarat et al. (2020) determine that involvement has no impact on the activation which is the behavioural component of CBE in contrast to what Harrigan et al.'s (2018) study establishes. The fact that at times involvement does affect online CBE and at times it does not, emphasise the importance of understanding the engagement subject, engagement object and context of engagement. This supports the observation made by Brodie et al. (2011) that the dimension of engagement varies. As the dimension of engagement varies, then its antecedents also varies.

The pilot Study 1 results shows participation has no impact on the behavioural, cognitive and emotional components of online CBE. Brodie et al. (2011) conceptualise that participation is an antecedent of customer engagement. Samala and Katkam (2019) study the role of participation on CBE for millennials for fashion brands on social network services. They conclude that participation has an impact on CBE with involvement playing a mediating role. The CBE was not broken down into its constituencies. Alghabarat et al. (2020) find a similar result where participation has an impact on all three components of CBE. Participation is an antecedent of online customer engagement when it is mediated by other variables even though it has no impact as a direct antecedent.

In the pilot Study 1, the researcher hypothesised that brand equity is an antecedent of online CBE. The pilot Study 1 results show that brand equity has no impact on the behavioural, cognitive and emotional components of online CBE. Brodie et al. (2011) argue that antecedents of customer engagement could be outcomes and vice versa. Sashi (2012) captures the cyclic nature of customer engagement where previous transactions have an impact on future customer engagement. Alghabarat et al.'s (2020) study put brand equity as a consequence of brand engagement and find no significance with components

of brand equity except activation which has an impact on brand loyalty. This could support this study where we put brand equity as an antecedent of online CBE.

In this pilot Study 1, brand equity has no impact on the components of online CBE. Cambra-Fierro et al. (2021) determine that brand equity in health services, when mediated by customer satisfaction and corporate reputation, has an impact on customer engagement. They consider brand equity as a higher order construct comprising brand awareness, brand image, perceived quality and brand loyalty.

Islam and Rahman (2016a) explore the relationship between brand love and customer engagement in fashion clothes. Their results indicates that brand love has an impact on customer engagement. Junaid et al. (2019) conclude that brand love mediates the relationship between experience and customer engagement for generation M in their smartphone use.

The results of the pilot Study 1 show that brand love has an impact on the behavioural component of online CBE. Brand love has no impact on the cognitive component of online CBE. Brand love has an impact on the emotional component of online CBE. This result supports the need to split online CBE into its components. An antecedent could have an impact on one component and not the other components of online CBE.

4.10 Online CBE affecting relationship quality findings pilot study 1

The results of the pilot Study 1 come out with the cognitive component of online CBE as having no impact on relationship quality. The emotional component of online CBE has an impact on relationship quality. The behavioural component of online CBE has no impact on relationship quality.

So et al. (2016) capture the psychological and behavioural aspects of customer engagement by using five higher order constructs which comprise identification, enthusiasm, attention, absorption and interaction. So et al. (2016) conceptualise relationship quality as a higher order construct consisting of trust and satisfaction. In this study, the researcher conceptualised relationship quality as a higher order construct comprising trust,

commitment and customer satisfaction. So et al. (2016) demonstrate that customer engagement enhances relationship quality. Touni et al. (2020) study the relationship between customer engagement and brand relationship quality with a Facebook brand community. Their results indicate a relationship between customer engagement and brand relationship quality.

Petzer and Van Tonder (2019) study the mediating effect of customer engagement between relationship quality and loyalty. They reveal that customer engagement positively mediates the relationship between relationship quality and loyalty. This supports the cyclic nature of customer engagement, as conceptualised by Brodie (2011) where antecedents could be consequences or vice versa. The results of the pilot Study 1 indicate that the components of online CBE have varying effects on relationship quality.

4.11 Relationship quality affecting the consequences of online CBE findings pilot study 1

This researcher hypothesised that the consequences of online brand engagement are loyalty, brand advocacy, brand preference and purchase intention. The pilot study results reveal that relationship quality has an impact on brand advocacy and it has no impact on brand preference, loyalty or purchase intention. These findings on brand preference, loyalty and purchase intention are in contrast to findings from other researchers.

Ibrahim and Aljarah (2021) study the impact of social media marketing on brand loyalty, mediated by relationship quality, using the stimulus organism response model. They conceptualise relationship quality as having trust, satisfaction and commitment. Ibrahim and Aljarah (2021) find that relationship quality has an impact on brand loyalty.

Tseng (2021) determines that relationship quality has an impact on customer loyalty. He conceptualises relationship quality as having satisfaction and commitment. He tests the relationship among relationship quality, service recovery and customer loyalty within the context of ecommerce websites. The service recovery has a moderating effect between relationship quality and customer loyalty.

Badrinarayanan and Sierra (2018) demonstrate that relationship quality of frontline employees with vendors has an impact on brand advocacy. Shimul and Phau (2018) explore the relationship between brand satisfaction and consumer advocacy for luxury brands. They determine that brand satisfaction has an impact on consumer advocacy. The researcher conceptualises satisfaction as a component of relationship quality in this current study.

Erkmen and Hancer (2019) study the impact of customer satisfaction, mediated by brand trust on brand preference within the hospitality industry. Erkmen and Hancer (2019) establish that customer satisfaction has a significant impact on trust and trust has a significant impact on brand preference. Huber et al. (2010) analyse the impact of brand misconduct on consumer brand relationship and repurchase intention using the theory of self-congruency. Huber et al. (2010) resolve that brand relationship quality affects the repurchase intention. Similar studies done illustrate that relationship quality has an impact on trust, brand advocacy, brand preference and purchase intention.

4.12 Relationship quality mediating the consequences of online CBE findings pilot study 1

In the pilot Study 1, there is no effect and no mediation between the cognitive component of online CBE and loyalty, brand advocacy, brand preference, or purchase intention. There is also only an indirect effect on full mediation of relationship quality between the emotional and cognitive components of online CBE and brand advocacy. Relationship quality does not provide mediation of the emotional component of online CBE with brand preference, loyalty or purchase intention in pilot Study 1. The results indicate that relationship quality does not mediate the behavioural component of online CBE with brand advocacy, brand preference loyalty or purchase intention.

4.13 Conclusion

The aim of the pilot the pilot Study 1 is to confirm the adequacy of the research instrument, the appropriateness of collecting the data online using Qualtrics and the suitability of the selected data processing and analysis using SmartPLS 4. In addition, the study reviewed whether the selected research process was able to provide answers to the research topic and associated research questions. The research instrument was found to be adequate.

Brand love had two indicator factor loadings less than 0.6 and loyalty had one indicator with a factor loading less than 0.6 All these three indicators were dropped in the questionnaire used for the final studies. The rest of the indicators had loadings greater than 0.6 which showed good loading on their latent variables. Gefen and Straub (2005) recommend that factor loadings less than 0.6 could be dropped from the model.

The respondents were comfortable using an online tool (Qualtrics) to provide their inputs to the study. SmartPLS 4 was found to be suitable for analysing the data collected. Some of the constructs showed results which are aligned with previous studies but some of the results were contrary to earlier studies. The sample size of 37 was small but adequate to test the research instrument. Minor changes were done to the wording of the research instrument to make it clearer. The next chapter presents the results for Study 2.

CHAPTER 5: STUDY 2

5.1 Introduction

The researcher reached out to information and communications technology (ICT) companies in B2B in South Africa. Companies in B2B are very protective of their employees. It took much effort to get feedback from 85 respondents. This chapter presents findings for the second Study 2. The results for the hypothesis testing for the antecedents and consequences of online CBE are presented. The results of the mediation analysis of relationship quality between components of online CBE and their consequences are presented.

5.2 Research method study 2

A quantitative research strategy was used for the second Study 2 using an online questionnaire. The research instrument was loaded on Qualtrics. Companies in the ICT industry in South Africa in B2B were approached requesting partaking of their employees in my research. Once the companies agreed for their employees to respond to my survey an anonymous link was submitted to them, and 85 respondents fully completed the questionnaire. All the respondents who did not fully complete the questionnaire were excluded from the study. The data collected was analysed using SmarPLS 4 and hypothesis analysis was done to assist in answering the research questions.

5.3 Design and procedure study 2

A quantitative research design was employed in Study 2. An online questionnaire was loaded on Qualtrics. A number of companies in the ICT industry in B2B in South Africa were approached. The ICASA database, South African stock exchange and the Internet Services Provider Association (ISPA) website were used to identify potential companies to request to participate in the study. Purposive sampling was used to approach the companies for their employees to respond to a survey of the study. Companies in South Africa are reluctant to provide details of their employees, so an anonymous link was generated on Qualtrics. As a result, the link was submitted to each of the companies for onward distribution to their employees. The same anonymous link was used by all people who responded to the survey in Study 2.

5.4 Research population study 2

The population for this study is all decision makers in the ICT industry in B2B in South Africa. Companies to approach were identified using the ICASA database, the South African stock exchange and the Internet Services Provider Association (ISPA) website.

5.5 Research sampling strategy study 2

Purposive sampling was used to identify the ICT decision makers in B2B in South Africa to contribute to this Study 2. The companies with employees which responded to the survey include Liquid Telecom South Africa Pty Ltd, Gijima Pty Ltd, Axiz Pty Ltd and SGT Solutions Pty Ltd. The list of other companies which allowed their employees to answer the survey are included in Appendix K.

5.6 Demographics characteristics for study 2

Demographic characteristics of respondents who fully answered the survey in study 2 is captured in Table 13. A total of 85 respondents fully undertook the survey and their gender is 37 females and 48 males. The ages group of 36-45 years has the most respondents with 38 people. Most respondents have at least a high school certificate. Most of the respondents are from large companies with employees greater than 200. The job functions have a fair distribution with most people being in the sales environment who responded to the study.

Table 13: Demographic attributes respondents study 2

Item	Description	Characteristic	Study 2
1	GENDER	MALE	48
		FEMALE	37
2	AGE	Below 24 years	1
		24-35 years	18
		36-45 years	38
		46-55 years	20
		Above 55 years	8
3	EDUCATIONAL PROFILE	No high school certificate	1
		High school certificate	28
		Diploma	24
		Degree	24
		Masters	6
		PhD	2
4	COMPANY SIZE	5 and less employees	2
		6-20 employees	2
		21-50 employees	7
		51-200 employees	4
		201-500	32
		501 and above	38
5	JOB FUNCTION	Engineer	8
		Accountant	5
		Sales	31
		Marketing	3
		Procurement	6
		Commercial	2
		Legal	1
		Specialist	5
		Manager	15
		Head of department	3
		Executive	6
		Total	85

5.7 Data analysis procedures study 2

Higher order constructs could be operationalised at higher levels of abstraction involving multiple layers of constructs (Hair et al., 2017). Other studies limit the abstraction for higher order constructs to two layers (Hair et al., 2017). In this research, brand equity and relationship quality are operationalised as higher order constructs with two layers of abstraction.

In partial least squares (PLS), three approaches have been proposed to evaluate higher order constructs and these are repeated indicators, the disjoint two stage approach and a hybrid approach. In the repeated indicators approach, the lower order construct indicators are repeated as indicators of the higher order construct and could result in artificially correlated residuals (Ritel at al., 2016). The repeated indicators approach has an additional problem of having additional indicator variables outside the lower order construct appearing as irrelevant of the higher order construct.

The disjoint two stage approach was developed to solve problems associated with the repeated indicators approach. The disjoint two stage approach uses latent variables for the lower order construct as indicator variables of the higher order construct. The first stage in the analysis excludes the higher order construct and is used to measure the latent variables of the lower order construct. The second stage generates a model with higher order constructs with the lower order constructs' latent variables as single item measure indicators for the higher order construct. This approach resolves all the issues associated with the repeated indicators approach.

The hybrid approach splits the lower order constructs indicator variables with half being used to measure the lower order constructs and the other half used to measure the higher order constructs (Riel et al, 2016). It is a challenge to implement the hybrid approach for odd number of lower order indicator variables. It is also not clear how to assign variables to the lower order construct and the higher order construct (Ritel et al., 2016).

In Study 2, the disjoint two stage approach was selected to analyse the reflective-reflective higher order constructs of brand equity and relationship quality identified in the model. The hybrid approach was not used because it was difficult to implement. The disjoint two

stage approach was used as it solves the issue which relate to the repeated indicators approach.

The lower order constructs for brand equity and relationship quality were evaluated first then followed by the model with the higher order constructs. The outer loadings for the lower order construct are adequate and are shown in Appendix L. The Cronbach's alpha is from 0.90-0.98, composite reliability is 0.85-0.96, indicating construct validity, as presented in Appendix L. Convergent validity is obtained with all the average variance extracted (AVE) values being from 0.73-0.91 and these values are listed in Appendix M. The model pass the Fornell-Larcker criterion as indicated in Appendix N and the HTMT discriminant validity test is adequate for the variables though there is a potential problem between loyalty and brand preference which has an HTMT ratio value of 0.92 as indicated in Appendix O.

In the second stage of the disjoint two stage approach, the latent variables are used to generate a new model with higher order constructs of brand equity and relationship quality. The PLS algorithm was used to test the measurement values for the higher order constructs. Brand equity pass the construct reliability test with a Cronbach's alpha of 0.84 and composite reliability of 0.90, as captured in table 14. Relationship quality passes the construct reliability test with a Cronbach's alpha of 0.86 and composite reliability of 0.92, as displayed in table 14. Brand equity and relationship quality passed the convergent validity test with average variance extracted (AVE) of 0.75 and 0.78 respectively, as listed in table 14.

All endogenous variables have significant R-Square value with a value greater or equal to 0.39 except purchase intention with an R-Square of 0.07, as shown in table 14. Bootstrapping show that the purchase intention R-Square is not significant. Purchase intention could therefore be removed from the structural model without impacting the model. Blindfolding was done on the model, and it provided a value of Q-square greater than zero for all endogenous variables which indicates that the structural model has predictive relevance, as displayed in table 14.

The analysis of the data collected showed no issues with multicollinearity with an inner model variance inflation factor (VIF) of between 1.38-3.69, as displayed in table 14. Hypothesis analysis was then done to check the relationship among the variables.

Table 14: Evaluation of model in study 2 stage 2

Item	Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	VIF	Adjusted R-Square	Q-Square
1	Behavioural	0.91	0.94	0.85	2.51	0.39	0.34
2	Brand Advocacy	0.85	0.91	0.77	3.65	0.64	0.49
3	Brand Love	0.95	0.96	0.73	2.06		
4	Brand Preference	0.96	0.97	0.90	3.65	0.58	0.52
5	Brand equity	0.84	0.90	0.75	2.05		
6	Cognitive	0.90	0.94	0.83	3.65	0.48	0.40
7	Emotional	0.95	0.96	0.86	2.45	0.58	0.51
8	Involvement	0.94	0.95	0.66	2.21		
9	Loyalty	0.95	0.96	0.81	3.65	0.55	0.45
10	Participation	0.94	0.96	0.85	1.38		
11	Purchase Intention	0.98	0.99	0.95	3.65	0.07	0.10
12	Relationship quality	0.86	0.92	0.78	2.16	0.52	0.39

All constructs pass the Fornell-Lacker discriminant validity test, as illustrated in table 15. The Fornell-Larcker criterion was used to check the discriminant validity of the Study 2 stage 2 measurement model. The Fornell-Larcker analysis indicate that the square root of the average variance extracted was greater than the correlations of the constructs between each other.

Table 15: Fornell-Larcker criterion study 2 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention	Relationship quality
Behavioural	**0.92**											
Brand Advocacy	0.55	**0.88**										
Brand Love	0.55	0.59	**0.85**									
Brand Preference	0.69	0.73	0.71	**0.95**								
Brand equity	0.57	0.60	0.61	0.49	**0.87**							
Cognitive	0.75	0.65	0.60	0.63	0.57	**0.91**						
Emotional	0.63	0.57	0.75	0.64	0.52	0.76	**0.93**					
Involvement	0.55	0.56	0.63	0.51	0.68	0.63	0.62	**0.81**				
Loyalty	0.67	0.75	0.63	0.88	0.51	0.57	0.57	0.48	**0.90**			
Participation	0.39	0.37	0.50	0.39	0.35	0.49	0.44	0.43	0.30	**0.92**		
Purchase Intention	0.30	0.33	0.26	0.35	0.19	0.31	0.27	0.12	0.35	0.27	**0.97**	
Relationship quality	0.66	0.80	0.60	0.67	0.76	0.70	0.59	0.67	0.69	0.29	0.21	**0.88**

The HTMT discriminant validity test was adequate with a few potential problems. Relationship quality passes the test with all other constructs, but it has potential problems with brand equity with an HTMT value of 0.91 and with brand advocacy with an HTMT value of 0.92. Loyalty has a potential problem with brand advocacy with an HTMT value of 0.92. The HMT values are captured in table 16.

Table 16: HTMT criterion study 2 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention
Brand Advocacy	0.62										
Brand Love	0.59	0.67									
Brand Preference	0.74	0.80	0.74								
CBBE	0.63	0.72	0.67	0.54							
Cognitive	0.83	0.73	0.65	0.67	0.65						
Emotional	0.68	0.64	0.80	0.67	0.57	0.83					
Involvement	0.59	0.63	0.68	0.53	0.76	0.69	0.66				
Loyalty	0.72	0.82	0.67	0.92	0.57	0.62	0.60	0.50			
Participation	0.42	0.41	0.53	0.42	0.38	0.53	0.46	0.46	0.32		
Purchase Intention	0.32	0.37	0.27	0.36	0.20	0.33	0.28	0.12	0.37	0.28	
Relationship quality	0.73	0.92	0.66	0.72	0.91	0.78	0.65	0.74	0.74	0.33	0.22

5.8 Hypothesis testing results study 2: Antecedents and consequences of online CBE

Hypothesis testing was done on the Study 2 data set with 85 respondents. The main research questions are:

1. What are the antecedents of online CBE?

2. Does online CBE affect relationship quality?

3. How does relationship quality affect the consequences of online CBE?

4. Does relationship quality mediate online CBE and the consequences of online CBE?

SmartPLS 4 is used as the statistical tool to test the hypothesis between the constructs.

5.8.1 Antecedents of online CBE study 2

Hypothesis 1a:
H_{1a0}: Involvement has no effect on the cognitive component of online CBE.
H_{1aA}: Involvement has an effect on the cognitive component of online CBE.

In this Study 2, involvement has an impact on the cognitive component of online CBE (β=0.31, T=2.87, p <0.001). The effect size is small. The 95% bias corrected confidence interval shows that the hypothesis that involvement has an impact on the cognitive component of online CBE is supported. The pilot Study 1 illustrates that involvement has no impact on the cognitive component of online CBE. Harrigan et al. (2018), together with Algharabat et al. (2020), maintain that empirical studies reveal that involvement is an antecedent of the cognitive component of consumer brand engagement. There is evidence to support the result that involvement has an impact on the cognitive component of online CBE in Study 2.

Hypothesis 1b:

H_{1b0}: Involvement has no effect on the emotional component of online CBE.

H_{1bA}: Involvement has an effect on the emotional component of online CBE.

Involvement has an impact on the emotional component of online CBE (β=0.24, T=2.50, p=0.01) in Study 2. The 95% bias corrected confidence interval indicates that involvement has an impact on the emotional component of online CBE. The results of the pilot Study 1 show that involvement has no impact on the emotional component of online CBE. Harrigan et al. (2018), in common with Algharabat et al.'s (2020) empirical studies demonstrate that involvement is an antecedent of the emotional component of CBE. Similar to what Harrigan et al. (2018), as well as Alghabarat et al. (2020) found, the conclusion is that involvement has an impact on the cognitive component of online CBE in Study 2.

Hypothesis 1c:

H_{1c0}: Involvement has no effect on the behavioural component of online CBE.

H_{1cA}: Involvement has an effect on the behavioural component of online CBE.

In Study 2 involvement has no impact on the behavioural component of online CBE (β=0.11 T=0.88, p =0.38). The results of the pilot Study 1 illustrate that involvement has no impact on the behavioural component of online CBE. Harrigan et al.'s (2018) study indicates that involvement has an impact on the behavioural component of customer engagement in contrast to Algharabat et al.'s (2020) results where involvement has no impact on the behavioural component of CBE. Different studies reveal different results on the impact of involvement on CBE. The difference in the results could be due to the different contexts in which the research are done. The research's conclusion is that involvement has no impact on the behavioural component of online CBE in Study 2.

Hypothesis 2a:

H_{2a0}: Brand equity has no effect on the cognitive component of online CBE.

H_{2aA}: Brand equity has an effect on the cognitive component of online CBE.

Brand equity is a higher order construct comprising brand awareness, uniqueness of brand associations and perceived quality. Brand equity has no impact on the cognitive component of online CBE (β=0.17 T=1.52, p =0.13) in Study 2. The 95% bias corrected confidence interval establishes that brand equity has no impact on the cognitive component of online customer engagement and the hypothesis is not supported. The pilot Study 1 indicates that brand equity has no impact on the cognitive component of online CBE. Not many studies have evaluated the impact of brand equity on the cognitive component of online CBE. Despite this limitation of not having other similar studies to compare the result with, it can be concluded based on Study 2 that brand equity has no impact on the cognitive component of online CBE.

Hypothesis 2b:
H_{2b0}: Brand equity has no effect on the emotional component of online CBE.
H_{2bA}: Brand equity has an effect on the emotional component of online CBE.

Study 2 reveal that brand equity has no effect on the emotional component of online CBE (β=-0.03 T=0.34, p =0.73). The bias corrected 95% confidence interval shows that brand equity has no effect on the emotional component of online CBE. The pilot Study 1 indicates that brand equity has no impact on the emotional component of online CBE. Study 2 reveals that brand equity has no effect on the emotional component of online CBE, but additional studies are required to be provide further insights of the impact of brand equity on the emotional component of online CBE.

Hypothesis 2c:
H_{2c0}: Brand equity has no effect on the behavioural component of online CBE.
H_{2cA}: Brand equity has an effect on the behavioural component of online CBE.

Study 2 indicates that brand equity has an impact on the behavioural component of online CBE (β=0.27 T=2.20, p =0.03). While the effect size was small, the bias corrected at 95% confidence interval illustrates that brand equity has an impact on the behavioural component of online CBE, so this hypothesis is supported. The pilot Study 1 illustrates that brand equity has no impact on the behavioural component of online CBE. The results of Study 2 of brand equity of having an impact on the behavioural component of online

CBE is in line with Keller (1993), who infers that brand equity takes place when a customer is knowledgeable about a brand and forms vivid, lasting and favourable brand associations resulting in behaviours in support of the brand.

Hypothesis 3a:

H_{3a0}: Participation has no effect on the cognitive component of online CBE.

H_{3aA}: Participation has an effect on the cognitive component of online CBE.

In Study 2, participation has no effect on the cognitive component of online CBE (β=0.19 T=1.84, p =0.07). The bias corrected 95% confidence interval show that participation has no impact on the cognitive component of online CBE. The pilot Study 1 establishes that participation has no impact on the behavioural component of online CBE. Alghabarat et al.'s (2020) empirical study determines that participation is an antecedent of the cognitive component of CBE. Contrary to Alghabarat et al.'s (2020) findings, Study 2 results show that participation has no impact on the cognitive component of online CBE.

Hypothesis 3b:

H_{3b0}: Participation has no effect on the emotional component of online CBE.

H_{3bA}: Participation has an effect on the emotional component of online CBE.

Participation has no effect on the emotional component of online CBE (β=0.04 T=0.47, p =0.64) in Study 2. The bias corrected 95% confidence interval shows that participation has no impact on the emotional component of online CBE, so the hypothesis is not supported. The pilot Study 1 reveals that participation has no impact on the emotional component of online CBE. Alghabarat et al. (2020) establish that participation is an antecedent of the emotional component of CBE. The researcher contends that participation should have an impact on the emotional component of online CBE similar to what Alghabarat et al. (2020) found. However, the results for Study 2 shows that participation has no effect on the emotional component of online CBE.

Hypothesis 3c:

H_{3c0}: Participation has no effect on the behavioural component of online CBE.

H_{3cA}: Participation has an effect on the behavioural component of online CBE.

Participation has no impact on the behavioural component of online CBE (β=0.11, T=0.88, p =0.38) in Study 2. The bias corrected at 95% confidence interval show that participation has no impact on the behavioural component of online CBE so this hypothesis is not supported. The pilot Study 1 points out that participation has no impact on the behavioural component of online CBE. Alghabarat et al. (2020) establish that participation is an antecedent of the behavioural component of CBE. The Study 2 results are not in line with the findings of Alghabarat et al. (2020). The difference could be due to the fact that the contexts of the studies are different. Study 2 was done in South Africa using a South Africa sample using ICT companies in B2B and Alghabarat et al.'s (2020) study was done in Jordan using Facebook fan pages of a mobile phone company.

Hypothesis 4a:

H_{4a0}: Brand love has no effect on the cognitive component of online CBE.

H_{4aA}: Brand love has an effect on the cognitive component of online CBE.

In Study 2, brand love has no impact on the cognitive component of online CBE love (β= 0.21, T=1.46, p=0.15). The bias corrected 95% confidence interval shows that brand love has no impact on the cognitive component of online CBE, so the hypothesis is not supported. The pilot Study 1 reveals that brand love has no impact on the cognitive component of online CBE. There is scant research of the brand love effect on the cognitive component of online CBE. Batra et al. (2012) denote that brand love is a multidimensional concept which includes attitude, and that attitude includes a cognitive component. Despite Batra et al.'s (2012) definition including a cognitive component, brand love in Study 2 has no impact on the cognitive component of online CBE.

Hypothesis 4b:

H_{4b0}: Brand love has no effect on the emotional component of online CBE.

H_{4bA}: Brand love has an effect on the emotional component of online CBE.

Brand love has as an impact on the emotional component of online CBE (β=0.60, T=5.90, $p < 0.001$) in Study 2. The effect size is large. The bias corrected 95% confidence interval

indicates that brand love has an impact on the emotional component of online CBE, so the hypothesis is supported. The pilot Study 1 shows that brand love has an impact on the emotional component of online CBE. Batra et al. (2012) indicate that brand love is multidimensional, and it includes a positive emotional connection. This emotional connection could be the reason why brand love has an impact on the emotional component of online CBE. This leads us to the conclusion that brand love has an impact on the emotional component of online CBE in Study 2.

Hypothesis 4c:

H_{4c0}: Brand love has no effect on the behavioural component of online CBE.

H_{4cA}: Brand love has an effect on the behavioural component of online CBE.

In Study 2, brand love has no impact on the behavioural component of online CBE (β=0.21, T=1.52, p =0.13). The bias corrected 95% confidence interval reveals that brand love has no impact on the behavioural component of online CBE and therefore the hypothesis is not supported. The pilot Study 1 shows that brand love has an impact on the behavioural component of online CBE. Despite the fact that Batra et al. (2012) argue that brand love has passion driven behaviours, the results of Study 2 indicate that brand love has no impact on the behavioural component of online CBE. The researcher is of the view that brand love should lead to behaviours to enable that brand love to be exerted similar to what Carrol and Ahuvia (2006) assert that brand love as being a fondness which customers could show to a brand or company. However, the results of Study 2 show that brand love has no impact on the behavioural component of online CBE.

Table 17 illustrates the hypothesis results of the antecedents of online CBE. The results of the hypothesis tests show that all the selected antecedents which are brand love, brand equity and involvement, except participation, have an impact on at least one component of online CBE in Study 2. Brand equity is a reflective-reflective higher order construct formed from brand awareness, uniqueness of brand associations and perceived quality.

Table 17: Antecedents of online CBE in study 2

	Hypothesis	β	T Statistics	P Values	Supported	Effect size	Size	Confidence interval 95% bias corrected		Supported
1	Brand Love -> Behavioural	0.21	1.52	0.13	No	0.04	Small	-0.09	0.47	No
2	Brand Love -> Cognitive	0.21	1.46	0.15	No	0.04	Small	-0.07	0.48	No
3	Brand Love -> Emotional	0.60	5.90	0.00	Yes	0.44	Large	0.39	0.79	Yes
4	Brand equity -> Behavioural	0.27	2.20	0.03	Yes	0.06	Small	0.04	0.53	Yes
5	Brand equity -> Cognitive	0.17	1.52	0.13	No	0.03	Small	-0.05	0.39	No
6	Brand equity -> Emotional	-0.03	0.34	0.73	No	0.00	Small	-0.18	0.13	No
7	Involvement -> Behavioural	0.19	1.37	0.17	No	0.03	Small	-0.08	0.45	No
8	Involvement -> Cognitive	0.31	2.87	0.00	Yes	0.09	Small	0.10	0.52	Yes
9	Involvement -> Emotional	0.24	2.50	0.01	Yes	0.07	Small	0.08	0.46	Yes
10	Participation -> Behavioural	0.11	0.88	0.38	No	0.01	Small	-0.10	0.38	No
11	Participation -> Cognitive	0.19	1.84	0.07	No	0.05	Small	-0.02	0.38	No
12	Participation -> Emotional	0.04	0.47	0.64	No	0.00	Small	-0.15	0.19	No

Involvement has an impact on emotional and cognitive components of online CBE. Involvement has no impact on the behavioural components of online CBE. Participation has no impact on the cognitive, emotional and behavioural components of online CBE.

Brand equity has no impact on the emotional and cognitive components of online CBE. Brand equity has an impact on the behavioural component of online CBE. Brand love has no impact on cognitive and behavioural components of online CBE. Brand love has an impact on the emotional component of online CBE.

Hollebeek et al. (2014) suggest that involvement and participation are antecedents of CBE. However, in both pilot Study 1 and in Study 2, participation had no impact on any of the components of online CBE. Cambra-Fierro et al. (2021) do not break down CBE into its components and find that brand equity, while mediated by satisfaction and corporate reputation, impact customer engagement. Alamoudi and Alharthi (2021), Islam and Rahman (2016a) together with Junaid et al.'s (2019) empirical studies demonstrate that brand love has an impact on customer engagement.

5.8.2 Online CBE and relationship quality study 2

Hypothesis 5:

H_{50}: Cognitive component of online CBE has no effect relationship quality.

H_{5A}: Cognitive component of online CBE has an effect on relationship quality.

Relationship quality is conceptualised as a higher order construct comprising trust, commitment and satisfaction. In Study 2, the cognitive component of online CBE has an effect relationship quality (β=0.40, T=3.13, p <0.001) with a small effect size. The bias corrected 95% confidence interval establishes that the cognitive component of online CBE has an impact on relationship quality supporting the hypothesis. The pilot Study 1 reveals that the cognitive component of online CBE has no impact on relationship quality. The cognitive component of online CBE has an impact on relationship quality as relationship quality includes belief that the relationship is worth maintaining. Belief is something which occurs as a cognitive process in the minds of the customers. Therefore, in Study 2, we could conclude that the cognitive component of online CBE has an impact on relationship quality.

Hypothesis 6:

H_{60}: Emotional component of online CBE t has no effect on relationship quality.

H_{6A}: Emotional component of online CBE has an effect on relationship quality.

In Study 2, the emotional component of online CBE has no effect on relationship quality (β=0.10, T=0.81, p =0.42). The bias corrected 95% confidence interval illustrates that the emotional component of online CBE has no impact on relationship quality and therefore the hypothesis is not supported. In the pilot Study 1, the emotional component of online CBE has an impact on relationship quality. In B2B, relationship quality includes a positive emotional feeling which is aroused when a company reviews each part of its business dealings with another company which leads to the inference that the emotional component of online brand engagement has an impact on relationship quality. This is in contrast to the results of Study 2 which illustrate that the emotional component of online CBE has no impact on relationship quality.

Hypothesis 7:

H_{70}: Behavioural component of online CBE has no effect on relationship quality.

H_{7A}: Behavioural component of online CBE has an effect on relationship quality.

The behavioural component of online CBE has an impact on relationship quality (β=0.31, T=3.36, p <0.001) in Study 2 with a small effect size. The bias corrected at 95% confidence interval shows that the behavioural component of online CBE has an impact on relationship quality and therefore the hypothesis is supported. In pilot Study 1, the behavioural component of online CBE has no effect on relationship quality. Harrigan et al. (2018), as well as Pansari and Kumar (2017), argue that the behavioural component of online CBE is shown by the importance which a customer shows when using a brand's website. Based on this, an inference could be made that the behavioural component of online brand engagement would have an impact on relationship quality. This supports the results that the behavioural component of online CBE has an impact on relationship quality in Study 2.

Table 18: Online CBE and relationship quality study 2

	Hypothesis	β	T Statistics	P Values	Supported	Effect size	Size	Confidence interval 95% bias corrected		Supported
1	Behavioural -> Relationship quality	0.31	3.36	0.00	Yes	0.09	Small	0.11	0.47	Yes
2	Cognitive -> Relationship quality	0.40	3.13	0.00	Yes	0.10	Small	0.14	0.64	Yes
2	Emotional -> Relationship quality	0.10	0.81	0.42	No	0.01	Small	-0.16	0.31	No

Table 18 captures the results of the impact of the cognitive, emotional and behavioural components of online CBE on relationship quality. Relationship quality is a reflective-reflective higher construct formed by trust, commitment and customer satisfaction. The cognitive and behavioural components of online CBE have an impact on relationship quality in Study 2. The emotional component of online CBE has no impact on relationship quality in Study 2.

Dessart (2017) conceptualised brand engagement as having cognitive, affection and activation components. Affection is similar to emotional, and activation is similar to behavioural. Dessart (2017) found trust and commitment as being consequences of brand engagement. According to Carvalho and Fernandes (2018), commitment and trust are the

result of online customer engagement. For a Facebook hotel community, Touni et al. (2020) illustrate that customer engagement impacts brand relationship quality. So et al. (2016) determine that customer engagement has an impact on relationship quality.

5.8.3 Relationship quality and consequences of online CBE in study 2

Hypothesis 8:

H_{80}: Relationship quality has no effect on loyalty.

H_{8A}: Relationship quality has an effect on loyalty.

The tendency to frequently buy preferred products or services is known as loyalty (Liu et al., 2021; Oliver, 1999). Relationship quality in this study, is conceptualised as a reflective-reflective higher order construct of trust, commitment and customer satisfaction. Relationship quality has an impact on loyalty (β=0.44, T=4.01, p <0.001) in Study 2. The effect size is medium. The bias corrected 95% confidence interval demonstrates that relationship quality has an impact on loyalty. In the pilot Study 1, relationship quality has no impact on loyalty. Ibrahim and Aljarah (2021) demonstrate that relationship quality has an impact on brand loyalty. The results in Study 2 and findings from previous studies imply that relationship quality has an impact on loyalty.

Hypothesis 9:

H_{90}: Relationship quality has no effect on brand advocacy.

H_{9A}: Relationship quality has an effect on brand advocacy.

Brand advocacy could be regarded as using goods or service with eagerness, referring them to others and being open to ignoring their imperfections (Bhattcharya & Sen, 2003; Bilro et al., 2019; Klein & Dawar, 2004; Peloza, 2006). Relationship quality has an impact on brand advocacy (β=0.69, T=7.76, p <0.001) in Study 2. The effect size is large. The bias corrected 95% confidence interval demonstrates that relationship quality has an impact on brand advocacy. In the pilot Study 1, relationship quality has an impact on brand advocacy. Another study in B2B by Badrinarayanan and Sierra (2018) indicates that relationship quality has an impact on brand advocacy. The results of Study 2, while supported by

Badrinarayanan and Sierra (2018), signal that relationship quality has an impact on brand advocacy.

Hypothesis 10:
H_{100}: Relationship quality has no effect on brand preference.
H_{10A}: Relationship quality has an effect on brand preference.

Brand preference involves favouring one supplier over all others when considering the choices and picking a provider (Erkmen & Hancer, 2019; Hellier et al., 2003). Relationship quality has an impact on brand preference (β=0.33, T=3.03, p <0.001) in study 2. The effect size is small. The bias corrected 95% confidence interval establishes that relationship quality has an impact on brand preference and therefore the hypothesis is supported. In the pilot Study 1, relationship quality has no impact on brand preference. Erkmen and Hancer (2019) reveal that in the hospitality industry, customer satisfaction mediated by trust, has an impact on brand preference. A consideration of previous studies and the results of Study 2 illustrate that relationship quality has an impact on brand preference.

Hypothesis 11:
H_{110}: Relationship quality has no effect has no effect on purchase intention.
H_{11A}: Relationship quality has an effect on purchase intention.

Purchase intention could be thought of as a five-dimensional construct made of the following: willingness to pay, financial capacity to spend, possible spending plans, rebuy options and wanting to spend (Blackwell et al., 2001; Dash et al., 2021; Shao et al., 2004). Relationship quality has no impact on purchase intention (β=0.06, T=0.42, p=0.68) in Study 2. The bias corrected 95% confidence interval exhibits that relationship quality has no impact on purchase intention and therefore the hypothesis is not supported in Study 2. In pilot Study 1, relationship quality has no impact on purchase intention. Huber et al. (2010) illustrate that brand relationship quality affects the repurchase intention. Kursan-Milakovic (2020), using the social cognitive theory, explore the relationship between purchase satisfaction and repurchase intention for online purchases in Croatia during the Covid-19 pandemic. He determines that purchase satisfaction has an impact on repurchase intention. Though previous studies and theory indicate that relationship quality does have

an impact on purchase intention, the results of Study 2 shows that relationship quality has no impact on purchase intention.

Table 19: Relationship quality, loyalty, brand advocacy, brand preference and purchase intention study 2

	Hypothesis	β	T Statistics	P Values	Supported	Effect size	Size	Confidence interval 95% bias corrected		Supported
1	Relationship quality -> Brand Advocacy	0.69	7.73	0.00	Yes	0.64	Large	0.50	0.85	Yes
2	Relationship quality -> Brand Preference	0.33	3.03	0.00	Yes	0.13	Small	0.11	0.54	Yes
3	Relationship quality -> Loyalty	0.44	4.01	0.00	Yes	0.21	Medium	0.22	0.65	Yes
4	Relationship quality -> Purchase Intention	0.06	0.42	0.68	No	0.00	Small	-0.22	0.31	No

Table 19 display the hypothesis tests results of relationship quality on loyalty, brand advocacy, brand preference and purchase intention. Relationship quality is conceptualised as a reflective-reflective higher order construct of trust, commitment and customer satisfaction. Relationship quality has an impact on brand advocacy, brand preference and loyalty. Relationship quality has no impact on purchase intention. Huber et al. (2010) demonstrate that brand relationship quality affects the repurchase intention. Badrinarayanan and Sierra (2018), using a higher order construct derived from trust, commitment and satisfaction, did an empirical study which reveals that relationship quality has an impact on brand advocacy.

Erkmen and Hancer (2019) determine that in the hospitality industry, customer satisfaction mediated by trust, has an impact on brand preference. Ibrahim and Aljarah (2021) confirm that relationship quality has an impact on brand loyalty for social media marketing activities. Based on previous studies, it would be expected that relationship quality would have an impact on purchase intention, but the results of Study 2 indicate otherwise. In agreement with previous studies, relationship quality has an impact on loyalty, brand advocacy and brand preference in Study 2.

5.8.4 Mediation analysis of relationship quality on online CBE with its consequences in study 2

Table 20 shows the specific indirect effect of relationship quality as it mediates the components of online CBE with its consequences. The specific indirect effects are when

the construct passes through a specific mediator (Hair et al., 2017). Relationship quality has no specific indirect effect on the emotional component of online CBE with loyalty, brand preference, brand advocacy or purchase intention. Relationship quality provides specific indirect effects for the behavioural component of online CBE with loyalty (β=0.14, T=2.85 p < 0.001), behavioural component of online CBE with brand advocacy (β=0.21, T=3.27 p < 0.001) and behavioural component of online CBE with brand preference (β=0.10, T=2.34 p=0.02). Relationship quality provides specific indirect effects for cognitive component of online CBE with loyalty (β=0.18, T=2.36 p=0.02), cognitive component of online CBE with brand advocacy (β=0.27, T=2.83 p=0.01) and cognitive component of online CBE with brand preference (β=0.13, T=2.02 p=0.04).

Table 20: Specific indirect effects of relationship quality on online CBE and consequences study 2

	Hypothesis	β	T Statistics	P Values	Supported
1	Behavioural -> Relationship quality -> Brand Advocacy	0.21	3.27	0.00	Yes
2	Behavioural -> Relationship quality -> Brand Preference	0.10	2.34	0.02	Yes
3	Behavioural -> Relationship quality -> Loyalty	0.14	2.85	0.00	Yes
4	Behavioural -> Relationship quality -> Purchase Intention	0.02	0.40	0.69	No
5	Cognitive -> Relationship quality -> Brand Advocacy	0.27	2.83	0.01	Yes
6	Cognitive -> Relationship quality -> Brand Preference	0.13	2.02	0.04	Yes
7	Cognitive -> Relationship quality -> Loyalty	0.18	2.36	0.02	Yes
8	Cognitive -> Relationship quality -> Purchase Intention	0.02	0.38	0.70	No
9	Emotional -> Relationship quality -> Brand Preference	0.03	0.76	0.45	No
10	Emotional -> Relationship quality -> Brand Advocacy	0.07	0.81	0.42	No
11	Emotional -> Relationship quality -> Loyalty	0.04	0.77	0.44	No
12	Emotional -> Relationship quality -> Purchase Intention	0.01	0.26	0.80	No

Table 21 shows the total effect of online CBE on its consequences. The relationship between any two variables including effects of a mediator or mediators is known as total effects (Hair et al., 2017). Behavioural component of online CBE has an impact on loyalty (β=0.51, T=4.46 p < 0.001) and brand preference (β=0.46, T=3.99 p <0.001). Behavioural component of online CBE has no impact on brand advocacy and purchase intention. The cognitive component of online CBE has an impact on brand advocacy (β=0.42, T=2.60 p=0.01). The cognitive component of online CBE has no impact on brand preference, loyalty or purchase intention. The emotional component of online CBE has an impact on

brand preference (β=-0.32, T=2.21 p=0.03). The emotional component of online CBE has no impact on loyalty, brand advocacy and purchase intention.

Table 21: Total effects of online CBE on its consequences study 2

	Hypothesis	β	T Statistics	P Values	Supported
1	Behavioural -> Brand Advocacy	0.12	0.90	0.37	No
2	Behavioural -> Brand Preference	0.46	3.99	0.00	Yes
3	Behavioural -> Loyalty	0.51	4.46	0.00	Yes
4	Behavioural -> Purchase Intention	-0.16	0.92	0.36	No
5	Cognitive -> Brand Advocacy	0.42	2.60	0.01	Yes
6	Cognitive -> Brand Preference	0.03	0.19	0.85	No
7	Cognitive -> Loyalty	0.01	0.06	0.96	No
8	Cognitive -> Purchase Intention	-0.15	0.71	0.48	No
9	Emotional -> Brand Advocacy	0.18	1.09	0.28	No
10	Emotional -> Brand Preference	0.32	2.21	0.03	Yes
11	Emotional -> Loyalty	0.24	1.33	0.18	No
12	Emotional -> Purchase Intention	-0.06	0.32	0.75	No

Table 22 displays the direct effects of the components of online CBE on its consequences in Study 2. The interaction between variables while controlling for the moderator is the direct effect (Hair et al., 2017). There is a direct effect of the behavioural component of online CBE on brand preference (β=0.36, T=2.299 p< 0.001) and on loyalty (β=0.37, T=3.39 p<0.001). The direct effect between the behavioural component of online CBE and brand advocacy or purchase intension is not significant. The direct effect of the cognitive component of online CBE on brand advocacy, brand preference, loyalty or purchase intention is not significant. The direct effect of the emotional component of online CBE on brand preference is significant (β=0.29, T=2.13 p=0.03). The direct effect of the emotional component of online CBE on brand advocacy, loyalty or purchase intention is not significant.

Table 22: Direct effect of online CBE on its consequences pilot study 2

	Hypothesis	β	T Statistics	P Values	Supported
1	Behavioural -> Brand Advocacy	-0.09	0.68	0.50	No
2	Behavioural -> Brand Preference	0.36	2.99	0.00	Yes
3	Behavioural -> Loyalty	0.37	3.39	0.00	Yes
4	Behavioural -> Purchase Intention	-0.18	1.00	0.32	No
5	Cognitive -> Brand Advocacy	0.15	1.09	0.28	No
6	Cognitive -> Brand Preference	-0.10	0.53	0.60	No
7	Cognitive -> Loyalty	-0.17	1.05	0.30	No
8	Cognitive -> Purchase Intention	-0.17	0.75	0.46	No
9	Emotional -> Brand Advocacy	0.11	0.96	0.34	No
10	Emotional -> Brand Preference	0.29	2.13	0.03	Yes
11	Emotional -> Loyalty	0.20	1.22	0.22	No
12	Emotional -> Purchase Intention	-0.06	0.35	0.73	No

Table 23 captures the mediation analysis in Study 2 of the relationship quality between the components of online CBE and their consequences. The total effect (β=0.12, T=0.90 p=0.37) as well as the direct effect (β=-0.09, T=0.68 p=0.50) between the behavioural component of online CBE and brand advocacy is not significant. The specific indirect effects of relationship quality for the behavioural component of online CBE with brand advocacy is significant (β=0.21, T=3.27 p<0.001). This provides indirect effect only full mediation of relationship quality for the behavioural component of online CBE and brand advocacy. It is possible to have only indirect full mediation as demonstrated by O'Rourke and MacKinnon (2015), as well as Zhao et al. (2010).

Table 23: Mediation analysis study 2

		Total effect significant	Direct effect significant	Specific indirect effect significant	Mediation
1	Behavioural -> Relationship quality -> Brand Advocacy	No	No	Yes	Indirect effect only full mediation
2	Behavioural -> Relationship quality -> Brand Preference	Yes	Yes	Yes	Partial mediation
3	Behavioural -> Relationship quality -> Loyalty	Yes	Yes	Yes	Partial mediation
4	Behavioural -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation
5	Cognitive -> Relationship quality -> Brand Advocacy	Yes	No	Yes	Full mediation
6	Cognitive -> Relationship quality -> Brand Preference	No	No	Yes	Indirect effect only full mediation
7	Cognitive -> Relationship quality -> Loyalty	No	No	Yes	Indirect effect only full mediation
8	Cognitive -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation
9	Emotional -> Relationship quality -> Brand Advocacy	No	No	No	No effect no mediation
10	Emotional -> Relationship quality -> Brand Preference	Yes	Yes	No	Direct effect only no mediation
11	Emotional -> Relationship quality -> Loyalty	No	No	No	No effect no mediation
12	Emotional -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation

The behavioural component of online CBE with brand preference is partially mediated by relationship quality. The specific indirect effect of relationship quality for the behavioural component of online CBE with brand preference (β=0.10, T=2.34 p=0.02) is significant. The total effect (β=0.46, T=3.99 p<0.001), as well as direct effect (β=0.36, T=2.99 p<0.001) between the behavioural component and brand preference are both significant.

Relationship quality partially mediates the behavioural component of online CBE on loyalty. The total effect of the behavioural component of online CBE on loyalty is significant (β=0.51, T=4.46, p<0.001). The direct effect of the behavioural component of online CBE on loyalty is significant (β=0.37, T=3.39 p<0.001). The specific indirect effect of relationship quality on the behavioural component of online CBE with loyalty is significant (β=0.14, T=2.85 p<0.001). Relationship quality does not mediate the behavioural component of online CBE with purchase intention.

Relationship quality fully mediates the cognitive component of online CBE with brand advocacy. Relationship quality has significant specific indirect effects for the cognitive component of online CBE with brand advocacy (β=0.27, T=2.83 p=0.01). The direct effect between the cognitive component of online CBE and brand advocacy is not significant (β=0.15, T=1.09 p=0.28). The total effect between the cognitive component of online CBE and brand advocacy is significant (β=0.42, T=2.60 p=0.01).

Relationship quality provides an indirect effect only full mediation for the cognitive component of online CBE with brand preference. The specific indirect effect of relationship quality on the cognitive component of online CBE with brand preference is significant (β=0.13, T=2.02 p=0.04). The total effect between the cognitive component of online CBE and brand preference is not significant. The direct effect of the cognitive component of online CBE on brand preference is not significant.

Relationship quality provides indirect effect only full mediation between the cognitive component of online CBE with loyalty. The total effect (β=0.01, T=0.06 p=0.96) and direct effect (β=-0.17, T=1.05 p=0.30) between the cognitive component of online CBE

with loyalty are not significant. The specific indirect effect of relationship quality on the cognitive component of online CBE with loyalty is significant (β=-0.18, T=2.36, p=0.02). Relationship quality does not mediate the cognitive component of online CBE with purchase intention.

In Study 2, relationship quality does not provide any mediation between the emotional component of online CBE with brand advocacy, brand preference, loyalty or purchase intention. Adhikari and Panda (2019) did an empirical study and found that relationship quality mediates consumer brand engagement and brand loyalty. The current study breaks down online CBE into its components of cognitive, behavioural and emotional. The mediation impact of relationship quality on these three components with their consequences ranges from no mediation, partial mediation to full mediation in Study 2.

5.9 Antecedents of online CBE findings in study 2

In this Study 2, involvement has an impact on the cognitive and emotional components of online CBE. In study 2, involvement has no impact on the behavioural component of online CBE. The pilot Study 1 results reveal that involvement has no impact on the behavioural, cognitive and emotional components of online CBE. Harrigan et al.'s (2018) study determines that involvement has an impact on the cognitive, emotional and behavioural components of brand engagement. Alghabarat et al. (2020) investigate the antecedents of CBE on social media using Facebook and the results show involvement has an impact on the cognitive component, as well as the affection which is the emotional component of CBE. Alghabarat et al.'s (2020) results are similar to the results obtained in study 2 where involvement has an impact on the cognitive and emotional components of online CBE.

Algharat et al. (2020) illustrate that involvement has no impact on activation which is the behavioural component of CBE in contrast to what Harrigan et al.'s (2018) study shows. This supports the assertion made by Brodie et al. (2011) that the way different engagement subjects or objects display the cognitive, emotional and behavioural attributes varies greatly and is affected by the context as well. This could affect the impact of the antecedents of online CBE.

In Study 2, participation has no effect on the cognitive, emotional and behavioural components of online CBE. The pilot Study 1 results unveil that participation has no impact on the behavioural, cognitive and emotional components of online CBE. Brodie et al. (2011) conceptualise that participation is an antecedent of customer engagement. Samala and Katkam (2019) demonstrate that participation has an impact on CBE when mediated by involvement. Participation needs mediation for it to have an effect on online CBE. The effect of some antecedents of online CBE needs mediation for them to have an impact on online CBE. O'Rourke and MacKinnon (2015) recommend the use of mediators to make theories and studies more elaborate.

Study 2 reveals that brand equity has no effect on the emotional and cognitive components of online CBE. Study 2 indicates that brand equity has an impact on the behavioural component of online CBE. The pilot Study 1 results show that brand equity has no impact on the behavioural, cognitive and emotional components of online CBE. Brodie et al. (2011), together with Sashi (2012), argue that antecedents of customer engagement could be outcomes and vice versa. In the pilot Study 1, brand equity has no impact on the components of online CBE. Cambra-Fierro et al. (2021) illustrate that brand equity in health services, when mediated by customer satisfaction and corporate reputation, has an impact on customer engagement. They consider brand equity as a higher order construct comprising brand awareness, brand image, perceived quality and brand loyalty.

Study 2 indicates that brand love has no impact on the cognitive and behavioural components of online CBE. Brand love has as an impact on the emotional component of online CBE in Study 2. In the pilot Study 1, brand love has an impact on the behavioural and emotional components of online CBE. In Study 1, brand love has no impact on the cognitive component of online CBE. These results assert the need to split online CBE into its constituencies. An antecedent could have an impact on one component and not on the other components.

5.10 Online CBE affecting relationship quality findings in study 2

In Study 2, the behavioural and cognitive components of online CBE have an impact on relationship quality. The emotional component of online CBE has no impact on relationship quality in Study 2. The results of the pilot Study 1 show that the cognitive and behavioural components of online CBE as having no impact on relationship quality. The emotional component of online CBE has an effect on relationship quality in pilot Study 1. The Study 2 results establish that the components of online CBE do not have the same effect on relationship quality.

So et al. (2016) captures the psychological and behavioural aspects of customer engagement by using five constructs which comprise identification, enthusiasm, attention, absorption and interaction. So et al. (2016) demonstrate that customer engagement enhances relationship quality which they conceptualised as having trust and satisfaction. In Study 2, relationship quality is conceptualised as a higher order construct of trust, commitment and customer satisfaction. Touni et al. (2020) establish that customer engagement has an impact on brand relationship quality within a Facebook brand community. The results in Study 2 imply that the components of online CBE could be used by brand managers to determine the desired level of relationship quality.

5.11 Relationship quality affecting the consequences of online CBE findings in study 2

Relationship quality has an impact on brand advocacy, brand preference and loyalty in Study 2. Relationship quality has no impact on purchase intention. The pilot Study 1 indicates that relationship quality has an influence on brand advocacy, and it has no impact on brand preference, loyalty and purchase intention.

Ibrahim and Aljarah (2021) study the impact of social media marketing on brand loyalty mediated by relationship quality, using the stimulus organism response model. They conceptualise relationship quality as having trust, satisfaction and commitment. Ibrahim and Aljarah (2021) find that relationship quality has an impact on brand loyalty. This result is similar to the result obtained in Study 2 where relationship quality has an impact on loyalty. The pilot Study 1 indicates that relationship quality has no impact on loyalty. Tseng (2021) demonstrates that relationship quality has an impact on customer loyalty.

Badrinarayanan and Sierra (2018) establish that relationship quality has an impact on brand advocacy. Shimul and Phau (2018) confirm that brand satisfaction has an impact on consumer advocacy for luxury brands. Erkmen and Hancer (2019) resolve that customer satisfaction has a significant impact on trust and trust has a significant impact on brand preference. Huber et al. (2010) study the impact of brand misconduct on consumer brand relationship quality and repurchase intention using the theory of self-congruency. Huber et al. (2010) capture that brand relationship quality affects the repurchase intention.

The results of Study 2, supported by previous similar studies, show that relationship quality will influence loyalty, brand advocacy and brand preference. However, the results of Study 2 do not support that relationship quality will influence purchase intention, opposing the results from previous similar studies. These findings indicate that relationship could be an important influencer of the outcomes of online CBE. Businesses could formulate strategies to set the required levels of loyalty, brand advocacy and brand preference by manipulating relationship quality.

5.12 Relationship quality mediating the consequences of online CBE findings in study 2

In Study 2, there is full mediation with indirect effects only between the behavioural component of online CBE and brand advocacy. Zhao et al. (2010) argue that it is possible to get only an indirect full mediation without total effects. Relationship quality results in partial mediation between both behavioural component of online CBE with brand preference as well as the behavioural component of online CBE with loyalty. Relationship quality does not provide any mediation between the behavioural component of online CBE and purchase intention.

In Study 2, relationship quality fully mediates the cognitive component of online CBE and brand advocacy. In Study 2, relationship quality provide full mediation with indirect effects only between the cognitive component of online CBE and loyalty and also between the cognitive component of online CBE and brand preference. Relationship quality does not provide any mediation between the cognitive component of online CBE and purchase

intention. In Study 2, relationship quality does not provide mediation between the emotional component of online CBE with brand advocacy, brand preference, loyalty or purchase intention. O'Rourke and Mackinnon (2015) argue that the addition of mediators will make the results of any study more elaborate.

Adhikari and Panda (2019 determine that relationship quality mediates consumer brand engagement and brand loyalty. Online CBE is broken down into its cognitive, behavioural, and emotional components in the current study. In this Study 2, relationship quality has a range of mediation effects on these three components with their consequences, which range from no mediation, partial mediation to full mediation.

5.13 Conclusion

Results from Study 2 show that participation is not an antecedent of online CBE. It was revealed that brand love, brand equity and involvement are antecedents of online CBE. Behavioural and cognitive components of online CBE have an impact on relationship quality but the emotional component of online CBE shows no impact. Relationship quality impacts brand advocacy, brand preference and loyalty in Study 2. Relationship quality has no impact on purchase intention. The mediating analysis shows relationship quality mediates some of the components of online CBE and the online CBE consequences. Relationship quality fully mediates the behavioural component of online CBE and brand advocacy. Relationship quality partially mediates the behavioural component of online CBE and brand preference, as well as the behavioural component of online CBE and loyalty. Relationship quality fully mediates the cognitive component of online CBE with brand advocacy, brand preference or loyalty. The next chapter presents the results for Study 3.

CHAPTER 6: STUDY 3

6.1 Introduction

Study 2 had 85 respondents necessitating the need to get additional respondents for the study in South Africa. It was difficult to get directly, additional people to respond to the survey in the study so Borderless Access was approached to assist with additional respondents in South Africa. The data set obtained in South Africa with the assistance of the Borderless Access was analysed as Study 3. Borderless Access has access to a panel of people in B2B in the ICT sector in South Africa. After cleaning the data from Borderless Access, the total number of respondents who remained was 160. A decision was made to analyse the respondents from Borderless Access on their own and compare them to pilot Study 1 and Study 2.

6.2 Research strategy study 3

A quantitative research strategy was used for this Study 3 using an online questionnaire. The research instrument was loaded on Qualtrics. Borderless Access was approached to assist with additional respondents. New research similar to the one used for Study 2 was created for the respondents from Borderless Access. This enabled the data provided by Borderless Access to be collected separately from both Study 1 and Study 2. An online link was sent to Borderless Access for them to distribute to their panel. Each respondent was provided with a unique identification code to ensure that the panel members only respond to the survey once. A total of 160 respondents fully completed the survey. Any respondent who had an incomplete response was excluded from the study. The data collected was analysed using SmartPLS 4 in order to test the hypothesis.

6.3 Research design and procedure study 3

A quantitative research design was employed for this Study 3, using a South Africa Borderless Access panel in B2B in ICT. An online questionnaire was loaded onto Qualtrics. An online link was generated and shared with Borderless Access who shared it with its panel of people in the ICT industry in South Africa in B2B. Qualtrics was configured to enable a unique identification for each South Africa respondent to be allocated. Borderless Access has a panel of 126,000 people in B2B in South Africa.

Borderless Access does in depth profiling to ensure that its panel members have enough quality to support B2B studies in ICT in South Africa. The information collected per each panellist include role at work, decision making authority, industry, company size and job titles.

To ensure that the South Africa panel was of adequate quality, Borderless Access went through a rigorous authentication process. Recruitment of respondents was through a website. The panellists went through a double opt-in process which conforms to the European Society for Opinions and Marketing Research (ESOMAR) guidelines. A mobile authentication provided triple opt-in by using a one-time password. The panellists were also verified using social media. Existing South Africa panellists were monitored using advanced tools and predictive algorithms. Those found wanting against the Borderless Access quality standards were removed from the panel.

In South Africa, Borderless Access has 126,000 panellists across a number of industries in B2B. These industries include information technology (IT), telecommunications, finance, manufacturing, business services, retail, education, health care, utilities, government, not-for-profit, hospitality, construction, and others. The panellists accepted to join the Borderless Access panel were responsible for making final decisions, had a significant input in making final decisions or influenced the decisions. The panellists played different roles at work which included business decision makers, IT decision makers, IT influencers, information workers, software developers, administrators, supervisors, human resources, distributors, resellers, profession staff and others.

The B2B companies were grouped as small enterprises with fewer than 100 employees, medium enterprises with 100-999 employees, and large enterprises with more than 1000 employees. The job title of the panellists included director, manager, department head, administrator, analyst, account executive, financial advisor, controller, programmer, owner, supervisor, teacher, technical specialist, tradesman, vice president, chief executive officer, chief operations officer, chief technology officer, chief information officer, chief financial officer, board member, and others.

6.4 Research population study 3

The population for this Study 3 is all decision makers in the ICT industry in B2B in South Africa. Borderless Access conducted a survey for this Study 3 from the 27th of July 2021 – 17th of August 2021 within its South African B2B panel. An anonymous Qualtrics link was distributed to potential respondents on the Borderless Access South Africa panel in B2B in ICT.

6.5 Research sampling strategy study 3

Purposive sampling was used to target ICT decision makers in ICT companies in South Africa. The survey was sent out to 600 respondents in South Africa on the Borderless Access panel in ICT in B2B. Each South African respondent had a unique identification number to be able to distinguish the responses from other panel members who responded to the survey. This unique identification number was appended to each South Africa response on Qualtrics. A total of 160 respondents remained after removing incomplete surveys.

6.6 Demographics characteristics study 3

Table 24 shows the demographics of the people who responded to the survey. A total of 160 respondents, comprising 82 males and 78 females, responded to the survey. Their age groups are below 24 years has eight respondents, 24-35 years old has 74 respondents, 43 respondents aged from 36-45 years, 21 are aged 46-55 years, and 14 are aged above 55 years. The educational profile of respondents ranges from no high school certificate to Doctor of Philosophy (PhD) with 61 respondents with a bachelor degrees, 40 possess diplomas, 31 have high school certificate, 25 has master degrees, two did not complete high school and one has a PhD.

Table 24: Demographic characteristics for study 3

Item	Description	Characteristic	Study 3
1	GENDER	MALE	82
		FEMALE	78
2	AGE	Below 24 years	8
		24-35 years	74
		36-45 years	43
		46-55 years	21
		Above 55 years	14
3	EDUCATIONAL PROFILE	No high school certificate	2
		High school certificate	31
		Diploma	40
		Degree	61
		Masters	25
		PhD	1
4	COMPANY SIZE	5 and less employees	9
		6-20 employees	16
		21-50 employees	25
		51-200 employees	36
		201-500	25
		501 and above	49
5	JOB FUNCTION	Engineer	14
		Accountant	9
		Sales	17
		Marketing	9
		Procurement	7
		Commercial	3
		Legal	5
		Specialist	4
		Manager	58
		Head of department	18
		Executive	16
		Total	160

The company profile ranges from five employees and fewer, to 501 employees and above. The largest number of respondents are from companies with 501 employees, and above which has 49 respondents. This is followed by companies with 51-200 employees with 36 respondents, companies with 21-50 employees has 25 respondents and companies with 201-500 employees with 25 respondents as well. Companies with five and fewer employees provide nine respondents. Companies with 6-20 employees provide16 respondents.

The respondents' occupations comprised engineers, accountants, sales professionals, marketing practitioners, procurement experts, commercial people, legal people, specialists, managers, heads of department and executives. Fifty-eight respondents are managers, 18 respondents are heads of departments, 17 belongs to the sales section, 16 respondents are executive officers, 14 respondents are engineers, nine respondents are accountants, nine respondents belong to marketing, seven respondents belong to the procurement section, three respondents belongs to the commercial team, five respondents are from legal and four respondents are specialists.

6.7 Data analysis procedures study 3

Statistical analysis was used to analyse the data obtained. The conceptual framework had 10 lower order constructs and two higher order constructs. A lower order construct has a single layer of abstraction and higher order constructs are operationalised at higher levels of abstraction involving multiple layers of constructs (Hair et al., 2017). Most research limits the abstraction for higher order constructs to two layers (Hair et al., 2017). Brand equity and relationship quality are operationalised as higher order constructs. They are operationalised with two layers of abstraction.

Different methods are used to evaluate higher order constructs. These methods are repeated indicators, disjoint two stage approach and hybrid approach. In the repeated indicators approach, the lower order construct indicators are repeated as indicators of the higher order constructs. The challenge for repeated indicators is that it could result in artificially correlated residuals and having additional indicator variables outside the lower order construct appearing as irrelevant for the higher order construct.

The disjoint two stage approach was developed to solve problems associated with the repeated indicators approach. The disjoint two stage approach uses latent variables for the lower order construct as indicator variables of the higher order construct. The first stage in the analysis excludes the higher order construct and was used to measure the latent variables of the lower order construct. The second stage generated a model with higher order constructs and the lower order constructs latent variables as single item measure indicators for the higher order construct. This approach resolves all the issues associated with the repeated indicators approach.

The hybrid approach splits the lower order constructs indicator variables with half being used to measure the lower order constructs and half used to measure the higher order construct. It is a challenge to implement the hybrid approach for odd numbers of lower order indicator variables and it is not clear how to assign variables to the lower order construct and the higher order construct. As such, the hybrid approach was not used in this research. In Study 3, the disjoint two stage approach was selected to analyse the reflective-reflective higher order constructs of brand equity and relationship quality identified in the model. The hybrid approach was not used because it was difficult to implement. The disjoint two stage approach was used as it solves the issues which relate to the repeated indicators approach.

The lower order constructs for the measurement model were evaluated first. The outer loading for the current Study 3 stage 1 is displayed in Appendix P. The outer loadings for all the lower order constructs are adequate with a minimum value of 0.67 and a maximum value of 0.93. The Cronbach's alpha, composite reliability and the average variance extracted (AVE) are exhibited in Appendix Q. There is construct validity with Cronbach's alpha values in the ranges 0.83-0.95 and composite reliability of 0.90-0.96. The constructs have convergent validity with all average variance extracted values in the range of 0.67-0.87. The model passes the Fornell-Larcker discriminant validity criterion as indicated in Appendix R. However, the HTMT as displayed in Appendix S is adequate but showed potential problems between some constructs that is between loyalty and brand advocacy with HTMT of 0.93, loyalty and brand preference with HTMT of 0.93, emotional compoment of online CBE and cognitive component of online CBE with HTMT of 0.94.

In the second stage, the higher constructs are used in the model. The latent variables for brand awareness, uniqueness of brand associations and perceived quality are used as reflective indicators for the high order construct, brand equity. The latent variables for commitment, customer satisfaction and perceived quality are used as reflective indicators for the high order construct relationship quality. Table 25 captures the Cronbach's alpha, composite reliability, average variance extracted, inner variance inflation factors (VIF), adjusted R-Square and the Q-Square for Study 3 stage 2 of the analysis.

Table 25: Evaluation of model study 3 stage 2

		Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	Inner VIF	Adjusted R-Square	Q-Square
1	Behavioural	0.83	0.90	0.75	2.5	0.63	0.46
2	Brand Advocacy	0.85	0.91	0.77	5.1	0.61	0.47
3	Brand Love	0.94	0.95	0.72	2.8		
4	Brand Preference	0.91	0.93	0.78	5.1	0.55	0.42
5	Brand equity	0.84	0.90	0.75	3.0		
6	Cognitive	0.87	0.92	0.80	3.9	0.66	0.52
7	Emotional	0.94	0.95	0.84	5.1	0.74	0.61
8	Involvement	0.95	0.95	0.67	1.3		
9	Loyalty	0.93	0.94	0.73	5.1	0.64	0.46
10	Participation	0.85	0.90	0.69	1.5		
11	Purchase Intention	0.95	0.96	0.86	5.1	0.01	0.01
12	Relationship quality	0.85	0.91	0.77	3.7	0.73	0.55

Brand equity has construct validity with Cronbach's alpha values of 0.84 and composite reliability of 0.90. Relationship quality has construct validity with a Cronbach's alpha of 0.85 and composite reliability of 0.91. Brand equity has convergent validity with average variance extracted of 0.75. Relationship quality has convergent validity with an average variance extracted of 0.77.

Table 26 present the Fornell-Larcker criterion for Study 3 stage 2. Brand equity passes the Fornell-Larcker discriminant validity test. Relationship quality passes the Fornell-Larcker discriminant validity test. All the constructs pass the Fornell-Larcker criterion showing discriminant validity of the constructs.

Table 26: Fornell-Larcker criterion study 3 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention	Relationship quality
Behavioural	**0.86**											
Brand Advocacy	0.60	**0.88**										
Brand Love	0.77	0.72	**0.85**									
Brand Preference	0.69	0.72	0.66	**0.88**								
Brand equity	0.71	0.65	0.80	0.62	**0.87**							
Cognitive	0.71	0.66	0.78	0.66	0.71	**0.89**						
Emotional	0.75	0.69	0.82	0.65	0.79	0.85	**0.92**					
Involvement	0.36	0.44	0.43	0.39	0.44	0.47	0.51	**0.82**				
Loyalty	0.72	0.83	0.73	0.85	0.67	0.71	0.71	0.46	**0.86**			
Participation	0.54	0.49	0.51	0.50	0.56	0.56	0.56	0.39	0.49	**0.83**		
Purchase Intention	0.00	0.00	0.04	-0.03	0.02	0.04	0.03	0.13	0.04	-0.08	**0.93**	
Relationship quality	0.72	0.79	0.83	0.69	0.83	0.79	0.84	0.56	0.76	0.49	0.11	**0.88**

Table 27 show the results of the HTMT test for Study 3 stage 2 analysis. The HTMT test indicates potential problems between relationship quality with brand advocacy with HTMT of 0.92, relationship quality with brand love with HTMT of 0.93, relationship quality with brand equity with HTMT of 0.98, relationship quality with the emotional component with HTMT of 0.93, loyalty with brand advocacy with HTMT of 0.93, loyalty with brand preference with HTMT of 0.93 and the emotional component with the cognitive component with HTMT of 0.94.

Table 27: HTMT criterion study 3 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention
Behavioural											
Brand Advocacy	0.72										
Brand Love	0.87	0.81									
Brand Preference	0.79	0.82	0.71								
Brand equity	0.85	0.77	0.89	0.70							
Cognitive	0.84	0.76	0.86	0.74	0.83						
Emotional	0.85	0.78	0.87	0.71	0.89	0.94					
Involvement	0.40	0.48	0.44	0.41	0.49	0.52	0.53				
Loyalty	0.82	0.93	0.77	0.93	0.74	0.78	0.75	0.48			
Participation	0.64	0.57	0.57	0.57	0.66	0.65	0.63	0.43	0.54		
Purchase Intention	0.06	0.04	0.06	0.04	0.07	0.05	0.05	0.13	0.06	0.12	
Relationship quality	0.85	0.92	0.93	0.78	0.98	0.90	0.93	0.63	0.85	0.57	0.12

The constructs have a high R-Square with an adjusted R-Square between 0.655-0.73, except for purchase intention with an adjusted R-Square of 0.01 which is considered low. The structural model has predictive relevance with a Q-Square greater than zero for all constructs. There are no issues with multicollinearity as the inner VIF is less than 10 for all constructs as shown in table 25.

6.8 Hypothesis testing results study 3: Antecedents and consequences of online CBE

Hypothesis testing was done on Study 3 data set with 160 respondents. The main research questions are:

1. What are the antecedents of online CBE?

2. Does online CBE affect relationship quality?

3. How does relationship quality affect the consequences of online CBE?

4. Does relationship quality mediate online CBE and the consequences of online CBE?

SmartPLS 4 is used as the statistical tool to test the hypothesis between the constructs.

6.8.1 Antecedents of online CBE study 3

Hypothesis 1a:
H_{1a0}: Involvement has no effect on the cognitive component of online CBE.
H_{1aA}: Involvement has an effect on the cognitive component of online CBE.

In Study 3, involvement has no impact on the cognitive component of online CBE (β=0.12, T=1.67, p =0.10). The effect size is small. The 95% bias corrected confidence interval show that involvement has no impact on the cognitive component of online CBE. Study 2 shows that involvement has an impact on the cognitive component of online CBE.

The pilot Study 1 shows that involvement has no impact on the cognitive component of online CBE. Harrigan et al. (2018), as well as Algharabat et al.'s (2020) studies determine that involvement is an antecedent of the cognitive component of CBE. The results of previous studies seem to suggest involvement has an impact on the cognitive component of online of CBE although the results of Study 3 conclude that involvement has no impact on the cognitive component of online CBE.

Hypothesis 1b:

H_{1b0}: Involvement has no effect on the emotional component of online CBE.

H_{1bA}: Involvement has an effect on the emotional component of online CBE.

The hypothesis test based on the p-value indicate involvement has no impact on the emotional component of online CBE in Study 3 (β=0.13, T=1.63, p=0.10). However, the analysis of the 95% bias corrected confidence interval reveals that involvement has an impact on the emotional component of online CBE in Study 3. Involvement has a small effect size on the emotional component of online CBE. Study 2 indicates that involvement has an impact on the emotional component of online CBE. The results of the pilot Study 1 show that involvement has no impact on the emotional component of online CBE. Harrigan et al. (2018), in common with Algharabat et al.'s (2020) study results unveil that involvement is an antecedent of the emotional component of CBE. The results from Study 2 and Study 3 concur with the findings of Harrigan et al. (2018), as well as Algharabat et al. (2020), which imply that involvement has an impact on the emotional component of online CBE. The conclusion is that involvement has an impact on the emotional component of online CBE in Study 3.

Hypothesis 1c:

H_{1c0}: Involvement has no effect on the behavioural component of online CBE.

H_{1cA}: Involvement has an effect on the behavioural component of online CBE.

The Study 3 results illustrate that involvement has no impact on the behavioural component of online CBE (β=-0.02 T=0.30, p =0.77). Study 2 shows that involvement has no impact on the behavioural component of online CBE. The pilot Study 1 unveils that involvement has no impact on the behavioural component of online CBE. Harrigan

et al.'s (2018) study indicates that involvement has an impact on the behavioural component of customer engagement. Alghabarat et al. (2020) did a study with results which reveals that involvement has no impact on the behavioural component of CBE. Different studies show different results on the impact of involvement on CBE. Being mindful of the hypothesising done in Study 3, my conclusion is that involvement has no impact on the behavioural component of online CBE in Study 3.

Hypothesis 2a:

H_{2a0}: Brand equity has no effect on the cognitive component of online CBE.

H_{2aA}: Brand equity has an effect on the cognitive component of online CBE.

In this Study 3, brand equity is conceptualised as a higher order construct comprising brand awareness, uniqueness of brand associations and perceived quality. Brand equity has no impact on the cognitive component of online CBE (β=0.15 T=1.48, p =0.14). The 95% bias corrected confidence interval confirms that brand equity has no impact on the cognitive component of online customer engagement. Study 2 shows that brand equity has no impact on the cognitive component of online CBE. The pilot Study 1 indicates that brand equity has no impact on the cognitive component of online CBE. There are limited studies which have analysed the impact of brand equity on the cognitive component of online CBE. The results of Study 3 conclude that brand equity has no impact on the cognitive component of online of online CBE.

Hypothesis 2b:

H_{2b0}: Brand equity has no effect on the emotional component of online CBE.

H_{2bA}: Brand equity has an effect on the emotional component of online CBE.

Study 3 shows that brand equity has an impact on the emotional component of online CBE (β= 0.30 T=3.95, p <0.001) with a small effect size. The bias corrected 95% confidence interval unveils that brand equity has an effect on the emotional component of online CBE and therefore the hypothesis is supported. Study 2 reveals that brand equity has no effect on the emotional component of online CBE. The pilot Study 1 indicates that brand equity has no impact on the emotional component of online CBE. My conceptualisation of brand equity includes perception which has an emotional component.

Therefore, brand equity would be expected to have an impact on the emotional component of online CBE. My conclusion is that brand equity has an impact on the emotional of online CBE in Study 3.

Hypothesis 2c:

H_{2c0}: Brand equity has no effect on the behavioural component of online CBE.

H_{2cA}: Brand equity has an effect on the behavioural component of online CBE.

In Study 3 brand equity has an impact on the behavioural component of online CBE (β=0.20 T=2.13, p =0.03). The effect size is small. The bias corrected 95% confidence interval indicates that brand equity has an impact on the behavioural component of online CBE, so this hypothesis is supported. The results of study 2 illustrate that brand equity has an impact on the behavioural component of online CBE. The pilot Study 1 demonstrates that brand equity has no impact on the behavioural component of online CBE. According to Keller (1993), brand equity occurs when a customer is aware of a brand and develops strong brand associations that lead to behaviours that support the brand. The findings of Study 3 confirm Keller's (1993) contention, and that brand equity has an impact on the behavioural component of online CBE. The conclusion is that in Study 3, brand equity has an impact on the behavioural component of online CBE.

Hypothesis 3a:

H_{3a0}: Participation has no effect on the cognitive component of online CBE.

H_{3aA}: Participation has an effect on the cognitive component of online CBE.

The p-value analysis shows that participation has no impact on the cognitive component of online CBE (β=0.16 T=1.86, p =0.06) in Study 3. However, the bias corrected 95% confidence interval suggests that participation has an impact on the cognitive component of online CBE in Study 3 with a small effect size, therefore the hypothesis is supported. Study 2 reveals that participation has no effect on the cognitive component of online CBE. The pilot Study 1 establishes that participation has no impact on the behavioural component of online CBE. Alghabarat et al.'s (2020) study illustrates that participation is

an antecedent of the cognitive component of CBE. The result in Study 3 that participation has an impact on the cognitive component of online CBE confirms previous similar studies, such as that by Alghabarat et al. (2020).

Hypothesis 3b:

H_{3b0}: Participation has no effect on the emotional component of online CBE.

H_{3bA}: Participation has an effect on the emotional component of online CBE.

Participation has an impact on the emotional component of online CBE (β=0.10 T=2.01, p =0.045) with a small effect size in Study 3. The bias corrected 95% confidence interval signals that participation has an impact on the emotional component of online CBE, so the hypothesis is supported. Study 2 illustrates that participation has no effect on the emotional component of online CBE. The pilot Study 1 reveals that participation has no impact on the emotional component of online CBE. Alghabarat et al. (2020) reveal that participation is an antecedent of the emotional component of CBE. In line with previous studies, such as that of Alghabarat et al. (2020), Study 3 determines that participation has an impact on the emotional component of online CBE.

Hypothesis 3c:

H_{3c0}: Participation has no effect on the behavioural component of online CBE.

H_{3cA}: Participation has an effect on the behavioural component of online CBE.

In Study 3, participation has an impact on the behavioural component of online CBE with a small effect size (β=0.16, T=,2.46 p =0.01) The bias corrected 95% confidence interval shows that participation has an impact on the behavioural component of online CBE, so this hypothesis is supported. Study 2 illustrates that participation has no impact on the behavioural component of online CBE. The pilot Study 1 points out that participation has no impact on the behavioural component of online CBE. Alghabarat et al. (2020) establish that participation is an antecedent of the behavioural component of CBE. The result in Study 3 that participation has an impact on the behavioural component of online CBE confirms similar previous studies by Alghabarat et al. (2020).

Hypothesis 4a:

H_{4a0}: Brand love has no effect on the cognitive component of online CBE.
H_{4aA}: Brand love has an effect on the cognitive component of online CBE.

Brand love has an impact on the cognitive component of online CBE (β= 0.53, T=4.73, p <0.001) with a medium effect size in Study 3. The bias corrected 95% confidence interval show that brand love has an impact on the cognitive component of online CBE, so the hypothesis is supported. In study 2, brand love has no impact on the cognitive component of online CBE. The pilot Study 1 illustrates that brand love has no impact on the cognitive component of online CBE. Not enough research has been done between brand love and the cognitive component of online CBE. Junaid et al. (2019) argue that brand love is the bridge between experience and customer engagement. This advances the notion that brand love and customer engagement are two distinctive constructions. According to Batra et al. (2012), brand love has a cognitive component. The results of Study 3 leads to the conclusion that brand love has an impact on the cognitive component of online CBE.

Hypothesis 4b:
H_{4b0}: Brand love has no effect on the emotional component of online CBE.
H_{4bA}: Brand love has an effect on the emotional component of online CBE.

The results of Study 3 indicate that brand love has an impact on the emotional component of online CBE (β=0.47, T=4.65, p < 0.001). The effect size is medium. The bias corrected 95% confidence interval reveals that brand love has an impact on the emotional component of online CBE so the hypothesis is supported. Brand love has an impact on the emotional component of online customer brand engagement in Study 2. The pilot Study 1 demonstrates that brand love has an impact on the emotional component of online CBE. Batra et al. (2012) point out that brand love is multidimensional and involves a positive emotional connection which could be why brand love influences the emotional component of online CBE. Study 3 results lead to the conclusion that brand love has an impact on the emotional component of online CBE.

Hypothesis 4c:
H_{4c0}: Brand love has no effect on the behavioural component of online CBE.
H_{4cA}: Brand love has an effect on the behavioural component of online CBE.

Study 3 shows that brand love has an impact on the behavioural component of online CBE (β=0.53, T=5.65, $p < 0.001$) with a medium effect size. The bias corrected 95% confidence interval demonstrates that brand love has an impact on the behavioural component of online CBE and therefore the hypothesis is supported. In Study 2, brand love has no impact on the behavioural component of online CBE. The pilot Study 1 unveils that brand love has an impact on the behavioural component of online CBE. According to Batra et al. (2012), the multidimensional concept of brand love will lead to passion driven behaviours. Carrol and Ahuvia (2006) define brand love as being likeness which customers could give to a brand or company. This likeness could potentially allow brand love to have an impact on the behavioural of online CBE. Using the results of Study 3, the conclusion is that brand love has an impact on the behavioural component of online CBE.

Table 28: Antecedents of online CBE study 3

	Hypothesis	β	T Statistics	P Values	Supported	Effect size	Size	Bias corrected 95% confidence interval		Supported
1	Brand Love -> Behavioural	0.53	5.65	0.00	Yes	0.28	Medium	0.34	0.71	Yes
2	Brand Love -> Cognitive	0.53	4.73	0.00	Yes	0.30	Medium	0.30	0.73	Yes
3	Brand Love -> Emotional	0.47	4.65	0.00	Yes	0.32	Medium	0.26	0.65	Yes
4	Brand equity -> Behavioural	0.20	2.13	0.03	Yes	0.04	Small	0.03	0.41	Yes
5	Brand equity -> Cognitive	0.15	1.48	0.14	No	0.02	Small	-0.03	0.38	No
6	Brand equity -> Emotional	0.30	3.95	0.00	Yes	0.12	Small	0.16	0.46	Yes
7	Involvement -> Behavioural	-0.02	0.30	0.77	No	0.00	Small	-0.11	0.10	No
8	Involvement -> Cognitive	0.12	1.67	0.10	No	0.03	Small	-0.004	0.28	No
9	Involvement -> Emotional	0.13	1.63	0.10	No	0.05	Small	0.01	0.33	Yes
10	Participation -> Behavioural	0.16	2.46	0.01	Yes	0.05	Small	0.04	0.30	Yes
11	Participation -> Cognitive	0.16	1.86	0.06	No	0.05	Small	0.01	0.34	Yes
12	Participation -> Emotional	0.10	2.01	0.045	Yes	0.03	Small	0.01	0.21	Yes

Table 28 present the results of the hypothesis tests of the antecedents of online CBE in Study 3. All the selected antecedents; involvement, brand equity, participation and brand love, have an impact on at least one component of online CBE. Involvement has no impact on the cognitive nor the behavioural components of online CBE. Involvement has an impact on the emotional component of online CBE. Brand equity has no impact on the cognitive component of online CBE. Brand equity has an impact on the emotional and

behavioural components of online CBE. Participation has an impact on the cognitive, emotional and behavioural components of online CBE. Brand love has an impact on the cognitive, emotional and behavioural components of online CBE.

According to Hollebeek et al. (2014), CBE is preceded by involvement and participation. Study 3 backs up Hollebeek et al.'s (2014) findings. The results of pilot Study 1 and Study 2 show that involvement has no effect on any aspect of online CBE. CBE is not broken down by Cambra-Fierro et al. (2021), who find that without breaking down CBE into its constituent parts, that brand equity impacts customer engagement mediated by customer satisfaction and company reputation. According to empirical studies by Alamoudi and Alharthi (2021), Islam and Rahman (2016a), as well as Junaid et al. (2019), brand love affects customer engagement. The implication of these results are that brand love is a distinct construct from online CBE. Brand managers and businesses could use involvement, brand equity, participation and brand love to manipulate and get the desired levels of online CBE.

6.8.2 Online CBE and relationship quality study 3

Hypothesis 5:
H_{50}: Cognitive component of online CBE has no effect relationship quality.
H_{5A}: Cognitive component of online CBE has an effect on relationship quality.

In Study 3, relationship quality is conceptualised as a higher order construct comprising trust, commitment and satisfaction. The cognitive component of online CBE has an impact on relationship quality (β=0.23, T2.67=, p =0.01) with a small effect size in study 3. The bias corrected 95% confidence interval demonstrates that the cognitive component of online CBE has an impact on relationship quality, supporting the hypothesis. In Study 2, the cognitive component of online CBE has an effect on relationship quality. The pilot Study 1 points out that the cognitive component of online CBE has no impact on relationship quality. Belief that the relationship is worth preserving is one aspect of relationship quality. Belief is something that customers experience as a cognitive process in their minds. The conclusion is that in Study 3, the cognitive component of online customer brand engagement has an impact on relationship quality.

Hypothesis 6:

H_{60}: Emotional component of online CBE has no effect on relationship quality.

H_{6A}: Emotional component of online CBE has an effect on relationship quality.

The emotional component of online CBE has an impact on relationship quality (β=0.51, T=3.69, $p < 0.001$) with a medium effect size in Study 3. In Study 3, the bias corrected 95% confidence interval reveals that the emotional component of online CBE has an impact on relationship quality and therefore the hypothesis is supported. In Study 2, the emotional component of online CBE has no effect on relationship quality. In the pilot Study 1, the emotional component of online CBE has an impact on relationship quality. Relationship quality is said to exist when a company carefully considers all of the terms of its business agreement with another company and that consideration arouses a good emotional feeling. This suggests that the emotional component of online brand engagement would have an effect on relationship quality in B2B relationships. The results of Study 3 are aligned to these assertions. The results of Study 3 establish that the emotional component of online CBE has an impact on relationship quality.

Hypothesis 7:

H_{70}: Behavioural component of online CBE has no effect on relationship quality.

H_{7A}: Behavioural component of online CBE has an effect on relationship quality.

The results of Study 3 illustrate that the behavioural component of online CBE has no impact on relationship quality (β=0.17, T=1.22, p =0.22). The bias corrected 95% confidence interval shows that the behavioural component of online CBE has no impact on relationship quality and therefore, the hypothesis is not supported. The behavioural component of online CBE has an impact on relationship quality in Study 2. The results of pilot Study 1 establishes that the behavioural component of online CBE has an impact on relationship quality. According to Harrigan et al. (2018), as well as Pansari and Kumar (2017), the importance which a customer shows in using a brand's website is an indication of the behavioural component of online CBE. This establishes a potential link between the behavioural component of online customer brand engagement and relationship quality which is against the results of Study 3 which indicate that the behavioural component of online customer brand engagement has no impact on relationship quality.

Table 29: Online CBE and relationship quality study 3

	Hypothesis	β	T Statistics	P Values	Supported	Effect size	Size	Bias corrected 95% confidence interval		Supported
1	Behavioural -> Relationship quality	0.17	1.22	0.22	No	0.05	Small	-0.08	0.42	No
2	Cognitive -> Relationship quality	0.23	2.67	0.01	Yes	0.05	Small	0.05	0.39	Yes
3	Emotional -> Relationship quality	0.51	3.69	0.00	Yes	0.24	Medium	0.23	0.76	Yes

Table 29 displays the results of the effect of online customer brand engagement on relationship quality in Study 3. Each component of online CBE, the cognitive, emotional and behavioural, are tested separately to indicate how they affect relationship quality in Study 3. Relationship quality is a reflective-reflective higher construct formed by trust, commitment and customer satisfaction. The cognitive and emotional components of online CBE have an impact on relationship quality. The behavioural component of online CBE has no impact on relationship quality.

Dessart (2017) conceptualised brand engagement as having cognitive, affection and activation components. Affection is similar to emotional, and activation is similar to behavioural. Dessart (2017) does not include customer satisfaction in their analysis of the consequences of brand engagement. Dessart (2017) demonstrates that trust and commitments are consequences of brand engagement. Tounit et al. (2020) resolve that CBE affects relationship quality. So et al. (2016) establish that customer engagement has an influence on relationship quality. The cognitive and emotional component of online CBE has an impact on relationship quality in Study 3 in agreement with previous studies. However, in Study 3, the behavioural component of online customer brand engagement has no impact on relationship quality in opposition to findings of previous similar studies.

6.8.3 Relationship quality and consequences of online CBE study 3

Hypothesis 8:

H_{80}: Relationship quality has no effect on loyalty.

H_{8A}: Relationship quality has an effect on loyalty.

In Study 3, relationship quality is conceptualised as a reflective-reflective higher order construct of trust, commitment and customer satisfaction. In Study 3, relationship quality

has an impact on loyalty (β=0.42, T=4.10, p <0.001) with a small effect size. The bias corrected 95% confidence interval shows that relationship quality has an impact on loyalty and the hypothesis is therefore supported. Study 2 demonstrates that relationship quality has an impact on loyalty. In the pilot Study 1, relationship quality has no impact on loyalty. Loyalty is the propensity to consistently purchase preferred goods or services (Liu et al., 2021; Oliver, 1999). The study by Ibrahim and Aljarah (2021) resolves that relationship quality affects brand loyalty for social media marketing efforts. Both Study 3 and Study 2 results agree with similar previous studies which indicate that relationship quality has an impact on loyalty.

Hypothesis 9:

H_{90}: Relationship quality has no effect on brand advocacy.

H_{9A}: Relationship quality has an effect on brand advocacy.

The results of Study 3 illustrate that relationship quality has an impact on brand advocacy (β=0.66, T=5.97, p <0.001) with a medium effect size. The bias corrected 95% confidence interval demonstrates that relationship quality has an impact on brand advocacy and the hypothesis is therefore supported. Relationship quality has an impact on brand advocacy in Study 2. In the pilot Study 1, relationship quality has an impact on brand advocacy. Brand advocacy could be characterised as eagerly using products or services, suggesting them to others, and being willing to overlook their flaws (Bhattcharya & Sen, 2003; Bilro et al., 2019; Klein & Dawar ,2004; Peloza, 2006). Badrinarayanan and Sierra (2018) illustrate that relationship quality has an impact on brand advocacy. All three results for Study 3, Study 2 and pilot Study 1 support the notion that relationship quality has an impact on brand advocacy, all agreeing with similar previous studies which resolve that relationship quality has an impact on brand advocacy.

Hypothesis 10:

H_{100}: Relationship quality has no effect on brand preference.

H_{10A}: Relationship quality has an effect on brand preference.

Relationship quality has an impact on brand preference (β=0.30, T=2.62, p = 0.01) in Study 3. The effect size is small. The bias corrected 95% confidence interval demonstrates

that relationship quality has an impact on brand preference and the hypothesis is therefore supported. Relationship quality has an impact on brand preference in Study 2. In the pilot Study 1, relationship quality has no impact on brand preference. When weighing the options and choosing a provider, brand preference means favouring one vendor over all others (Erkmen & Hancer, 2019; Hellier et al., 2003). According to Erkmen and Hancer (2019), for studies in the hospitality industry, brand preference is influenced by customer satisfaction mediated by trust. Both Study 3 and Study 2 support similar previous studies that relationship quality has an impact on brand preference.

Hypothesis 11:
H_{110}: Relationship quality has no effect has no effect on purchase intention.
H_{11A}: Relationship quality has an effect on purchase intention.

Relationship quality has an impact on purchase intention (β=0.33 T=2.31 p =0.02) with a small effect size in Study 3. The bias corrected 95% confidence interval point out that relationship quality has an impact on purchase intention and the hypothesis is therefore supported. Relationship quality has no impact on purchase intention in Study 2. In pilot Study 1, relationship quality has no impact on purchase intention.

It is possible to think of purchase intention as a five-dimensional construct made up of the following elements: willingness to pay, financial ability to spend, potential spending plans, repurchase options, and desire to spend (Blackwell et al., 2001; Dash et al., 2021; Shao et al, 2004). Using the social cognitive theory for online purchases in Croatia during the Covid-19 pandemic, Kursan-Milakovic (2020) concludes that purchase satisfaction has an effect on repurchase intention. Huber et al. (2010) demonstrate that brand relationship quality influences the repurchase intentions. The conclusion is that in Study 3, relationship quality has an influence on purchase intention, aligning to results of previous similar studies.

Table 30: Relationship quality, loyalty, brand advocacy, brand preference and purchase intention study 3

	Hypothesis	β	T Statistics	P Values	Supported	Effect size	Size	Bias corrected 95% confidence interval		Supported
1	Relationship quality -> Brand Advocacy	0.66	5.97	0.00	Yes	0.31	Medium	0.44	0.88	Yes
2	Relationship quality -> Brand Preference	0.30	2.62	0.01	Yes	0.06	Small	0.09	0.54	Yes
3	Relationship quality -> Loyalty	0.42	4.10	0.00	Yes	0.13	Small	0.24	0.65	Yes
4	Relationship quality -> Purchase Intention	0.33	2.31	0.02	Yes	0.03	Small	0.05	0.59	Yes

Table 30 captures the results of the effect of relationship quality on the consequences of online CBE which are loyalty, brand advocacy, brand preference and purchase intention, in Study 3. In study 3, relationship quality is conceptualised as a reflective-reflective higher order construct comprising trust, commitment and customer satisfaction. Relationship quality has an impact on all the conceptualised consequences of online CBE which are brand advocacy, brand preference, loyalty and purchase intention, in Study 3.

Ibrahim and Aljarah (2021) establish that relationship quality has an impact on brand loyalty for social media marketing activities. Badrinarayanan and Sierra (2018), using a higher order construct consisting of trust, commitment and satisfaction did an empirical study which demonstrates that relationship quality has an influence on brand advocacy. Erkmen and Hancer (2019) illustrate that in the hospitality industry, customer satisfaction mediated by trust has an impact on brand preference. Huber et al. (2010) demonstrate that brand relationship quality affects the repurchase intention. Brand managers can manipulate relationship marketing to effectively manage and determine the desired levels of loyalty, brand advocacy, brand preference and purchase intention.

6.8.4 Mediation analysis of relationship quality on online customer brand engagement and its consequences study 3

Table 31 captures specific indirect effects of relationship quality as it mediates the cognitive, emotional and behavioural components of online CBE with loyalty, brand advocacy, brand preference or purchase intention. The specific indirect effects are when the construct passes through a specific mediator (Hair et al., 2017).

Table 31: Specific indirect effects of relationship quality on online CBE and consequences study 3

	Hypothesis	β	T Statistics	P Values	Supported
1	Behavioural -> Relationship quality -> Brand Advocacy	0.11	1.14	0.26	No
2	Behavioural -> Relationship quality -> Brand Preference	0.05	1.02	0.31	No
3	Behavioural -> Relationship quality -> Loyalty	0.07	1.11	0.27	No
4	Behavioural -> Relationship quality -> Purchase Intention	0.06	1.01	0.32	No
9	Cognitive -> Relationship quality -> Brand Advocacy	0.15	2.47	0.01	Yes
10	Cognitive -> Relationship quality -> Brand Preference	0.07	1.90	0.06	No
11	Cognitive -> Relationship quality -> Loyalty	0.10	2.37	0.02	Yes
12	Cognitive -> Relationship quality -> Purchase Intention	0.08	1.69	0.09	No
5	Emotional -> Relationship quality -> Brand Advocacy	0.34	3.60	0.00	Yes
6	Emotional -> Relationship quality -> Brand Preference	0.16	2.44	0.02	Yes
7	Emotional -> Relationship quality -> Loyalty	0.22	2.61	0.01	Yes
8	Emotional -> Relationship quality -> Purchase Intention	0.17	2.11	0.04	Yes

In Study 3, relationship quality has specific indirect effect for the cognitive component of online CBE on loyalty, as well as brand advocacy. Relationship quality does not have a specific indirect effect for the cognitive component of online CBE on brand preference or purchase intention in Study 3. Relationship quality has a specific indirect effect for the emotional component of online CBE on loyalty, brand advocacy, brand preference or purchase intention. Relationship quality does not provide any specific indirect effect for the behavioural component of online CBE on loyalty, brand advocacy, brand preference on purchase intention.

Table 32 shows the total effect of the cognitive, emotional and behavioural components of online customer brand engagement on their consequences which are loyalty, brand advocacy, brand preference or purchase intention. The total effect is the summation of the direct effect and the indirect effects.

Table 32: Total effects of online CBE on its consequences study 3

	Hypothesis	β	T Statistics	P Values	Supported
1	Behavioural -> Brand Advocacy	0.15	1.00	0.32	No
2	Behavioural -> Brand Preference	0.40	2.85	0.00	Yes
3	Behavioural -> Loyalty	0.38	3.35	0.00	Yes
4	Behavioural -> Purchase Intention	-0.06	0.38	0.71	No
5	Cognitive -> Brand Advocacy	0.22	2.18	0.03	Yes
6	Cognitive -> Brand Preference	0.26	2.35	0.02	Yes
7	Cognitive -> Loyalty	0.27	2.59	0.01	Yes
8	Cognitive -> Purchase Intention	0.06	0.42	0.67	No
9	Emotional -> Brand Advocacy	0.39	2.67	0.01	Yes
10	Emotional -> Brand Preference	0.14	0.84	0.40	No
11	Emotional -> Loyalty	0.19	1.48	0.14	No
12	Emotional -> Purchase Intention	0.02	0.12	0.91	No

The cognitive component of online CBE has a significant total effect on loyalty, brand advocacy and brand preference. The cognitive component of online CBE does not have a significant total effect on purchase intention. The emotional component of online CBE does not have a significant total effect on loyalty, brand preference and purchase intention. The emotional component of online CBE has a significant total effect on brand advocacy. The behavioural component of online CBE has significant total effect on loyalty and brand preference. The behavioural component of online CBE does not have a significant total effect on brand advocacy and purchase intention.

Table 33 displays the direct effect of the cognitive, emotional and behavioural components of online CBE on their consequences which are loyalty, brand advocacy, brand preference and purchase intention for Study 3. There is a direct effect of behavioural component of online CBE on brand preference and loyalty. There is no direct effect of the behavioural component of online CBE on brand advocacy or purchase intention. There is no direct effect of the cognitive component of online CBE on loyalty, brand advocacy, brand preference or purchase intention. There is no direct effect of the emotional component of online CBE on loyalty, brand advocacy, brand preference or purchase intention.

Table 33: Direct effect of online CBE on its consequences study 3

	Hypothesis	β	T Statistics	P Values	Supported
1	Behavioural -> Brand Advocacy	0.04	0.42	0.68	No
2	Behavioural -> Brand Preference	0.35	2.80	0.01	Yes
3	Behavioural -> Loyalty	0.31	3.07	0.00	Yes
4	Behavioural -> Purchase Intention	-0.11	0.79	0.43	No
5	Cognitive -> Brand Advocacy	0.07	0.70	0.49	No
6	Cognitive -> Brand Preference	0.19	1.72	0.09	No
7	Cognitive -> Loyalty	0.18	1.74	0.08	No
8	Cognitive -> Purchase Intention	-0.01	0.08	0.94	No
9	Emotional -> Brand Advocacy	0.06	0.41	0.68	No
10	Emotional -> Brand Preference	-0.02	0.13	0.89	No
11	Emotional -> Loyalty	-0.02	0.17	0.86	No
12	Emotional -> Purchase Intention	-0.15	0.84	0.40	No

Table 34 shows the mediation analysis of relationship quality for the cognitive, emotional and behavioural components of online CBE with their consequences which comprise loyalty, brand advocacy, brand preference, and purchase intention, in Study 3.

Table 34: Mediation analysis study 3

	Hypothesis	Total effects significant	Direct effect significant	Specific indirect effect significant	Mediation
1	Behavioural -> Relationship quality -> Brand Advocacy	No	No	No	No effect no mediation
2	Behavioural -> Relationship quality -> Brand Preference	Yes	Yes	No	Direct effect only No mediation
3	Behavioural -> Relationship quality -> Loyalty	Yes	Yes	No	Direct effect only no mediation
4	Behavioural -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation
5	Cognitive -> Relationship quality -> Brand Advocacy	Yes	No	Yes	Full mediation
6	Cognitive -> Relationship quality -> Brand Preference	Yes	No	No	No mediation
7	Cognitive -> Relationship quality -> Loyalty	Yes	No	Yes	Full mediation
8	Cognitive -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation
9	Emotional -> Relationship quality -> Brand Advocacy	Yes	No	Yes	Full mediation
10	Emotional -> Relationship quality -> Brand Preference	No	No	Yes	Indirect effect only Full mediation
11	Emotional -> Relationship quality -> Loyalty	No	No	Yes	Indirect effect only Full mediation
12	Emotional -> Relationship quality -> Purchase Intention	No	No	Yes	Indirect effect only full mediation

Relationship quality does not provide any mediation between the cognitive component of online CBE and brand preference as well as between the cognitive component of online CBE and purchase intention. Relationship quality provides full mediation between the cognitive component of online CBE with brand advocacy or loyalty.

Relationship quality provides full mediation between the emotional component of online CBE and the consequences of online CBE, consisting of loyalty, brand advocacy, brand preference and purchase intention. The mediation between the emotional component of online CBE with brand preference, loyalty or purchase intention is full mediation with indirect effects only from relationship quality. Zhao et al. (2010) contend that it is possible to get only an indirect effect full mediation without total effects. Relationship quality does not provide any mediation between the behavioural component of online CBE and the selected consequences of online CBE which are brand advocacy, brand preference, loyalty and purchase intention.

The current research breaks down online CBE into its cognitive, behavioural, and emotional components. Relationship quality provides two mediating effects on CBE and its consequences in Study 3. It has full mediation or no mediation on the different components of online CBE with their consequences in Study 3. According to an empirical analysis by Adhikari and Panda (2019), relationship quality mediates CBE and brand loyalty.

6.9 Antecedents of online CBE findings study 3

In Study 3, involvement has no impact on the cognitive and behavioural components of online CBE. In Study 3, involvement has an impact on the emotional component of online CBE. Study 2 indicates that involvement has an impact on the cognitive and emotional components of online CBE. In Study 2, involvement has no impact on the behavioural component of online CBE. The pilot Study 1 results show that involvement has no impact on the behavioural, cognitive and emotional components of online CBE.

According to a study by Harrigan et al. (2018), brand engagement's cognitive, emotional, and behavioural aspects are all impacted by involvement. Alghabarat et al. (2020) study the

factors that influence CBE on Facebook and determine that involvement has an effect on both the cognitive and affectional aspects of engagement which is equivalent to the emotional component of CBE. Results from Alghabarat et al.'s (2020) study are comparable to those from Study 2 where involvement affects both the cognitive and emotional aspects of online CBE. The impact of involvement will be different on each component of online CBE. This exposes the need to break down online CBE into its components of cognitive, emotional and behavioural.

Algharat et al. (2020) show that involvement has no impact on the activation which is the behavioural component of CBE and Harrigan et al.'s (2018) study shows no impact. This supports the assertion made by Brodie et al. (2011) that the dimension of engagement varies. This could affect the impact of the antecedents of online CBE.

Study 3 shows that participation has an impact on the cognitive, emotional and behavioural components of online CBE. In Study 2, participation has no effect on the cognitive, emotional and behavioural components of online CBE. The pilot Study 1 results shows participation has no impact on the behavioural, cognitive and emotional component of online CBE. Participation is thought to be a prerequisite for customer engagement, according to Brodie et al. (2011). Samala and Katkam (2019) determine that participation, when mediated by involvement, has an effect on CBE. Study 3 demonstrates that participation could be an important antecedent of online CBE in B2B.

Brand equity is conceptualised as a higher order construct of brand awareness, uniqueness of brand associations and perceived quality. In Study 3, brand equity has no impact on the cognitive component of online CBE. Study 3 illustrates that brand equity has an impact on the emotional and behavioural components of online CBE. Study 2 resolves that brand equity has no effect on the emotional and cognitive components of online CBE. Study 2 establishes that brand equity has an impact on the behavioural component of online CBE. The pilot Study 1 concludes that brand equity has no impact on the behavioural, cognitive and emotional components of online CBE.

Customer engagement antecedents may be outcomes, and vice versa, according to Brodie et al. (2011), as well as Sashi (2012). Customer engagement in health services is influenced

by brand equity, as demonstrated by Cambra-Fierro et al. (2021), when mediated by customer satisfaction and corporate reputation. Cambra-Fierro et al. (2021) used brand equity as a higher order construct made up of brand awareness, brand image, perceived quality and brand loyalty in their study. Understanding the role of brand equity in engagement will assist in determining the messaging which companies in B2B need to develop to ensure online CBE with their customers.

Study 3 demonstrates that brand love has an impact on the cognitive, emotional and behavioural components of online CBE. In Study 2, brand love has no impact on the cognitive and behavioural component of online CBE. Brand love has as an impact on the emotional component of online CBE in Study 2. In the pilot Study 1, brand love has an effect on the emotional and behavioural components of online CBE. The pilot study 1 results indicate that brand love has no impact on the cognitive component of online CBE. These findings highlight the importance of segmenting online CBE into its constituent parts. An antecedent may have an effect on one component but not on the others. Brand managers will be able to choose which driver to manipulate in order to have a desired effect on whatever variable of online CBE they would need to influence.

6.10 Online CBE affecting relationship quality findings study 3

In study 3, the emotional and cognitive components of online CBE have an impact on relationship quality. Study 3 illustrates that the behavioural component of online CBE has no impact on relationship quality. In Study 2, the behavioural and cognitive components of online CBE has an impact on relationship quality. The emotional component of online CBE has no impact on relationship quality in Study 2. The results of the pilot Study 1 illustrates that the cognitive and behavioural components of online CBE have no impact on relationship quality. The emotional component of online CBE has an influence on relationship quality in pilot Study 1.

Five constructs, including identification, enthusiasm, attention, absorption and interaction, are used by So et al. (2016) to describe the psychological and behavioural components of customer engagement. So et al. (2016) show how customer engagement improves the relationship quality, which they conceptualised as having trust and satisfaction.

Relationship quality is viewed as a higher order construct in Study 3 consisting of trust, commitment and customer satisfaction. Customer engagement has an effect on brand relationship quality within a Facebook brand community, according to Touni et al. (2020). Relationship quality is driven by online customer brand involvement. The cognitive, emotional and behavioural components of online CBE could be used by the business as a strategic tool to manipulate the desired level of relationship quality with their customers.

6.11 Relationship quality affecting the consequences of online CBE findings study 3

Study 3 confirms that relationship quality has an impact on the selected consequences of online CBE which comprise loyalty, brand advocacy, brand preference and purchase intention. Relationship quality has an impact on brand advocacy, brand preference and loyalty in Study 2. Relationship quality has no impact on purchase intention. The pilot Study 1 results indicate that relationship quality has an impact on brand advocacy, and it has no impact on brand preference, loyalty or purchase intention.

Using the stimulus organism response model, Ibrahim and Aljarah (2021) investigate how social media marketing affects brand loyalty as mediated by relationship quality. They define relationship quality as consisting of commitment, satisfaction, and trust. According to Ibrahim and Aljarah (2021), relationship quality affects brand loyalty. Tseng (2021) demonstrates that the relationship quality affects loyalty.

In their study, Badrinarayanan and Sierra (2018) establish that relation quality affects brand advocacy. Brand satisfaction has an effect on brand advocacy for luxury brands, according to Shimul and Phau's (2018) research. Customer satisfaction has an impact on trust, and trust has an impact on brand preference, as shown by Erkmen and Hancer (2019). Using the theory of self-congruency, Huber et al. (2010) investigate how brand misconduct affects consumer brand relationship quality and repurchase intentions. Huber et al. (2010) demonstrate how brand relationship quality impacts repurchase intention.

The results of Study 3 are in agreement with previous similar studies that relationship quality has an impact on loyalty, brand advocacy, brand preference and purchase intention.

This enables brand managers and businesses to potentially use relationship quality as a strategic tool to influence the level of loyalty, brand advocacy, brand preference and purchase intention.

6.12 Relationship quality mediating the consequences of online CBE findings study 3

Study 3 indicates that relationship quality provides full mediation between the cognitive component of online CBE and brand advocacy. In Study 3, relationship quality has no mediation between the cognitive component of online CBE and brand preference or purchase intention. In Study 3, relationship quality provides an indirect effect only full mediation between cognitive component of online CBE and loyalty. It is possible to get full mediation with no total effects where only the indirect effects are significant (O'Rourke & Mackinnon, 2015; Zhao et al., 2010).

In Study 3, relationship quality provides full mediation between the emotional component of online CBE and brand advocacy, brand preference or loyalty. Relationship quality provides indirect only full mediation between the emotional component of online CBE and purchase intention. In Study 3, relationship quality does not mediate the behavioural component and brand advocacy, brand preference, loyalty or purchase intention.

Adhikari and Panda (2019) illustrate that relationship quality mediates consumer brand engagement and brand loyalty. The results of Study 3 indicate that relationship quality mediates the components of online CBE and its consequences. Relationship quality could be used as a means to manipulate the consequences of online CBE. The results show that there are instances where the cognitive, emotional and behavioural components of online CBE would have no impact on their consequences unless relationship quality is added as a mediator. According to O'Rourke and Mackinnon (2015), the inclusion of appropriate mediators identified by theory will amplify the results of outcomes. Brand managers and businesses needs to identify other mediators which could enhance the effect of the cognitive, emotional and behavioural components of online CBE on their consequences.

6.13 Conclusion

Study 3 demonstrates that involvement, brand equity, participation and brand love have an impact on at least one component of online CBE. The conceptualisation of online CBE as having cognitive, emotional and behavioural components enable a more in-depth study of the constructs as it enables each antecedent to impact on the different components of online CBE. The emotional and cognitive components of online CBE have an impact on relationship quality. The behavioural component of online CBE has no impact on relationship quality. The mediation analysis shows the role relationship quality plays in mediating the online CBE with its selected consequences. The mediation analysis also shows the important role mediators play in enhancing the effects of online CBE on their consequences. The next chapter presents the results of Study 4.

CHAPTER 7: STUDY 4

7.1 Introduction

Study 2 and Study 3 collected the data in South Africa whereas study 4 collected data from Kenya. The objective of Study 4 was to situate the study and collect data in another emerging market. Study 4 was commissioned to enable the collection of data in Kenya and the testing of the hypothesis using the Kenyan data. Emerging markets are different and collecting data in Kenya would enable a comparison of the South African and Kenyan emerging markets.

7.2 Research strategy study 4

A quantitative research strategy was used for this Study 4 using an online questionnaire on Qualtrics using respondents from Kenya. A similar questionnaire was used with only the difference in question 8 where all B2B suppliers specific to South Africa were removed. The rest of the questionnaire on Study 4 was the same as that of Study 2 and Study 3. A link generated on Qualtrics was distributed by Borderless Access to their Kenyan panel members who each have a unique identification number. A total of 217 fully completed responses were analysed using SmartPLS 4.

7.3 Research design and procedures study 4

A quantitative research design is used for this Study 4 using a Kenyan panel. An online questionnaire is loaded on Qualtrics. Borderless Access shared with its Kenya panel in the information and communication (ICT) industry a link generated on Qualtrics. Borderless Access does in-depth profiling to ensure the panel has enough quality to support B2B studies. The information collected per each panellist includes role at work, decision making authority, industry, company size and job titles.

To ensure that the Kenyan panel is of adequate quality, Borderless Access goes through a rigorous authentication process using a website or application recruitment process. The Kenyan panellists goes through a double opt-in process which conforms to the European Society for Opinions and Marketing Research (ESOMAR) guidelines. A mobile authentication provides triple opt-in by using a one-time password. The Kenyan panellists

are also verified using social media. Existing panellists are monitored using advanced tools and predictive algorithms.

Borderless Access has more than 60,000 panellists in Kenya who represent a variety of B2B sectors. IT, telecommunications, finance, manufacturing, business services, retail, education, health care, utilities, government, not-for-profit, hospitality, construction, and other industries are among them. The panellists who were chosen to serve on the Kenyan Borderless Access panel are in charge of, significantly contribute to, or have an impact on the business decisions. The panellists include professionals who play a variety of tasks at work, including business decision-makers, IT influencers, information workers, software developers, administrators, supervisors, human resources, distributors, and resellers.

The B2B businesses can be divided into three categories: small businesses with fewer than 100 employees, medium businesses with between 100 and 999 employees, and large businesses with more than 1000 employees. The panellists' positions range from director to manager to department head to administrator to analyst to account executive to financial advisor to controller to programmer to owner to supervisor to teacher to technical specialist to tradesperson to vice president to chief executive officer to chief operations officer to chief financial officer to board member.

7.4 Research population study 4

The population for this Study 4 is all decision makers in the ICT industry in B2B in Kenya. Borderless Access conducted a survey for this Study 4 from the 5th of August 2022 – 17th August 2022 within its Kenyan B2B panel. An anonymous Qualtrics link was distributed to potential respondents on the Borderless Access Kenya panel.

7.5 Research sampling strategy study 4

Purposive sampling was used to target ICT decision makers in Kenya. The survey was sent out to 1794 respondents. Each Kenyan respondent was allocated a unique identification number to be able to distinguish the responses from each panel member that responded to the survey. The unique identification number was appended to each response on Qualtrics. 217 responses remained after removing incomplete surveys.

7.6 Demographics characteristics study 4

Table 35: Demographics characteristics for study 4

Item	Description	Characteristic	Study 4
1	GENDER	MALE	118
		FEMALE	99
2	AGE	Below 24 years	35
		24-35 years	140
		36-45 years	36
		46-55 years	5
		Above 55 years	1
3	EDUCATIONAL PROFILE	No high school certificate	0
		High school certificate	17
		Diploma	54
		Degree	131
		Masters	15
		PhD	0
4	COMPANY SIZE	5 and less employees	42
		6-20 employees	32
		21-50 employees	26
		51-200 employees	52
		201-500	20
		501 and above	45
5	JOB FUNCTION	Engineer	17
		Accountant	19
		Sales	42
		Marketing	21
		Procurement	10
		Commercial	14
		Legal	9
		Specialist	14
		Manager	34
		Head of department	28
		Executive	9
		Total	217

Table 35 displays the demographics of respondents to the Kenya survey. Two hundred and seventeen responses remained after cleaning up the data and deleting incomplete surveys. This comprises 118 males and 99 females. The age group 24-35 years has the most respondents with 140 responses while seconded by the age group 36-45 years with 36 responses. This is closely followed by the below 24 years age group with 35 responses. The least number of responses is for the above 55 years age group with a single response. The second least responses is from the 46-54 age group with five responses.

The educational profile ranges from high school certificate to masters. One hundred and thirty-one respondents are degreed, 54 have diplomas, 17 respondents have high school certificates and 15 haves master's degrees. The company profile ranges from five employees and fewer, to 501 employees and above. The largest number of respondents are from companies with 501-200 employees with 52 respondents. This is followed by companies with 501 employees and above with 45 respondents, companies with five employees and fewer with 42 respondents and companies with 6-20 employees with 32 respondents. Companies with 21-50 employees provides 26 respondents. Companies with 201-500 employees have the least with 20 respondents.

Occupational characteristics of respondents include engineers, accountants, sales professionals, marketing practitioners, procurement experts, commercial people, legal people, specialists, managers, heads of department and executives. The highest frequency is sales with 42 respondents. This is followed by manager with 34 respondents, head of department with 28 respondents and marketing with 21 respondents. Accountant has 19 respondents, engineer has 17 respondents, commercial has 14 respondents, specialist has 14 respondents, procurement has 10 respondents, legal has nine respondents and executive has nine respondents.

7.7 Data analysis procedures study 4

The data obtained were examined using statistical analysis. There are 10 lower order constructs and two higher order constructs in the conceptual framework. Higher order constructs are operationalised at higher levels of abstraction using many layers of constructs, whereas lower order constructs are operationalized at lower levels of abstraction using a single layer of abstraction (Hair et al., 2017). The abstraction for higher

level constructs were limited to two layers in most research (Hair et al., 2017). Relationship quality and brand equity are operationalised as higher order constructs with two abstraction layers.

Higher order constructs are evaluated using the disjointed two-stage approach, repeated indicators, and hybrid approach. The lower order construct indicators are used repeatedly as indicators of the higher order constructs in the repeated indicators technique. Repeated indicators provide a potential problem since they could lead to falsely correlated residuals and make extra indicator variables outside of the lower order construct seem unimportant to the higher order construct.

To address issues with the repeated indications technique, the disjoint two stage approach was created. The disjoint two-stage technique uses latent variables for the lower order construct as an indicator variable for the higher order construct. The latent variables of the lower order constructs are measured in the first step of the analysis. The lower order constructs' latent variables are used as single item measure indicators for the higher order construct in the second stage. The repeated indicators approach drawbacks are eliminated by using this method.

The lower order construct indicator variables are divided into two groups in the hybrid approach, with one group measuring the lower order construct and the other measuring the higher order constructs. Implementing the hybrid approach is difficult when there are an odd number of lower order indicator variables, and it is unclear which criteria to use to assign variables to the higher order construct and lower order construct.

The reflective-reflective higher order constructs of brand equity and relationship quality developed in the model are analysed in this Study 4 using a disjoint two step approach. Due to its implementation challenges, the hybrid technique was not implemented. The disjointed two-stage strategy was adopted because it addresses the problem with the repeated indicators approach.

Initially, the measurement model with lower order constructs was examined first in stage 1 of the assessment. The outer loadings for all the lower order constructs are adequate

with a minimum value of 0.60 and a maximum value of 0.91 as shown in Appendix T. There is construct validity with Cronbach alpha values in the ranges 0.72-0.91 and composite reliability of 0.73-0.91 as illustrated in Appendix U. The constructs have convergent validity with all average variance extracted values in the range 0.52-0.81 as indicated in Appendix U. The model passes the Fornell-Larcker discriminant validity criterion as displayed in Appendix V. The HTMT is adequate but shows potential problems between purchase intention and brand advocacy with an HTMT value of 0.93 as captured in Appendix W.

Higher order constructs were incorporated into the model in stage 2 of the assessment. As reflective indicators for the high order construct brand equity, the latent variables of brand awareness, uniqueness of brand associations and perceived quality were used. As reflective indicators for the high order construct relationship quality, the latent variables of commitment, customer satisfaction and trust were used. The outer loadings on brand equity were brand awareness 0.80, perceived quality 0.88 and uniqueness of brand associations 0.87 as indicated in Appendix X. The outer loadings on relationship quality were commitment 0.89, customer satisfaction 0.76 and trust 0.87 as displayed in Appendix X.

Table 36 shows results of the evaluation for stage 2 of the analysis. The evaluation of model parameters which are Cronbach's alpha, composite reliability, average variance extracted, adjusted R-Square, inner VIF and Q-Square are displayed in Table 37. Brand equity has construct validity with Cronbach's alpha values of 0.81 and composite reliability of 0.82. Relationship quality has construct validity with a Cronbach's alpha of 0.79 and composite reliability of 0.82. Brand equity has convergent validity with average variance extracted of 0.72. Relationship quality has convergent validity with average variance extracted of 0.71.

Table 36: Evaluation of the model study 4 stage 2

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)	Inner VIF	R-square adjusted	Q-Square
Behavioural	0.80	0.80	0.72	1.90	0.50	0.47
Brand Advocacy	0.72	0.72	0.64	3.72	0.56	0.40
Brand Love	0.91	0.92	0.62	2.32		
Brand Preference	0.90	0.91	0.78	3.27	0.58	0.39
Brand equity	0.81	0.82	0.72	2.59		
Cognitive	0.82	0.82	0.74	2.37	0.49	0.46
Emotional	0.89	0.90	0.76	3.27	0.71	0.68
Involvement	0.90	0.90	0.52	1.39		
Loyalty	0.90	0.90	0.68	3.27	0.61	0.42
Participation	0.84	0.84	0.67	1.47		
Purchase Intention	0.85	0.86	0.69	3.27	0.57	0.36
Relationship quality	0.79	0.82	0.71	2.99	0.66	0.64

Brand equity and relationship quality pass the Fornell-Larcker discriminant validity test in this Study 4 stage 2 analysis, as shown in table 37.

Table 37: Fornell-Lacker criterion in study 4 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention	Relationship quality
Behavioural	**0.85**											
Brand Advocacy	0.53	**0.80**										
Brand Love	0.61	0.57	**0.79**									
Brand Preference	0.60	0.62	0.64	**0.88**								
Brand equity	0.61	0.62	0.73	0.54	**0.85**							
Cognitive	0.60	0.52	0.59	0.53	0.62	**0.86**						
Emotional	0.59	0.61	0.80	0.61	0.75	0.73	**0.87**					
Involvement	0.32	0.46	0.50	0.47	0.48	0.28	0.47	**0.72**				
Loyalty	0.55	0.68	0.65	0.80	0.58	0.54	0.63	0.44	**0.82**			
Participation	0.59	0.53	0.46	0.43	0.56	0.57	0.54	0.29	0.43	**0.82**		
Purchase Intention	-0.56	-0.73	-0.59	-0.74	-0.59	-0.53	-0.61	-0.49	-0.77	-0.41	**0.83**	
Relationship quality	0.65	0.75	0.77	0.75	0.77	0.65	0.78	0.58	0.78	0.51	-0.75	**0.84**

Table 38 shows the HTMT criterion in Study 4 stage 2 of the analysis. The HTMT test was adequate but showed potential problems between purchase intention with brand advocacy 0.93, relationship quality with brand advocacy 0.98, relationship quality and

brand equity 0.94, relationship quality with emotional 0.91, relationship quality with loyalty 0.92 and relationship quality with purchase intention 0.91. Henseler et al. (2015) recommend a cut off of less than 0.9 to establish discriminant validity using the HTMT criterion.

Table 38: HTMT criterion in study 4 stage 2

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand equity	Cognitive	Emotional	Involvement	Loyalty	Participation	Purchase Intention
Behavioural											
Brand Advocacy	0.70										
Brand Love	0.71	0.71									
Brand Preference	0.70	0.76	0.71								
Brand equity	0.75	0.80	0.84	0.61							
Cognitive	0.73	0.68	0.68	0.61	0.76						
Emotional	0.70	0.76	0.88	0.67	0.88	0.85					
Involvement	0.37	0.57	0.55	0.52	0.57	0.32	0.51				
Loyalty	0.65	0.85	0.72	0.88	0.67	0.63	0.70	0.47			
Participation	0.71	0.68	0.52	0.48	0.69	0.69	0.62	0.34	0.49		
Purchase Intention	0.67	0.93	0.67	0.85	0.70	0.63	0.70	0.55	0.88	0.48	
Relationship quality	0.79	0.98	0.90	0.88	0.94	0.78	0.91	0.72	0.92	0.61	0.91

Table 36 shows that the constructs have a moderate adjusted R-Square between 0.49-0.71. The structural model had predictive relevance with a Q-Square greater than zero for all constructs. There were no issues with multicollinearity as the inner VIF is less than 5 for all constructs.

7.8 Hypothesis testing results study 4: Antecedents and consequences of online CBE

Hypothesis testing was done with 217 respondents. The main research questions are:

1. What are the antecedents of online CBE?

2. Does online CBE affect relationship quality?

3. How does relationship quality affect the consequences of online CBE?

4. Does relationship quality mediate online CBE and the consequences of online CBE?

SmartPLS 4 is used as the statistical tool to test the hypothesis between the constructs.

7.8.1 Antecedents of online CBE study 4

Hypothesis 1a:

H_{1a0}: Involvement has no effect on the cognitive component of online CBE.

H_{1aA}: Involvement has an effect on the cognitive component of online CBE.

In Study 4, involvement has no impact on the cognitive component of online CBE (β=-0.09, T=1.32, p =0.19). The bias corrected 95% confidence interval indicates that involvement has no impact on the cognitive component of online CBE. Study 3 shows that involvement has no impact on the cognitive component of online CBE. Study 2 illustrates that involvement has an impact on the cognitive component of online CBE. The pilot Study 1 shows that involvement has no impact on the cognitive component of online CBE. Harrigan et al. (2018), together with Algharabat et al.'s (2020) empirical studies indicate that involvement is an antecedent of the cognitive component of CBE. The results of both Study 4 and Study 3 indicate that involvement has no impact on the cognitive component of online CBE even though results of previous similar studies seem to suggest involvement has an impact on the cognitive component of online CBE. Customer engagement is context dependent, and this could be because the context under which Study 4 and Study 3 are done is different to those contexts of previous similar studies. The conclusion is that in Study 4 involvement has no impact on the cognitive component of online CBE.

Hypothesis 1b:

H_{1b0}: Involvement has no effect on the emotional component of online CBE.

H_{1bA}: Involvement has an effect on the emotional component of online CBE.

In Study 4, involvement has no impact on the emotional component of online CBE (β=0.03, T=0.52, p =0.60). The bias corrected at 95% confidence interval shows that

involvement has no impact on the emotional component of online CBE. In Study 3, the hypothesis test based on the p-value indicates involvement has no impact on the emotional component of online CBE. However, the analysis of the 95% bias corrected confidence interval suggests that involvement has an impact on the emotional component of online CBE with a small effect size. Study 2 indicates that involvement has an impact on the emotional component of online CBE. The results of the pilot Study 1 unveils that involvement has no impact on the emotional component of online CBE. Harrigan et al. (2018) and Algharabat et al. (2020) determine that involvement is an antecedent of the emotional component of CBE. The results of Study 4 show that involvement has no impact on the emotional component of online CBE while those of previous similar studies, Study 3 and Study 2, show that involvement has an impact on the cognitive component of online CBE. The difference could be that Study 4 was carried out in an emerging market of Kenya while Study 3 and Study 2 were conducted in the emerging market of South Africa. The results of Study 4 demonstrate that involvement has no impact on the cognitive component of online CBE.

Hypothesis 1c:

H_{1c0}: Involvement has no effect on the behavioural component of online CBE.

H_{1cA}: Involvement has an effect on the behavioural component of online CBE.

The hypothesis that involvement has an impact on the behavioural component of online CBE is not supported in Study 4 (β=-0.05 T=0.78, p =0.43). The bias corrected 95% confidence interval illustrates that involvement has no impact on the behavioural component of online CBE. Study 3, Study 2 and pilot Study 1 show that involvement has no impact on the behavioural component of online CBE. According to a study by Harrigan et al. (2018), the behavioural component of online CBE is impacted by involvement. Involvement has no effect on the behavioural component of online CBE, according to research done by Alghabarat et al. in 2020. Several research articles have produced varying conclusions about the influence of involvement on the behavioural component of online CBE. Study 4 is aligned to the findings by Alghabart et al. (2020) which indicate that involvement has no influence on the cognitive component of online CBE.

Hypothesis 2a:

H_{2a0}: Brand equity has no effect on the cognitive component of online CBE.

H_{2aA}: Brand equity has an effect on the cognitive component of online CBE.

The results of Study 4 show that brand equity has an impact on the cognitive component of online CBE (β=0.28 T=2.65, p =0.01) with a small effect size. The bias corrected 95% confidence interval indicates that brand equity has an impact on the cognitive component of online CBE. In Study 3, Study 2 and pilot Study 1, brand equity has no impact on the cognitive component of online CBE. The influence of brand equity on the cognitive component of online CBE has not been fully examined. The results of Study 4 from the Kenyan data resolve that brand equity has an impact on the cognitive component of online CBE while results of the South Africa studies, Study 3, Study 2 and pilot Study 1, show that brand equity has no impact on the cognitive component of online CBE. The difference could be because South Africa and Kenya are two different emerging markets. The results of Study 4 establish that brand equity has an influence on the cognitive component of online CBE. The conclusion is that brand equity has an impact on the cognitive component of online CBE in Study 4.

Hypothesis 2b:

H_{2b0}: Brand equity has no effect on the emotional component of online CBE.

H_{2bA}: Brand equity has an effect on the emotional component of online CBE.

The results of Study 4 determine that brand equity has an impact on the emotional component of online CBE (β= 0.28 T=2.45, p=0.01) with a small effect size. In Study 3, brand equity has an impact on the emotional component of online CBE. Study 2 and the pilot Study 1 reveal that brand equity has no effect on the emotional component of online CBE. Perception, which has an emotional component, is part of how the researcher conceptualises brand equity. Consequently, it would be reasonable to assume that brand equity would have an effect on the emotional component of online CBE. Both Study 4 and Study 3 are in agreement. The conclusion is that in Study 4, brand equity has an effect of the emotional component of online CBE.

Hypothesis 2c:

H_{2c0}: Brand equity has no effect on the behavioural component of online CBE.
H_{2cA}: Brand equity has an effect on the behavioural component of online CBE.

Study 4 establishes that brand equity has an impact on the behavioural component of online CBE (β=0.20 T=2.73, p =0.01) with a small effect. The bias corrected 95% confidence interval indicates that brand equity has an impact on the behavioural component of online CBE. Study 3 and Study 2 determine that brand equity has an impact on the behavioural component of online CBE. The pilot Study 1 demonstrates that brand equity has no impact on the behavioural component of online CBE.

Brand equity, in the opinion of Keller (1993), happens when a customer is aware of a brand and forms solid brand associations that result in behaviours that support the brand. The results of Study 4, Study 3 and Study 2 support Keller's (1993) contention that brand equity influences the behavioural component of online CBE. Study 4 establishes that brand equity has an effect on the behavioural component of online CBE.

Hypothesis 3a:
H_{3a0}: Participation has no effect on the cognitive component of online CBE.
H_{3aA}: Participation has an effect on the cognitive component of online CBE.

Study 4 results indicate that participation has an impact on the cognitive component of online CBE (β=0.31 T=3.92, p < 0.001) with a small effect size. The bias corrected 95% confidence interval indicates that in Study 4, participation has an impact on the cognitive component of online CBE. Study 3 p-value analysis shows that participation has no impact on the cognitive component of online CBE. The bias corrected 95% confidence interval in Study 3 demonstrates that participation has an impact on the cognitive component of online CBE with a small effect size. Study 2 and pilot Study 1 reveal that participation has no effect on the cognitive component of online CBE. Participation is an antecedent to the cognitive component of online CBE, according to an empirical study by Alghabarat et al. (2020). Both Study 4 and Study 3 demonstrate that participation has an effect on the cognitive component of online CBE supporting results of previous studies. Study 4 confirms that participation has an impact on the cognitive component of online CBE.

Hypothesis 3b:

H_{3b0}: Participation has no effect on the emotional component of online CBE.

H_{3bA}: Participation has an effect on the emotional component of online CBE.

In Study 4, participation has an impact on the emotional component of online CBE (β=0.14 T=2.59, p =0.01) with a small effect. The bias corrected 95% confidence interval illustrates that participation has an impact on the emotional component of online CBE customer brand engagement. Study 3 indicates that participation has an impact on the emotional component of online CBE. Study 2 and pilot Study 1 illustrate that participation has no effect on the emotional component of online CBE. According to Alghabarat et al. (2020), participation is an antecedent of the emotional component of CBE. Study 4 and Study 3 demonstrate that participation affects the emotional component of online CBE. The results of Study 4 determine that participation has an influence on the emotional component of online CBE, aligning to similar previous studies.

Hypothesis 3c:

H_{3c0}: Participation has no effect on the behavioural component of online CBE.

H_{3cA}: Participation has an effect on the behavioural component of online CBE.

The Study 4 results indicate that participation has an impact on the behavioural component of online CBE with a large effect size. The bias corrected 95% confidence interval illustrates that participation has an impact on the behavioural component of online CBE. In Study 3, participation has an impact on the behavioural component of online CBE with a small effect size. Study 2 and the pilot Study 1 point out that participation has no impact on the behavioural component of online CBE. According to Alghabarat et al.'s (2020) empirical study, participation is an antecedent of the behavioural component of CBE. Both Study 4 and Study 3 are in agreement that participation has an influence on the behavioural component of online CBE. Taking into account previous similar studies and Study 4, this researcher concludes that participation has an impact on the behavioural component of online CBE.

Hypothesis 4a:

H_{4a0}: Brand love has no effect on the cognitive component of online CBE.

H_{4aA}: Brand love has an effect on the cognitive component of online CBE.

Study 4 illustrates that brand love has an impact on the cognitive component of online CBE (β= 0.30, T=2.53, p =0.01) with a small effect size. The bias corrected 95% confidence interval shows that brand love has an impact on the cognitive component of online CBE. In Study 3, brand love has an impact on the cognitive component of online CBE. Study 2 and the pilot Study 1 indicate that brand love has no impact on the cognitive component of online CBE. According to Junaid et al. (2019), brand love serves as a link between customer engagement and experience, promoting the idea that brand love and consumer engagement are two unique constructs. Batra et al. (2012) assert that brand love has a cognitive component. Brand love has an impact on the cognitive aspect of online customer brand engagement, as demonstrated by Study 4 and Study 3. The findings of Study 4 determine that brand love affects the cognitive component of online CBE .

Hypothesis 4b:

H_{4b0}: Brand love has no effect on the emotional component of online CBE.

H_{4bA}: Brand love has an effect on the emotional component of online CBE.

Study 4 shows that brand love has an impact on the emotional component of online CBE (β=0.52, T=4.81, p < 0.001) with a large effect size. The bias corrected 95% confidence interval denotes that brand love has an impact on the emotional component of online CBE. The results of Study 3, Study 2 and pilot Study 1 illustrate that brand love has an impact on the emotional component of online CBE. Brand love may affect the emotional component of online CBE because, as Batra et al. (2012) note, it is multidimensional and involves a positive emotional connection. Brand love affects the emotional component of online CBE, according to the findings of Studies 4, Study 3, Study 2, and pilot Study 1. The Study 4's findings establish that brand love has an influence on the emotional component of online CBE.

Hypothesis 4c:

H_{4c0}: Brand love has no effect on the behavioural component of online CBE.

H_{4cA}: Brand love has an effect on the behavioural component of online CBE.

In Study 4, brand love has an impact on the behavioural component of online CBE (β=0.33, T=3.47, $p < 0.001$) with a small impact effect size. The bias corrected 95% confidence interval indicates that brand love has an impact on the behavioural component of online CBE. Study 3 resolves that brand love has an impact on the behavioural component of online CBE. In Study 2, brand love has no impact on the behavioural component of online CBE. The pilot Study 1 illustrates that brand love has an impact on the behavioural component of online CBE. The multifaceted concept of brand love, according to Batra et al. (2012), includes behaviours that are motivated by passion. Brand love is defined by Carrol and Ahuvia (2006) as the likeness that consumers may have for a product or business. This likeness may lead brand love to influence the behavioural component of online CBE. Study 4 and Study 3 come to the conclusion that brand love affects the behavioural component of online CBE. According to the findings of Study 4, brand love influences the behavioural component of online CBE.

Table 39: Antecedents of online CBE study 4

		β	T statistics	P values	Supported	Effect size	Size	Bias corrected 95% confidence interval (2.5%-97.5%)		Supported
1	Brand Love -> Behavioural	0.33	3.47	0.00	Yes	0.09	Small	0.14	0.51	Yes
2	Brand Love -> Cognitive	0.30	2.53	0.01	Yes	0.08	Small	0.06	0.52	Yes
3	Brand Love -> Emotional	0.52	4.81	0.00	Yes	0.40	Large	0.32	0.73	Yes
4	Brand equity -> Behavioural	0.20	2.73	0.01	Yes	0.03	Small	0.06	0.34	Yes
5	Brand equity -> Cognitive	0.28	2.65	0.01	Yes	0.06	Small	0.09	0.50	Yes
6	Brand equity -> Emotional	0.28	2.45	0.01	Yes	0.10	Small	0.05	0.48	Yes
7	Involvement -> Behavioural	-0.05	0.78	0.43	No	0.00	Small	-0.17	0.06	No
8	Involvement -> Cognitive	-0.09	1.32	0.19	No	0.01	Small	-0.22	0.05	No
9	Involvement -> Emotional	0.03	0.52	0.60	No	0.00	Small	-0.08	0.15	No
10	Participation -> Behavioural	0.34	4.89	0.00	Yes	0.16	Medium	0.20	0.47	Yes
11	Participation -> Cognitive	0.31	3.92	0.00	Yes	0.13	Small	0.16	0.47	Yes
12	Participation -> Emotional	0.14	2.59	0.01	Yes	0.05	Small	0.04	0.25	Yes

Table 39 shows the results of the hypothesis tests of the antecedents of online CBE. In Study 4, involvement has no impact on all the three components of online CBE which comprise the cognitive, emotional and behavioural. Brand love, brand equity and participation has an impact on all the components of online CBE.

Hollebeek et al. (2014) suggest that involvement and participation are antecedents of CBE. Study 4 and Study 3 support Hollebeek et al. (2014) with participation having in an impact on the cognitive, emotional and behavioural components of online CBE. Study 4 opposes Hollebeek et al. (2014) with involvement having no influence on any of the components of online CBE. In Study 3, involvement has an effect on the emotional component of online CBE. Study 2 and pilot Study 1 suggests that participation has no impact on any of the components of online CBE.

Cambra-Fierro et al. (2021) do not break down CBE into its components and find that brand equity, while mediated by satisfaction and corporate reputation, impact customer engagement. Islam and Rahman (2016a), Junaid et al. (2019) as well as Alamoudi and Alharthi's (2021) empirical studies confirm that brand love has an impact on customer engagement. The implication of these results are that involvement, brand equity, participation and brand love could be used by the businesses and brand managers as strategic tools to influence online CBE. Brand love emerged as a separate construct to that of online CBE.

7.8.2 Online CBE and relationship quality study 4

Hypothesis 5:
H_{50}: Cognitive component of online CBE has no effect relationship quality.
H_{5A}: Cognitive component of online CBE has an effect on relationship quality.

Relationship quality is conceptualised as a higher order construct comprising trust, commitment and satisfaction. In Study 4, the cognitive component of online CBE has no impact on relationship quality (β=0.08, T=1.06, p =0.29) with a small effect size. The bias corrected 95% confidence interval passes through zero so the cognitive component of online CBE has no impact on relationship quality. Study 3 and Study 2 unveil that the cognitive component of online CBE has an impact on relationship quality. The pilot Study

1 points out that the cognitive component of online CBE has no impact on relationship quality.

One facet of relationship quality is the sense that a connection is worth maintaining. Customers mentally go through a cognitive process when they believe something is worth maintaining. Study 3 and Study 2 are in agreement with this observation, and they illustrate that the cognitive component of online CBE has an influence on relationship quality. Study 4 has an opposite result indicating that the cognitive component of online CBE has no effect on relationship quality. The difference in results could potentially be because Study 4 is done using Kenyan data while Study 3 and Study 2 are done using the South African data. The conclusion is that the cognitive component of online CBE has no effect on relationship quality in Study 4.

Hypothesis 6:

H_{60}: Emotional of component online CBE has no effect on relationship quality.

H_{6A}: Emotional of component online CBE has an effect on relationship quality.

The emotional component of online CBE has an impact on relationship quality in Study 4 (β=0.56, T=8.67, p <0.001) with a large effect size. The bias corrected 95% confidence interval show that the emotional component of online CBE has an impact on relationship quality. In Study 3, the emotional component of online CBE has an impact on relationship quality. In Study 2, the emotional component of online CBE has no effect on relationship quality. In the pilot Study 1, the emotional component of online customer brand engagement has an impact on relationship quality. When a business carefully considers the terms of its business agreement with another business and that consideration elicits a positive emotional response, it is said there is relationship quality. This implies that the emotional component of online CBE would have an impact on relationship quality in B2B. The findings from Study 4 and Study 3 support this claim. The findings of Study 4 show that the emotional component of online CBE affects relationship quality.

Hypothesis 7:

H_{70}: Behavioural component of online CBE has no effect on relationship quality.

H_{7A}: Behavioural component of online CBE has an effect on relationship quality.

In Study 4, the behavioural component of online CBE has an impact on relationship quality (β=0.27, T=4.17, p <0.001) with a small effect size. The bias corrected 95% confidence interval reveals that the behavioural component of online CBE has an impact on relationship quality. Study 3 illustrates that the behavioural component of online CBE has no impact on relationship quality. The results of Study 2 show that the behavioural component of online CBE has an impact on relationship quality. Pilot Study 1 shows that the behavioural component of online CBE has no impact on relationship quality.

The importance that a consumer places in utilising a company's website, according to Harrigan et al. (2018) together with Pansari and Kumar (2017), is a sign of the behavioural component of online CBE. This demonstrates a possible connection between the level of relationship quality and the behavioural component of online CBE. The findings of Study 4 and Study 2 corroborate this assertion by showing that the behavioural component of online CBE affects relationship quality. Study 3 and pilot Study 1's findings show that the behavioural component of online CBE has no effect on relationship quality, opposing this opinion. Study 4 determines that the behavioural component of online CBE has an impact on relationship quality.

Table 40: Online CBE and relationship quality study 4

		β	T statistics	P values	Supported	Effect size	Size	Bias corrected 95% confidence interval (2.5%-97.5%)		Supported
1	Behavioural -> Relationship quality	0.27	4.17	0.00	Yes	0.13	Small	0.14	0.40	Yes
2	Cognitive -> Relationship quality	0.08	1.06	0.29	No	0.01	Small	-0.08	0.22	No
3	Emotional -> Relationship quality	0.56	8.37	0.00	Yes	0.41	Large	0.43	0.69	Yes

Table 40 shows the results of the hypothesis tests between the cognitive, emotional and behavioural components of online CBE on relationship quality in Study 4. In Study 4, the cognitive component of online CBE has no impact on relationship quality. The results of Study 3 and Study 2 are different with the cognitive component of online customer brand engagement having an impact on relationship quality in Study 2. The pilot Study 1 had a similar result to Study 4 where the cognitive component of online customer brand engagement has no impact on relationship quality.

Study 4, Study 3 and the pilot Study 1 show that the emotional component of online CBE has an impact on relationship quality. The results of Study 2 indicates that the emotional of online customer brand engagement has no impact on relationship quality. Study 4 and Study 2 shows that the behavioural component of online CBE has an impact on relationship quality. Study 3 and Study 1 illustrate that the behavioural component of online CBE has no impact on relationship quality.

According to Dessart (2017), brand engagement consists of cognitive, affectionate, and activating elements. Similar to emotions is affection and behavioural is similar to activation. Dessart (2017) shows that brand engagement has an impact on commitment and trust. According to Tounit et al. (2020), relationship quality is impacted by CBE. So, et al. (2016) demonstrate that customer engagement affects relationship quality.

Study 4 illustrates that the emotional and behavioural components of online CBE have an effect on relationship quality but with the cognitive component of online CBE having no effect. Study 3 shows the cognitive and emotional components having an effect with the behavioural component having no effect. In Study 2, the emotional component of online CBE has no effect with the cognitive and behavioural components of online CBE having an effect. In pilot Study 1, this emotional component of online CBE influences relationship quality with the cognitive and behavioural components of online CBE have no effect on relationship quality. The implication of these findings are that businesses and brand managers could use online CBE to vary the relationship quality with their customers. However, the businesses would need first to determine which component of online CBE has an effect on relationship quality within their contexts.

7.8.3 Relationship quality and consequences of online CBE study 4

Hypothesis 8:
H_{80}: Relationship quality has no effect on loyalty.
H_{8A}: Relationship quality has an effect on loyalty.

Relationship quality is conceptualised as a reflective-reflective higher order construct of trust, commitment and customer satisfaction The results of Study 4 illustrate that

relationship quality has an effect on loyalty (β=0.71, T=7.99, p <0.001) with a large effect size. The bias corrected 95% confidence interval shows that relationship quality has an effect on loyalty. In Study 3 and Study 2, relationship quality has an impact on loyalty. In the pilot Study 1, relationship quality has no impact on loyalty.

The tendency to consistently purchase favourite goods or services is called loyalty (Liu et al., 2021; Oliver, 1999). According to Ibrahim and Aljarah (2023), relationship quality affects brand loyalty in social media marketing campaigns. The findings of Studies 4, Study 3, and Study 2 support findings from similar earlier studies indicating loyalty is influenced by the quality of relationships. Study 4 concludes that relationship quality has an effect on loyalty.

Hypothesis 9:
H_{90}: Relationship quality has no effect on brand advocacy.
H_{9A}: Relationship quality has an effect on brand advocacy.

In study 4, relationship quality has an impact on brand advocacy (β=0.67, T=6.81, p <0.001) with a medium effect size. The bias corrected 95% confidence interval shows that relationship quality has an impact on brand advocacy. The results of Study 3, Study 2 and the pilot Study 1 illustrate that relationship quality has an impact on brand advocacy.
Using goods or services enthusiastically, recommending them to others, and being prepared to accept their defects could all be considered forms of brand advocacy (Bhattcharya & Sen, 2003; Bilro et al., 2019; Klein & Dawar, 2004; Peloza, 2006). Badrinarayanan and Sierra (2018) demonstrate that relationship quality has an impact on brand advocacy. In line with related earlier studies that also found that relationship quality had an effect on brand advocacy, Study 4, Study 3, Study 2 and Study 1 support the notion that relationship quality influences brand advocacy. The results of Study 4 determine that relationship quality has an influence on brand advocacy.

Hypothesis 10:
H_{100}: Relationship quality has no effect on brand preference.
H_{10A}: Relationship quality has an effect on brand preference.

The hypothesis test in Study 4 demonstrates that relationship quality has an effect on brand preference (β=0.61, T=5.57, $p < 0.001$) with a medium effect size. The bias corrected at 95% confidence interval indicates that relationship quality has an impact on brand preference. In Study 3 and Study 2 relationship quality has an impact on brand preference. In the pilot Study 1 relationship quality has no impact on brand preference. Erkmen and Hancer (2019) reveal that in the hospitality industry, customer satisfaction, mediated by trust, has an impact on brand preference.

Brand preference refers to favouring one vendor over all others when assessing the possibilities and selecting a supplier (Erkmen & Hancer, 2019; Hellier et al., 2003). Erkmen and Hancer's (2019) empirical study in the hospitality industry assert that brand preference is driven by client satisfaction mediated by trust. Study 3 and Study 2 results illustrate that relationship quality affects brand preference. Pilot Study 1 shows that relationship quality has no effect on brand preference. In agreement with similar earlier studies, Study 4, Study 3 and Study 2 confirm that relationship quality has an effect on brand preference. The results of Study 4 determine that relationship quality has an impact on brand preference.

Hypothesis 11:
H_{110}: Relationship quality has no effect has no effect on purchase intention.
H_{11A}: Relationship quality has an effect on purchase intention.

The results of Study 4 spells out that relationship quality has an impact on purchase intention. The bias corrected 95% confidence interval illustrates that relationship quality has an impact on purchase intention. Study 3 reveals that relationship quality has an impact on purchase intention. Relationship quality has no impact on purchase intention in Study 2 and in pilot Study 1.

Purchase intention can be conceptualised as a five-dimensional construct made up of the following components: willingness to pay, financial capacity to spend, probable spending plans, repurchase options, and desire to spend (Blackwell et al., 2001; Dashing et al., 2021; Shao et al., 2004). Kursan-Milakovic (2020) concludes that purchase satisfaction has an impact on repurchase intention using data from online transactions made in Croatia during the Covid-19 pandemic and the social cognitive theory.

Brand relationship quality affects repurchase intentions, as shown by Huber et al. (2010). Study 4 and Study 3, in support of previous similar studies, show that relationship quality has an impact on purchase intention while Study 2 and pilot Study 1 show that relationship quality has no impact on purchase intention. The result of Study 4 determines that relationship quality has an effect on purchase intention.

Table 41: Relationship quality, loyalty, brand advocacy, brand preference and purchase intention study 4

		β	T statistics	P values	Supported	Effect size	Size	Bias corrected 95% confidence interval (2.5%-97.5%)		Supported
1	Relationship quality -> Brand Advocacy	0.67	6.81	0.00	Yes	0.34	Medium	0.48	0.86	Yes
2	Relationship quality -> Brand Preference	0.61	5.57	0.00	Yes	0.30	Medium	0.40	0.83	Yes
3	Relationship quality -> Loyalty	0.71	7.99	0.00	Yes	0.44	Large	0.53	0.87	Yes
4	Relationship quality -> Purchase Intention	-0.64	6.11	0.00	Yes	0.32	Medium	-0.86	-0.45	Yes

Table 41 captures the Study 4 results of the effect of relationship quality on the consequences of online CBE which consist of loyalty, brand advocacy, brand preference and purchase intention. The relationship quality is conceptualised as reflective-reflective higher order construct of trust, commitment and customer satisfaction. The results of Study 4 and Study 3 demonstrate that relationship quality has an impact on all the conceptualised consequences of online CBE which comprise brand advocacy, brand preference, loyalty and purchase intention. In Study 2, relationship quality has an effect on loyalty, brand advocacy and brand preference with no effect on purchase intention. In the pilot Study 1, relationship quality has no impact on loyalty, brand preference and purchase intention and it has an impact on brand advocacy.

Ibrahim and Aljarah (2021) demonstrate that relationship quality affects brand loyalty in social media marketing activities. Through an empirical study, Badrinarayanan and Sierra (2018) show that relationship quality affects brand advocacy. They achieved this by using a higher order construct that was generated from trust, commitment, and satisfaction.

Customer satisfaction, as mediated by trust, affects brand preference in the hospitality business, as shown by Erkmen and Hancer (2019). Brand relationship quality is shown by Huber et al. (2010) to influence purchase intention. The implication of these result are that businesses and brand managers could manipulate relationship quality to set the desired levels of brand advocacy, brand preference, loyalty and purchase intention.

7.8.4 Mediation analysis of relationship quality on online CBE and its consequences study 4

Table 42 captures the Study 4 specific indirect effects of relationship quality between cognitive, emotional and behavioural components of online CEB with loyalty brand advocacy, brand preference or purchase intention. Relationship quality has no specific indirect effects for the cognitive component of online CBE with loyalty, brand preference brand advocacy or purchase intention. Relationship quality has specific indirect effects for the emotional component of online CBE with loyalty, brand preference, brand advocacy and purchase intention. Relationship quality has specific indirect effects for the behavioural component of online CBE with loyalty, brand advocacy, brand preference and purchase intention.

Table 42: Specific indirect effects of relationship quality on online CBE and consequences study 4

	Hypothesis	β	T statistics	P values	95 % bias corrected confidence interval (2.5% - 97.5%)		Supported
1	Behavioural -> Relationship quality -> Brand Advocacy	0.18	3.33	0.00	0.09	0.31	Yes
2	Behavioural -> Relationship quality -> Loyalty	0.19	3.62	0.00	0.10	0.31	Yes
3	Behavioural -> Relationship quality -> Brand Preference	0.16	3.17	0.00	0.08	0.29	Yes
4	Behavioural -> Relationship quality -> Purchase Intention	-0.17	3.38	0.00	-0.30	-0.09	Yes
5	Cognitive -> Relationship quality -> Brand Advocacy	0.05	1.05	0.29	-0.05	0.15	No
6	Cognitive -> Relationship quality -> Brand Preference	0.05	1.07	0.28	-0.04	0.14	No
7	Cognitive -> Relationship quality -> Loyalty	0.06	1.08	0.28	-0.05	0.15	No
8	Cognitive -> Relationship quality -> Purchase Intention	-0.05	1.07	0.29	-0.15	0.05	No
9	Emotional -> Relationship quality -> Brand Advocacy	0.38	5.20	0.00	0.26	0.54	Yes
10	Emotional -> Relationship quality -> Brand Preference	0.34	4.55	0.00	0.22	0.52	Yes
11	Emotional -> Relationship quality -> Loyalty	0.40	5.47	0.00	0.27	0.57	Yes
12	Emotional -> Relationship quality -> Purchase Intention	-0.36	4.56	0.00	-0.55	-0.23	Yes

Table 43 captures the Study 4 total effects of the components of online CBE on their consequences. The total effect is the sum of the direct effect and the indirect effects.

Table 43: Total effects of online CBE on its consequences study 4

	Hypotheis - total effects	β	T statistics	P values	Bias corrected 95 % confidence interval (2.5% - 97.5%)		Supported
1	Behavioural -> Brand Advocacy	0.24	2.79	0.01	0.08	0.42	Yes
2	Behavioural -> Brand Preference	0.36	4.08	0.00	0.18	0.53	Yes
3	Behavioural -> Loyalty	0.26	3.08	0.00	0.09	0.42	Yes
4	Behavioural -> Purchase Intention	-0.28	3.26	0.00	-0.45	-0.11	Yes
5	Cognitive -> Brand Advocacy	0.08	0.91	0.37	-0.11	0.22	No
6	Cognitive -> Brand Preference	0.06	0.59	0.56	-0.15	0.25	No
7	Cognitive -> Loyalty	0.08	0.86	0.39	-0.12	0.26	No
8	Cognitive -> Purchase Intention	-0.07	0.69	0.49	-0.25	0.15	No
9	Emotional -> Brand Advocacy	0.41	4.17	0.00	0.19	0.58	Yes
10	Emotional -> Brand Preference	0.35	3.56	0.00	0.14	0.53	Yes
11	Emotional -> Loyalty	0.42	4.48	0.00	0.23	0.59	Yes
12	Emotional -> Purchase Intention	-0.40	3.93	0.00	-0.57	-0.17	Yes

The cognitive component of online CBE has no total effects on loyalty, brand advocacy brand preference and purchase intention. The emotional component of online CBE has total effects on loyalty, brand advocacy, brand preference and purchase intention. The behavioural component of online CBE has total effects on loyalty, brand advocacy, brand preference and purchase intention.

Table 44 illustrates direct effects of the cognitive, emotional and behavioural component of online CBE on their consequences. There is no direct effect of the cognitive component of online CBE on loyalty, brand preference, brand advocacy or purchase intention. There is no direct effect of the emotional component of online CBE on loyalty, brand preference, brand advocacy and purchase intention. There is a direct effect of the behavioural component of online CBE on brand preference. There is no direct effect of the behavioural of online CBE on loyalty, brand advocacy or purchase intention.

Table 44: Direct effect of online CBE on its consequences study 4

		β	T statistics	P values	Effect size	Size	Bias corrected 95% confidence interval (2.5%-97.5%)		Supported
1	Behavioural -> Brand Advocacy	0.06	0.86	0.39	0.01	Small	-0.07	0.21	No
2	Behavioural -> Brand Preference	0.19	2.52	0.01	0.05	Small	0.05	0.35	Yes
3	Behavioural -> Loyalty	0.07	1.02	0.31	0.01	Small	-0.07	0.19	No
4	Behavioural -> Purchase Intention	-0.11	1.43	0.15	0.01	Small	-0.25	0.04	No
5	Cognitive -> Brand Advocacy	0.02	0.31	0.76	0.00	Small	-0.14	0.16	No
6	Cognitive -> Brand Preference	0.01	0.14	0.89	0.00	Small	-0.17	0.18	No
7	Cognitive -> Loyalty	0.03	0.34	0.73	0.00	Small	-0.13	0.17	No
8	Cognitive -> Purchase Intention	-0.02	0.20	0.84	0.00	Small	-0.18	0.18	No
9	Emotional -> Brand Advocacy	0.04	0.34	0.74	0.00	Small	-0.18	0.25	No
10	Emotional -> Brand Preference	0.01	0.11	0.91	0.00	Small	-0.24	0.23	No
11	Emotional -> Loyalty	0.02	0.17	0.86	0.00	Small	-0.19	0.23	No
12	Emotional -> Purchase Intention	-0.04	0.32	0.75	0.00	Small	-0.25	0.21	No

Table 45 captures the mediation analysis. The mediation analysis shows that relationship quality has no mediation effect between the cognitive component of online CBE and the consequences of online CEB which are brand advocacy, brand preference, loyalty and purchase intention. Relationship quality provides full mediation between the emotional component of online CBE and the consequences which are brand advocacy, brand preference, loyalty and purchase intention. Relationship quality provides full mediation for the behavioural component of online CBE with the consequences which consist of brand advocacy, loyalty and purchase intention. Relationship quality provides partial mediation between the behavioural component of online CBE and brand preference.

The relationship quality mediates CBE and brand loyalty, as illustrated in Adhikari and Panda's (2019) empirical study. The components of online CBE are cognitive, behavioural, and emotional in this current study. The degree of mediation that relationship quality has on these three components with their consequences varies from full mediation, partial mediation to no mediation. Zhao et al. (2010) demonstrate that it is possible to obtain full mediation with indirect effects only while there is no overall effect. The implication of this result is that relationship quality amplifies the effect online CBE has on its consequences. Businesses and brand managers could use relationship quality as a mediator to vary the

effects online CBE has on its consequences. In addition, there is an opportunity to identify other variables which could be used as mediators to amplify the effect of online CBE on its consequences.

Table 45: Mediation analysis study 4

	Hypothesis	Total effects significant	Direct effects significant	Specific indirect effect significant	Relationship quality mediation analysis
1	Behavioural -> Relationship quality -> Brand Advocacy	Yes	No	Yes	Full mediation
2	Behavioural -> Relationship quality -> Brand Preference	Yes	Yes	Yes	Partial mediation
3	Behavioural -> Relationship quality -> Loyalty	Yes	No	Yes	Full mediation
4	Behavioural -> Relationship quality -> Purchase Intention	Yes	No	Yes	Full mediation
5	Cognitive -> Relationship quality -> Brand Advocacy	No	No	No	No effect no mediation
6	Cognitive -> Relationship quality -> Brand Preference	No	No	No	No effect no mediation
7	Cognitive -> Relationship quality -> Loyalty	No	No	No	No effect no mediation
8	Cognitive -> Relationship quality -> Purchase Intention	No	No	No	No effect no mediation
9	Emotional -> Relationship quality -> Brand Advocacy	Yes	No	Yes	Full mediation
10	Emotional -> Relationship quality -> Brand Preference	Yes	No	Yes	Full mediation
11	Emotional -> Relationship quality -> Loyalty	Yes	No	Yes	Full mediation
12	Emotional -> Relationship quality -> Purchase Intention	Yes	No	Yes	Full mediation

The relationship quality mediates CBE and brand loyalty, as illustrated in Adhikari and Panda's (2019) empirical study. The components of online CBE are cognitive, behavioural, and emotional in this current study. The degree of mediation that relationship quality has on these three components with their consequences varies from full mediation, partial mediation to no mediation. Zhao et al. (2010) demonstrate that it is possible to obtain full mediation with indirect effects only while there is no overall effect. The implication of this result is that relationship quality amplifies the effect online CBE has on its consequences. Businesses and brand managers could use relationship quality as a mediator to vary the effects online CBE has on its consequences. In addition, there is an opportunity to identify other variables which could be used as mediators to amplify the effect of online CBE on its consequences.

7.9 Antecedents of online CBE findings study 4

In Study 4, Study 3 and pilot Study 1, involvement has no impact on the cognitive component of online CBE. In Study 2, involvement has an impact on the cognitive component of online CBE. Alghabarat et al. (2020), together with Harrigan et al. (2018), show that involvement has an impact on the cognitive component of CBE. Business-to-business (B2B) purchases are complex and there is an expectation to have a certain level of cognitive processing when doing them.

Involvement has no impact on the emotional component of online CBE in Study 4 and Study 1. Study 3 and Study 2 illustrate that involvement has an impact on the emotional component of online CBE. Hollebeek et al. (2014) define the emotional component of CBE as brand related affects. Alghabarat et al. (2020), as well as Harrigan et al. (2018), find that involvement has an impact on the emotional component of CBE. In B2B, the researcher's view is that emotions would have less impact as the decision-making process in B2B is quite structured. The findings for Study 4 indicate that the emotional component of online CBE is still important.

The findings in Study 4 illustrate that involvement has no impact on the behavioural component of online CBE. Harrigan et al. (2020) show that involvement has an impact on the behavioural component of CBE. Alghabarat et al. (2020) show that involvement has no impact on the behavioural component of CBE. CBE is context dependent, and this could explain the different results. The researcher's view is that involvement must have an impact on the behavioural component of online CBE as once involved with a brand, this should lead to behavioural activities to engage with the brand.

Brand equity has an impact on the cognitive component of online CBE in Study 4. In Study 3, Study 2, and pilot Study 1, brand equity has no impact on the cognitive component of online CBE. In the current study, brand equity is conceptualised as having brand awareness, uniqueness of brand associations and perceived quality. The results of Study 4 seem to be reasonable as brand equity is operating in the minds of people. In B2B, individuals apply their minds before making decisions as dictated by complexity, cost and value of items or services purchased.

In both Study 4 and Study 3, brand equity has an impact on the emotional component of online CBE. Brand equity has no impact on the emotional component of online CBE in Study 2 and pilot Study 1. Brand equity is bound to arouse emotions in the customer, making findings of Study 4 and Study 3 more appropriate to B2B.

Study 4, Study 3 and Study 2 show that brand equity has an impact on the behavioural component of online CBE. Pilot Study 1 indicates that brand equity has no impact on the behavioural component of online CBE. As brand equity reside in the minds of people, it will lead to certain favourable behaviour. The results of Study 4, Study 3 and Study 2 are aligned to this within B2B.

The cognitive component of online CBE is impacted by participation in Study 4 and Study 3. Within Study 2 and pilot Study 1, participation has no impact on the cognitive component of online CBE. Alghabarat et al. (2020) confirm that participation is an antecedent of the cognitive component of CBE. This is supported by relationship marketing which infers that participation could lead to cognitive processes. However, one could also argue that the cognitive component of online CBE could lead to participation, reflecting the cyclic nature of the engagement concept.

In Study 4 and Study 3, participation has an impact on the emotional component of online customer brand engagement. Study 2 and pilot Study 1 show that participation has no impact on the cognitive component of online customer brand engagement. Alghabarat et al. (2020) establish that participation is an antecedent of the emotional component of CBE. The emotional component of CBE is associated with positive feelings towards a brand (Benham et al., 2021). The researcher's view is participation leads to warm feeling towards a brand.

Study 4 and Study 3 indicate that participation has an impact on the behavioural component of online CBE. Study 2 and Study 1 show that participation has no impact on the behavioural component of online CBE. Alghabarat et al. (2020) demonstrate that participation is an antecedent of the behavioural component of CBE. Participation leads to a positive behaviour, and this is aligned to Study 4 and Study 3.

Brand love has an impact on the cognitive component of online customer brand engagement in Study 4 and Study 3. Study 2 and pilot Study 1 indicate that brand love has no impact on the cognitive component of online customer brand engagement. Brand love is the nexus of brand relationships with customers (Junaid et al., 2019). The researcher's view is that brand love would impact the cognitive component of online CBE in line with Study 4 and Study 3.

In all four studies, Study 4, Study 3, Study 2 and pilot Study 1, brand love has an impact on the emotional component of online CBE. Brand love and online CBE are two distinct constructs. Brand love leads to a positive impact on the emotional component of CBE. Study 4 and Study 3 and pilot Study 1 establish that brand love has an impact on the behavioural component of CBE. Study 2 denotes that brand love has no impact on the behavioural component of online CBE. Brand love is a relational construct, and it leads to behaviours in support of the brand which is manifested in the behavioural component of online CBE.

The results show that involvement, brand equity, participation and brand love are antecedents of online CBE and could be used by brand managers and businesses to influence online CBE levels required. Each of these antecedents has varying effects on each of the cognitive, emotional and behavioural components of online CBE. This justifies the multidimensional approach to online CBE.

Analysing each component separately of online CBE which are cognitive, emotional and behavioural provides more insight into the online CBE construct. The results show that it is appropriate to conceptualise brand equity as a higher order construct of brand awareness, uniqueness of brand associations and perceived quality. The results confirm that brand love and online CBE are not the same constructs. Brand love could be an important construct in setting the desired online CBE.

7.10 Online CBE affecting relationship quality findings study 4

Relationship quality is conceptualised as a higher construct of trust, commitment and customer satisfaction. Study 4 and pilot Study 1 reveal that the cognitive component of online customer brand engagement has no impact on relationship quality. The cognitive component of online CBE has an impact on relationship quality in Study 3 and Study 2. In Study 4, Study 3 and pilot Study 1, the emotional component of online CBE has an impact on relationship quality. The emotional component of online CBE has no impact on relationship quality in Study 2. Study 2 and pilot Study 1 show that the behavioural component of online CBE has no impact on the relationship quality while Study 4 and Study 3 show that the behavioural component of online CBE has an impact on relationship quality.

Dessart (2017) conceptualises brand engagement as having cognitive, emotional and behavioural components. Dessart (2017) demonstrates that trust and commitment tested individually are consequences of brand engagement. The psychological and behavioural aspects of customer engagement are described by So et al. (2016) as having five constructs: identification, enthusiasm, attention, absorption, and interaction. According to So et al. (2016), customer engagement affects the relationship quality. So et al. (2016) conceptualise relationship quality to comprise trust and satisfaction. According to Touni et al. (2020), customer engagement has an impact on brand relationship quality within a Facebook brand community.

In B2B relationship quality is a key driver for how customers and companies do business, and it would be expected that all components of online CBE would have an impact on relationship quality. This research shows that it is appropriate to use a higher order construct of relationship quality comprising trust, commitment and satisfaction. There are times when a business would be interested in the overall relationship quality with their customer for strategic decision making irrespective of the contribution of each of the components of relationship quality individually. The results show that the cognitive, emotional and behavioural components of online CBE could be used by brand managers and businesses to influence the relationship quality.

7.11 Relationship quality affecting the consequences of online CBE findings study 4

Relationship quality has an impact in loyalty in Study 4, Study 3 and Study 2. In the pilot Study 1, relationship quality has no impact on loyalty. Ibrahim and Alrajah (2021) demonstrate that relationship quality has an impact on loyalty.

In Study 4, Study 3, Study 2 and pilot Study 1, relationship quality has an impact on brand advocacy. These results are consistent with relationship marketing theory. The brand advocacy could be in different forms. In B2B, this is particularly useful as interpersonal relationships play a significant part. Other potential customers would be influenced by their industry colleagues to use a particular supplier. Badrinarayan and Sierra (2018) found that in B2B relationship quality has an impact on brand advocacy.

Study 4, Study 3, and Study 2 indicate that relationship quality has an impact on brand preference. Pilot Study 1 shows that relationship quality has no impact on brand preference. Erkmen and Hancer's (2019) empirical study in the hospitality industry, demonstrate that customer satisfaction mediated by trust has an impact on brand preference. Each of the relationship quality components could enable each other applying their impact on brand preference.

In Study 4 and Study 3 the outcome is that relationship quality impacts purchase intention whereas in Study 2 and Study 1 relationship quality has no impact on purchase intention. Relationship marketing theory indicates that relationship quality would have an impact on purchase intention in B2B. Huber et al. (2010) establish that brand relationship quality affects the repurchase intention. In B2B, repurchases are required to enable the business to grow. Kursan-Milakovic (2020) finds that in restricted conditions, purchase satisfaction has an impact on repurchase intention.

The results shows that relationship quality is an important metric for businesses. Relationship quality has an influence on loyalty, brand advocacy, brand preference and purchase intention. All these four constructs have the potential to greatly affect the success of a business. Loyalty leads customers to prefer specific brands. Loyal customers are willing

to pay higher prices for products and services. Brand advocacy enables customers to recommend products or services to others. Brand advocates will forgive brands when the brand does something wrong.

When considering alternative providers, brand preference is wanting to select one supplier over others. Brand preference creates repeat customers, and it provides sustainability to a business. Purchase intention shows potential for future purchases. Purchase intention is used as a metric to estimate future sales of a business and potential future sales' contribution of a customer to a business. Manipulation of the relationship quality could result in positive influences on loyalty, brand advocacy, brand preference and purchase intention.

7.12 Relationship quality mediating the consequences of online CBE findings study 4

In Study 4, the cognitive component of online CBE has no effect on its consequences, which are loyalty, brand advocacy, brand preference or purchase intention and relationship quality provides no mediation. Relationship quality provides full mediation between the emotional component of online customer brand engagement and brand advocacy, brand preference, loyalty or purchase intention in Study 4. Without relationship quality, the emotional component of online CBE would have no impact on its consequences.

Relationship quality provides full mediation between the behavioural component of online customer brand engagement and brand advocacy, brand preference or purchase intention in Study 4. In Study 4, relationship quality provides partial mediation between the behavioural component of online CBE and brand preference.

Adhikari and Panda's (2019) empirical study demonstrates that relationship quality mediates the effect of CBE on brand loyalty. The Study 4 results establish the important role relationship quality plays in mediating the effect of the cognitive, emotional and behavioural components of online CBE on loyalty, brand advocacy, brand preference and purchase intention. The mediation ranges from no mediation, partial mediation to full mediation.

In situations where there is full mediation, it shows that the cognitive, emotional or behavioural components of online CBE would have no effect on that consequence if the mediator did not exist. O'Rourke and Mackinnon (2015) recommend the use and identification of additional mediators to enhance the outcomes of tests between constructs. It is required to identify additional mediators which could enhance the effect of the cognitive, emotional and behavioural components of online CBE on their consequences.

7.13 Conclusion

The conceptualisation of online customer brand engagement as having cognitive, emotional and behavioural components was useful to be able to break down online CBE into its constituencies. The findings from the Kenyan and South African data enable more understanding of the antecedents of CBE, namely involvement, brand equity, participation and brand love and their impact in different emerging markets. The results of the Kenyan and South African data are similar for some constructs with differences in the other constructs.

Involvement has no influence on the cognitive, emotional and behavioural components of online customer brand engagement in Study 4. In Study 3, involvement has an effect on the emotional component of online customer brand engagement and has no effect on the cognitive and behavioural components of online customer brand engagement. Brand equity has an effect on the cognitive, emotional and behavioural component of online customer brand engagement in Study 4. In Study 3, brand equity has an impact on the emotional and behavioural component of online CBE with no effect on the cognitive component of online CBE. Brand love and participation has an effect on the cognitive, emotional and behavioural components of online customer brand engagement in both Study 4 and Study 3.

In Study 4, the cognitive component of online CBE has no impact on relationship quality while in Study 3, it has an impact. Both Study 4 and Study 3 show that the emotional component of online CBE has an impact on relationship quality. The behavioural component of online CBE has an effect on relationship quality in Study 4 but it has no

effect in Study 3. In both Study 4 and Study 3, relationship quality has an influence on loyalty, brand advocacy, brand preference and purchase intention.

Relationship quality plays a major role in amplifying the effects of the cognitive, emotional and behavioural components of online CBE on their consequences. The next chapter presents multigroup analysis to study the group difference between the Kenyan data and the South African data.

CHAPTER 8: MULTIGROUP ANALYSIS

8.1 Introduction

To get additional insights from the study, an additional test was done on the data from both Kenya and South Africa. Multigroup analysis using SmartpPLS 4 was done on the groups to get more information on the group differences between the samples collected in Kenya and South Africa. Pilot Study 1, Study 2 and Study 3 were all done using different South Africa samples. Study 4 was done using a Kenyan sample.

8.2 Multigroup analysis

8.2.1 Multigroup analysis methodology

Multigroup analysis is used to show difference in groups, considering the measurement invariance. Reliance on invariances in between group analysis ensures that the measured group differences are not due to the meanings attributed to each of the constructs or latent variables in the different studies (Cheah et al., 2020). Measurement of invariance confirms whether a measurement model measures the same items under different conditions (Henseler et al., 2016). With structural equation modelling, the invariance tests show that the group difference is not due to the measurement model but to the different effects in the structural model. The reasons for the different outcomes could be culturally specific, individual characteristics or respondents approaching the scale options differently (Cheah et al., 2020).

Henseler et al. (2016) developed the measurement invariance composite model (MICOM). The MICOM process tests the configural invariance, compositional invariance, equality of composite mean and equality of variance across the groups. Partial measurement invariance is confirmed by the configural invariance and compositional invariance tests. Full measurement invariance is indicated by the equality of composite means and equality of variance across groups. The MICOM tests were done for each of the two studies which were being compared.

After the MICOM tests then the multigroup analysis was done. Pairwise group analysis were done. Available multigroup analysis methods include Henseler bootstrapped MGA (Henseler et al., 2009), parametric test (Keil et al., 2000), Welch Satterthwait test (Welch, 1947), permutation test (Chin & Dibbern, 2010) and omnibus test of group differences (Sarstedt, Henseler & Ringle, 2011). The parametric, Welch Satterthwait and permutation tests are reported. The Henseler bootstrapped MGA is a one tailed test making it difficult to report the results (Cheah et al., 2020). The omnibus test of group differences is not yet available in SmartPLS 4.

The data from each of the studies was given a code pilot Study 1, Study 2, Study 3 and Study 4 respectively. Pairwise analysis was done for the sample collected in Kenya with each of the samples collected in South Africa. In SmartPLS 4, the MICOM configural invariance was confirmed as the model was used for each of the studies. To carry out step 2 of the MICOM test the permutation multigroup analysis was clicked on SmartPLS 4. The results of the MICOM test were found under Quality Criteria on the results tab. The compositional invariance, equal means and equal variances were obtained and analysed for each pair of studies.

After measurement invariance was confirmed using the MICOM test, the multigroup analysis was done. The commands Calculate and then Bootstrap multigroup analysis were executed. The parametric test and Welch Satterthwait test results were obtained. The permutation test result was obtained from the permutations calculations. These results were then presented and analysed.

8.2.2 Multigroup analysis results

8.2.2.1 Study 4 and Study 3

The MICOM test is used to test if there is invariance between Study 4 and Study 3. Configural invariance is achieved as the same model is used for Study 4 and Study 3. Compositional invariance is established indicating partial measurement invariance is established. The equality of means and variance tests shows that for Study 4 and Study 3, there is a difference for involvement and purchase intention. Therefore, full measurement invariance is not established.

Table 46 shows the results of the MICOM test between Study 4 and Study 3. The multigroup differences between Study 4 and Study 3 are checked using the permutation, parametric and the Welch Satterthwait tests. The permutation test show that there is significant difference between Study 4 and Study 3 for the following relationships which are behavioural component of online CBE with loyalty; involvement with cognitive component of online CBE; participation with behavioural component of online CBE; relationship quality with brand preference; and relationship quality with purchase intention. The parametric and Welch Satterthwait tests had similar results with no significant difference for the following relationships which are participation with behavioural component of online CBE; and relationship quality with brand preference.

Table 46: MICOM test between study 4 and study 3

	Configural invariance	Compositional invariance		Partial measurement invariance established	Equal mean assessement				Equal variance assessment				Full measurement invariance established
Constructs		Original correlation	5%		Original difference	5%	95%	Equal	Original difference	5%	95%	Equal	
Behavioural	Yes	1.000	0.998	Yes	-0.13	-0.174	0.162	Yes	0.08	-0.285	0.331	Yes	No
Brand Advocacy	Yes	1.000	0.996	Yes	0.09	-0.167	0.185	Yes	-0.26	-0.381	0.372	Yes	No
Brand Love	Yes	1.000	0.998	Yes	0.11	-0.169	0.168	Yes	-0.34	-0.360	0.382	Yes	No
Brand Preference	Yes	1.000	0.999	Yes	-0.02	-0.157	0.165	Yes	0.04	-0.298	0.322	Yes	No
Brand equity	Yes	1.000	0.998	Yes	0.00	-0.177	0.173	Yes	-0.05	-0.419	0.471	Yes	No
Cognitive	Yes	1.000	0.999	Yes	-0.05	-0.169	0.170	Yes	-0.04	-0.337	0.367	Yes	No
Emotional	Yes	1.000	1.000	Yes	0.00	-0.171	0.168	Yes	-0.25	-0.371	0.406	Yes	No
Involvement	Yes	0.999	0.996	Yes	0.26	-0.171	0.174	No	-0.53	-0.306	0.340	No	No
Loyalty	Yes	0.999	0.998	Yes	-0.02	-0.166	0.183	Yes	0.10	-0.365	0.385	Yes	No
Participation	Yes	1.000	0.998	Yes	-0.08	-0.177	0.175	Yes	0.15	-0.253	0.257	Yes	No
Purchase Intention	Yes	0.995	0.982	Yes	-1.26	-0.178	0.168	NO	-1.55	-0.178	0.215	NO	NO
Relationship quality	Yes	1.000	0.998	Yes	0.00	-0.164	0.173	Yes	-0.08	-0.369	0.407	Yes	NO

Table 47 shows the results of the multigroup analysis between Study 4 and Study 3. The multigroup differences between Study 4 and Study 3 are checked using the permutation, parametric and the Welch Satterthwait tests. The permutation test show that there is a significant difference between Study 4 and Study 3 for the following relationships which are behavioural with loyalty; involvement with cognitive; participation with behavioural;

relationship quality with brand preference; and relationship quality with purchase intention. The parametric and Welch Satterthwait tests had similar results with no significant difference for the following relationships which are participation with behavioural component of online CBE; and relationship quality with brand preference.

Table 47: Multigroup analysis between study 4 and study 3

	Permutation test		Parametric test		Welch Satterthwait test	
Hypothesis	Permutation p value	Significant difference between study 4 and study 3	P value difference (Study_4 vs Study_3)	Significant Difference between study 4 and study 3	P value (Study_4 vs Study_3)	Significant difference between study 4 and study 3
Behavioural -> Brand Advocacy	0.40	No	0.85	No	0.85	No
Behavioural -> Brand Preference	0.14	No	0.26	No	0.29	No
Behavioural -> Loyalty	0.02	Yes	0.04	Yes	0.05	Yes
Behavioural -> Purchase Intention	0.48	No	0.97	No	0.97	No
Behavioural -> Relationship quality	0.23	No	0.49	No	0.52	No
Brand Love -> Behavioural	0.08	No	0.13	No	0.12	No
Brand Love -> Cognitive	0.10	No	0.17	No	0.16	No
Brand Love -> Emotional	0.37	No	0.77	No	0.76	No
Brand equity -> Behavioural	0.52	No	0.99	No	0.99	No
Brand equity -> Cognitive	0.24	No	0.41	No	0.40	No
Brand equity -> Emotional	0.41	No	0.88	No	0.88	No
Cognitive -> Brand Advocacy	0.35	No	0.71	No	0.72	No
Cognitive -> Brand Preference	0.12	No	0.22	No	0.22	No
Cognitive -> Loyalty	0.13	No	0.22	No	0.24	No
Cognitive -> Purchase Intention	0.48	No	0.97	No	0.97	No
Cognitive -> Relationship quality	0.10	No	0.19	No	0.19	No
Emotional -> Brand Advocacy	0.48	No	0.91	No	0.91	No
Emotional -> Brand Preference	0.41	No	0.86	No	0.86	No
Emotional -> Loyalty	0.39	No	0.81	No	0.81	No
Emotional -> Purchase Intention	0.30	No	0.59	No	0.60	No
Emotional -> Relationship quality	0.37	No	0.73	No	0.75	No
Involvement -> Behavioural	0.37	No	0.71	No	0.70	No
Involvement -> Cognitive	0.02	Yes	0.04	Yes	0.04	Yes
Involvement -> Emotional	0.21	No	0.30	No	0.32	No
Participation -> Behavioural	0.04	Yes	0.07	No	0.07	No
Participation -> Cognitive	0.11	No	0.20	No	0.19	No
Participation -> Emotional	0.32	No	0.64	No	0.63	No
Relationship quality -> Brand Advocacy	0.49	No	0.94	No	0.94	No
Relationship quality -> Brand Preference	0.04	Yes	0.06	No	0.06	No
Relationship quality -> Loyalty	0.03	Yes	0.03	Yes	0.04	Yes
Relationship quality -> Purchase Intention	0.00	Yes	0.00	Yes	0.00	Yes

8.2.2.2 Study 4 and Study 2

Table 48 presents the results of the MICOM tests between Study 4 and Study 2. Study 4 and Study 2 have partial measurement invariance. The MICOM test step 1 configural invariance condition is met as Study 4 and Study 2 use the same model. The original correlation is greater than the permutation value for all variables indicating compositional invariance. Full measurement invariance is not established as many of the means are not equal and one variance is not equal.

Table 48: MICOM test: study 4 and study 2

	Configural invariance	Compositional invariance		Partial measurement invariance established	Equal mean assessment				Equal variance assessment				Full measurement invariance established
Construct		Original correlation	5%		Original difference	5%	95%	Equal	Original difference	5%	95%	Equal	
Behavioural	Yes	1.000	0.997	Yes	0.216	-0.224	0.199	No	-0.271	-0.293	0.386	Yes	NO
Brand Advocacy	Yes	1.000	0.992	Yes	0.374	-0.199	0.211	No	-0.025	-0.462	0.541	Yes	NO
Brand Love	Yes	1.000	0.996	Yes	0.653	-0.209	0.205	No	-0.109	-0.393	0.421	Yes	NO
Brand Preference	Yes	1.000	0.999	Yes	0.251	-0.209	0.222	No	-0.106	-0.316	0.379	Yes	NO
Brand equity	Yes	0.999	0.996	Yes	0.000	-0.210	0.204	Yes	-0.037	-0.500	0.561	Yes	NO
Cognitive	Yes	1.000	0.998	Yes	0.323	-0.207	0.207	No	-0.040	-0.398	0.442	Yes	NO
Emotional	Yes	1.000	0.999	Yes	0.630	-0.214	0.206	No	-0.179	-0.396	0.437	Yes	NO
Involvement	Yes	0.998	0.994	Yes	0.343	-0.217	0.210	No	-0.129	-0.375	0.414	Yes	NO
Loyalty	Yes	1.000	0.996	Yes	0.255	-0.223	0.219	No	-0.062	-0.421	0.453	Yes	NO
Participation	Yes	1.000	0.997	Yes	0.621	-0.228	0.216	No	-0.535	-0.256	0.308	No	NO
Purchase Intention	Yes	1.000	0.999	Yes	-1.131	-0.200	0.210	No	-1.453	-0.328	0.393	No	NO
Relationship quality	Yes	1.000	0.997	Yes	0.000	-0.211	0.216	Yes	-0.086	-0.439	0.539	Yes	NO

Table 49 shows the multigroup analysis tests done between Study 4 and Study 2. After establishing partial measurement invariance, Study 4 and Study 2 were checked for group differences. The permutation test, parametric test and the Welch Satterthwait tests showed group differences for behavioural component of online CBE with cognitive component of online CBE; cognitive component of online CBE with relationship quality; emotional component of online CBE with relationship quality; involvement with cognitive component of online CBE; and relationship quality with purchase intention. In addition,

the permutation test showed a group difference for involvement with behavioural component of online CBE and the Welch Satterthwait test showed a group difference for brand equity with emotional component of online CBE.

Table 49: Multigroup analysis study 4 and study 2

	Permutation test		Parametric test		Welch Satterthwait test	
	Permutation p value	Significant difference between study 4 and study 2	P value (Group_4 vs Group_2)	Significant difference between study 4 and study 2	p value (Group_4 vs Group_2)	Significant difference between study 4 and study 2
Behavioural -> Brand Advocacy	0.17	No	0.30	No	0.33	No
Behavioural -> Brand Preference	0.15	No	0.24	No	0.25	No
Behavioural -> Loyalty	0.01	Yes	0.01	Yes	0.02	Yes
Behavioural -> Purchase Intention	0.36	No	0.67	No	0.72	No
Behavioural -> Relationship quality	0.39	No	0.76	No	0.75	No
Brand Love -> Behavioural	0.25	No	0.52	No	0.51	No
Brand Love -> Cognitive	0.35	No	0.66	No	0.62	No
Brand Love -> Emotional	0.40	No	0.67	No	0.59	No
Brand equity -> Behavioural	0.30	No	0.64	No	0.65	No
Brand equity -> Cognitive	0.35	No	0.56	No	0.49	No
Brand equity -> Emotional	0.06	No	0.11	No	0.03	Yes
Cognitive -> Brand Advocacy	0.23	No	0.40	No	0.41	No
Cognitive -> Brand Preference	0.28	No	0.55	No	0.59	No
Cognitive -> Loyalty	0.13	No	0.22	No	0.27	No
Cognitive -> Purchase Intention	0.24	No	0.46	No	0.53	No
Cognitive -> Relationship quality	0.02	Yes	0.03	Yes	0.03	Yes
Emotional -> Brand Advocacy	0.34	No	0.72	No	0.66	No
Emotional -> Brand Preference	0.07	No	0.19	No	0.13	No
Emotional -> Loyalty	0.18	No	0.37	No	0.36	No
Emotional -> Purchase Intention	0.45	No	0.91	No	0.91	No
Emotional -> Relationship quality	0.00	Yes	0.00	Yes	0.00	Yes
Involvement -> Behavioural	0.04	Yes	0.06	No	0.11	No
Involvement -> Cognitive	0.01	Yes	0.00	Yes	0.00	Yes
Involvement -> Emotional	0.08	No	0.06	No	0.06	No
Participation -> Behavioural	0.08	No	0.09	No	0.10	No
Participation -> Cognitive	0.21	No	0.41	No	0.37	No
Participation -> Emotional	0.21	No	0.33	No	0.33	No
Relationship quality -> Brand Advocacy	0.45	No	0.90	No	0.87	No
Relationship quality -> Brand Preference	0.06	No	0.14	No	0.08	No
Relationship quality -> Loyalty	0.06	No	0.09	No	0.06	No
Relationship quality -> Purchase Intention	0.00	Yes	0.00	Yes	0.00	Yes

8.2.2.3 Study 4 and pilot study 1

Study 4 and pilot Study 1 MICOM's test show partial measurement invariance. Study 4 and pilot Study 1 use the same structural equation model. The original correlations are greater than the permutation correlations. Full measurement invariance is not established as only two means are equal, six variances are equal for the 12 constructs used in the study. The results of the MICOM test between Study 4 and Study 1 are presented in table 50.

Table 50: MICOM test study 4 and study 1

	Configural invariance	Compositional invariance		Partial measurement invariance established	Equal mean assessement				Equal variance assessment				Full measurement invariance established
Constructs		Original correlation	5%		Original difference	5%	95%	Equal	Original difference	5%	95%	Equal	
Behavioural	Yes	1.000	0.993	Yes	0.623	-0.276	0.284	No	-0.586	-0.405	0.582	No	No
Brand Advocacy	Yes	0.999	0.980	Yes	0.664	-0.276	0.305	No	-0.194	-0.554	0.694	Yes	No
Brand Love	Yes	0.999	0.993	Yes	0.875	-0.281	0.305	No	-0.69	-0.545	0.674	No	No
Brand Preference	Yes	1.000	0.998	Yes	0.757	-0.273	0.295	No	-0.277	-0.455	0.59	Yes	No
Brand equity	Yes	0.998	0.982	Yes	0.000	-0.294	0.297	Yes	-0.029	-0.643	0.838	Yes	No
Cognitive	Yes	1.000	0.995	Yes	0.663	-0.277	0.308	No	-0.545	-0.494	0.68	No	No
Emotional	Yes	1.000	0.999	Yes	0.794	-0.282	0.311	No	-0.759	-0.538	0.76	No	No
Involvement	Yes	0.998	0.965	Yes	0.396	-0.306	0.297	No	-0.256	-0.496	0.61	Yes	No
Loyalty	Yes	0.999	0.991	Yes	0.777	-0.261	0.31	No	-0.282	-0.505	0.671	Yes	No
Participation	Yes	0.999	0.990	Yes	0.779	-0.285	0.308	No	-0.369	-0.343	0.453	No	No
Purchase Intention	Yes	0.999	0.996	Yes	-1.586	-0.300	0.267	No	-1.266	-0.515	0.812	No	No
Relationship quality	Yes	1.000	0.991	Yes	0.000	-0.282	0.298	Yes	-0.03	-0.54	0.771	Yes	No

Table 51 shows the results of the multigroup analysis between Study 4 and Study 1. The comparison between Study 4 and Study 1 show common group differences for the permutation test, parametric test and Welch Satterthwait test in the following pairs of constructs behavioural component of online CBE with brand advocacy; emotional component of online CBE with purchase intention; and relationship quality with purchase intention. The permutation and parametric test had three common group differences in the behavioural component of online CBE with brand preference, brand equity with the behavioural component of online CBE and the cognitive component of online CBE with purchase intention. The permutation and Welch Satterthwait test had group differences in brand love with the emotional component of online CBE, brand equity with the emotional

component of online CBE and relationship quality with brand preference. The parametric test had group differences for the behavioural component of online CBE and loyalty. The Welch Satterthwait test had group differences for relationship quality with loyalty.

Table 51: Multigroup analysis study 4 and study 1

	Permutation test		Parametric test		Welch Satterthwait test	
	Permutation p value	Significant difference between study 4 & study 1	p value (Group_4 vs Group_1)	Significant difference between study 4 & study 1	p value (Group_4 vs Group_1)	Significant difference between study 4 & study 1
Behavioural -> Brand Advocacy	0.03	Yes	0.01	Yes	0.02	Yes
Behavioural -> Brand Preference	0.04	Yes	0.04	Yes	0.11	No
Behavioural -> Loyalty	0.06	No	0.04	Yes	0.11	No
Behavioural -> Purchase Intention	0.48	No	0.88	No	0.91	No
Behavioural -> Relationship quality	0.25	No	0.39	No	0.52	No
Brand Love -> Behavioural	0.08	No	0.16	No	0.24	No
Brand Love -> Cognitive	0.22	No	0.42	No	0.42	No
Brand Love -> Emotional	0.02	Yes	0.10	No	0.02	Yes
Brand equity -> Behavioural	0.04	Yes	0.04	Yes	0.09	No
Brand equity -> Cognitive	0.36	No	0.66	No	0.58	No
Brand equity -> Emotional	0.02	Yes	0.11	No	0.01	Yes
Cognitive -> Brand Advocacy	0.40	No	0.67	No	0.67	No
Cognitive -> Brand Preference	0.27	No	0.57	No	0.58	No
Cognitive -> Loyalty	0.31	No	0.58	No	0.65	No
Cognitive -> Purchase Intention	0.04	Yes	0.05	Yes	0.08	No
Cognitive -> Relationship quality	0.28	No	0.55	No	0.66	No
Emotional -> Brand Advocacy	0.12	No	0.25	No	0.21	No
Emotional -> Brand Preference	0.37	No	0.68	No	0.61	No
Emotional -> Loyalty	0.48	No	0.98	No	0.98	No
Emotional -> Purchase Intention	0.02	Yes	0.04	Yes	0.03	Yes
Emotional -> Relationship quality	0.39	No	0.75	No	0.82	No
Involvement -> Behavioural	0.35	No	0.58	No	0.64	No
Involvement -> Cognitive	0.31	No	0.46	No	0.41	No
Involvement -> Emotional	0.32	No	0.50	No	0.42	No
Participation -> Behavioural	0.15	No	0.29	No	0.40	No
Participation -> Cognitive	0.37	No	0.64	No	0.62	No
Participation -> Emotional	0.13	No	0.23	No	0.12	No
Relationship quality -> Brand Advocacy	0.45	No	0.88	No	0.81	No
Relationship quality -> Brand Preference	0.03	Yes	0.08	No	0.03	Yes
Relationship quality -> Loyalty	0.06	No	0.07	No	0.05	Yes
Relationship quality -> Purchase Intention	0.01	Yes	0.00	Yes	0.00	Yes

8.2.3 Discussion and conclusion

The findings for the multigroup analysis for Study 4 and Study 3 show that there is a group difference for some of the relationships between constructs. The differences are between the following pairs of variables: involvement and the cognitive component of online CBE; participation with the behavioural component of online CBE; the behavioural component of online CBE with loyalty; relational quality with brand preference; relationship quality with loyalty; and relationship quality with purchase intention. The group analysis tell us that there is a difference but it does not tell us about the reasons for the differences. Additional tests could be done using the demographic information already collected to try to determine the probable reasons for these differences. Culture could be one of the reasons why there is differences in these two groups as study 4 was done using a Kenyan sample and Study 3 was done using a South African sample. The history, religion, language and economic philosophies in South Africa and Kenya are different and these could influence the values and norms of these societies.

Study 4 and Study 2, showing group differences between the following constructs were observed: brand equity with the emotional component of online CBE; involvement with the cognitive component of online CBE; involvement with the behavioural component of online CBE; the behavioural component of online CBE with loyalty; relationship quality with purchase intention; the cognitive component of online CBE with relationship quality; and the emotional component of online CBE with relationship quality. Study 4 was done using a Kenyan sample and Study 2 was done using a South African sample. The group differences could be attributed to different approaches to education in Kenya and in South Africa. It was expected for comparison of Study 4 and Study 2 to have group differences since Study 4 and Study 3 has group differences. Study 3 and Study 4 were both done using different South African samples.

There are group differences for Study 4 and Study 1. The group differences are between the following constructs: brand love with the emotional component of online CBE; brand equity with the emotional component of online CBE; the behavioural component of online CBE with brand advocacy; the behavioural component of online CBE with brand preference; the behavioural component of online CBE with loyalty; the cognitive

component of online CBE with purchase intention; the emotional component of online CBE with purchase intention; relationship quality with brand preference; relationship quality with loyalty; and relationship quality with purchase intention. Group differences were expected as Study 4 was done with a Kenyan sample and Study 1 with a South African sample. All three studies done with South African samples - Study 1, Study 2 and Study 3 - show group difference with Study 4 which was done with a Kenyan sample. Our major interest was getting group difference between the Kenyan sample and the South African samples. The samples collected for South Africa were not tested among themselves for any group differences.

CHAPTER 9: SUMMARY, LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS

9.1 Introduction

This chapter provides a summary of the research, analysis, interpretations of the results, limitations, impact on knowledge gap and recommendations. This concluding chapter captures the essence of the whole research and provides a summary of the research in one place.

9.2 Research summary

9.2.1 Justification for the research

The study focuses on the antecedents and consequences of online CBE with B2B in an emerging market. The research topic is antecedents and consequences of online CBE in B2B in an emerging market. CBE is when the brand is the primary engagement article. Hollebeek et al. (2014), as well as Junaid et al. (2019), assert that the engagement concept requires more study. Trading in B2B is between businesses. Decision making in B2B is complex and in this study, the engagement lens is used to understand complex decision making. Fern and Brown (1984) though, argue that B2B and B2C markets are not different.

Seyedghorban et al. (2016) insinuate that there is not enough B2B branding research in emerging markets. This research contributes to the call by Seyedghorban et al. (2016) to situate more B2B branding studies in emerging markets. The unit of study is the decision-making unit which is multidisciplinary and may include everyone involved in the buying process, such as end users, procurement, finance, engineering, sales, and the company executives. In this study, a model which captures the antecedents and consequences of online CBE is conceptualised and tested in the emerging markets of South Africa and Kenya. Online CBE is conceptualised as being multidimensional with the cognitive, emotional, and behavioural components of online CBE. The antecedents selected for this study are involvement, brand equity, participation, and brand love. The selected consequences are loyalty, brand advocacy, brand preference and purchase intention with relationship quality mediating online CBE and its consequences.

The research question used for this study are how the antecedents of online CBE affect online CBE, how does online CBE affect relationship quality, how does relationship quality affect the consequences of online CBE and how does relationship quality provide mediation to the consequences of online CBE.

This research studies the relationship between brand love and engagement in response to Junaid et al.'s (2019) call for more studies between brand love and engagement. From 2014-2024, the marketing science institute encourages more research in engagement. The research extends the body of knowledge of online CBE and marketing situating the research in emerging markets of South Africa and Kenya in the ICT industry. Hollebeek (2011a) encourage comparative research within different industries and cultures to unravel the concept of customer engagement. The selected CBE, brand equity and brand love scales are validated in this research. The results of this study could be used to formulate more in-depth online CBE strategies. Brand managers and businesses could use these strategies to manipulate online CBE and its consequences.

9.2.2 Online and offline business environments

The online environment is another channel for doing business. There are differences between online and offline customer experience. In an online environment, the period for contact is determined by the customer whereas in an offline environment, it is determined by the company. Audio visual is normally used to present a brand online, but several devices could be used offline. In decision making, the effect of brand awareness is greater online than offline.

9.2.3 Differences of B2B and B2C

The markets and products in B2B are different from those in B2C. In B2B, there are usually few costly products. The B2B customer goes through a more complex decision-making process that the B2C customer. The purchasing process in B2B is more formalised with the number of people involved in the decision-making process increasing as the cost, importance, and complexity of a solution increases. However, there is another school of

thought which suggests that B2B is just another way of doing business and that the norms in B2C still apply but only need to be contextualised.

9.2.4 Emerging markets, brand equity and loyalty

Emerging markets include some of the countries in Africa, Asia, Middle East, Latin America, former Soviet Union states and the Eastern bloc. In marketing the context matters, and the emerging markets provide a different context. Humans use branding to create a social identity. Brand equity is the value associated with brands. In this study, three components of brand equity, namely, brand awareness, uniqueness of brand associations and perceived quality are conceptualised as antecedents of online CBE. Loyalty is conceptualised as a consequence of online CBE.

9.2.5 Nature of customer engagement

Customer engagement results in the creation of customer relationships. Customer engagement has been and could be studied in different contexts. The results of other studies seem to suggest that customer engagement is cyclic where antecedents could be consequences and vice versa. Customer engagement has three dimensions, namely, cognitive, emotional, and behavioural components. Studies which adopt a uni-dimensional view of engagement still use the other two dimensions as either antecedents, moderators, mediators or as consequences. Online CBE is a context of customer engagement where the item of interest is the brand in an online environment.

9.2.6 Theoretical approaches to study engagement

A number of theoretical approaches have been used to study engagement and these include social exchange theory, relationship marketing, service dominant logic, consumer culture theory, congruity theory, regulatory theory, and Maslow's hierarchy of needs. It is probable that the context of the research determines the theory selected for each of the studies. In the current study, relationship marketing was selected. The researcher inferred that customers want meaningful relationships with companies when they engage with their brands online. Establishment of trust is important to enable customers to engage brands

online. A conceptual framework for online CBE was developed with four antecedents, namely, involvement, brand equity, participation, and brand love. The consequences selected are loyalty, brand advocacy, brand preference and purchase intention. Online CBE was conceptualised as having cognitive, emotional, and behavioural components. The consequences in this study are loyalty, brand advocacy, brand preference and purchase intention. Relationship quality was selected as the mediator between online CBE and its consequences.

9.2.7 Research gap analysis

A literature driven knowledge gap analysis was done to identify the knowledge gap to address in this research. Bolton (2011) calls for a study of the relationship between existing marketing constructs and customer engagement. Brand love and brand equity are tested as antecedents of online CBE in this research. Alamro and Rowley (2011) claim that brand preference and loyalty are independent constructs, and these are tested independently as consequences of online CBE in this research. Seyedghorban et al. (2016) infer that there is not enough B2B brand research in emerging markets. Sinha and Sheth (2018) recommend testing different marketing constructs and theories in emerging markets. Online CBE is tested in emerging markets of South Africa and Kenya. Hollebeek et al. (2014) and Junaid et al. (2019) indicate that the engagement concept is under-developed and needs further research. This research responds to that call for further studies in engagement by the MSI. Decision making in B2B is complex. The engagement lens is used in this research to understand better decision making in B2B. Additional insights in the discussion of the multidimensionality of the engagement concept and applicability of the developed engagement scales is provided. Junaid et al. (2019) motivate that the relationship between brand love and engagement is not fully explored.

9.2.8 Research approach, procedures and method

A positivism research paradigm was used together with a quantitative data collection instrument. An online self-administered questionnaire was used to collect the data. The descriptive research design was employed. Four studies were conducted.

A pilot Study 1 was used to test and improve the research instrument. A total of 37 respondents contributed to the pilot study. Purposive sampling was used to approach a few companies in the ICT industry in South Africa in B2B. An anonymous link generated on Qualtrics was shared with the companies who then distributed it to their employees. The companies which participated in the pilot study are Dark Fibre Africa, Broadband Infraco, Cool Ideas, Metro Fibre Networks, Ispace, Compatel and Level 7. SmartPLS 4 was used to analyse the data collected. Minor changes were made to the research instrument to make it clearer before embarking on the additional three studies. Two indicators with low loadings for brand love and one indicator with low loadings for loyalty were dropped.

Study 2 was conducted in South Africa using employees of companies in the ICT industry in B2B. Companies in the ICT industry were directly approached for them to allow their employees to contribute to the survey. An anonymous link generated on Qualtrics was distributed to the company employees with a total of 85 people responding to the survey. The population for Study 2 were all decision makers in ICT companies in B2B in South Africa. Purposive sampling was done to identify employees of the companies to participate in the survey. The companies selected were identified from the ICASA, South Africa stock exchange and ISPA databases. The companies which allowed their employees to respond to the survey include Telkom South Africa, Gijima, Aziz and SGT Solutions. SmartPLS4 was used to analyse the data collected.

In Study 2, it was difficult to get additional respondents so Borderless Access was approached to collect additional data. Borderless Access has a panel of people in B2B in the ICT industry in South Africa. It was decided to analyse the additional people collected by Borderless Access separately, forming Study 3. A separate project with the same questionnaire as Study 2 was created on Qualtrics. An anonymous link was shared with the people on the Borderless Access panel. Purposive sampling was used to select the 600 people from the Borderless Access panel to whom the link was sent. Each respondent was provided a unique identifier in Study 3 and 160 fully completed responses were obtained. The data collected was analysed using SmartPLS 4.

To provide a comparison between the data collected in South Africa with another emerging market country, data was collected from Kenya using a Borderless Access panel in the ICT industry in B2B in Kenya. Purposive sampling was used to target ICT decision makers in Kenya. The population of the study were all decision makers in ICT companies in B2B. The survey was sent out to 1794 people. A unique identifier was appended to each response from the Borderless Access respondents who contributed to the survey. The Kenyan study included the same constructs as those from South Africa, using a different project created on Qualtrics. The Kenyan questionnaire was modified from the South African questionnaire. A total of 217 fully completed responses were obtained from the Kenyan study. SmartPLS 4 was used to analyse the data obtained from the Kenyan study.

A quantitative approach was used for this study as it allowed the checking of the relationship between the selected constructs. The researcher adopted existing scales for each construct enabling a numerical representation of each response for each of the constructs. This enabled the researcher to provide a descriptive statement based on the current study of the relationship between the constructs similar to how Cohen (1980) describes a quantitative study. The quantitative approach enabled the analysis of relationship quality as a mediator between the online CBE constructs and their hypothesised consequences. The research method used enabled the collection of information to test the reliability and validity of the measurement scales used. All measurement scales were found to be reliable using the Cronbach's alpha and composite reliability. The construct validity was found to be adequate using the convergent validity and discriminant validity tests. Structural equation modelling was used as it enabled testing the relationship among a number of constructs, and it also enabled mediation tests. The variance inflation factor and the R-Square were used to measure the structural equation modelling appropriateness for this research and adequate results were obtained for all the studies. Hypothesis testing was used to test the relationship among the constructs.

9.3 Discussion search findings

9.3.1 Antecedents of online CBE

Involvement and the cognitive component of online CBE

The hypothesis of this study was that involvement influences the cognitive component of online CBE. In Study 4, Study 3 and pilot Study 1, involvement has no impact on the cognitive component of online CBE. In Study 2, involvement has an impact on the cognitive component of online CBE, similar to the results obtained by Alghabarat et al. (2020), as well as Harrigan et al. (2018). Study 4 was done in Kenya, and it shows that involvement has no impact on the cognitive component of online CBE. The South African Study 3 and South African Study 2 have opposing results. Zaichkowsky (1985) defines involvement as perceived relevance of an item based on the usefulness of the object linking the needs, values, and interests of the user. It seems involvement should have an impact on the cognitive component of online CBE in B2B in all markets, including the emerging markets of South Africa and Kenya. Purchasing in B2B is complex and it is likely that, in most cases, a certain level of cognitive processing would be required. The implication of this result is that it shows the importance of involvement in affecting the cognitive component of online CBE. However, additional studies are required to determine the contexts in which involvement would have an impact on the cognitive component of online CBE.

Involvement and the emotional component of online CBE

A multidimensional approach to online CBE is taken in this research with the following dimensions, namely, cognitive, emotional and behavioural. The emotional component is the affection exerted towards the brand. The researcher hypothesised that involvement would have an impact on the emotional component of online CBE. Study 3 and Study 2 show that involvement has an impact on the emotional component of online CBE while Study 4 and pilot Study 1 show that involvement has no impact. Study 3 and Study 2 were both done in South Africa while Study 4 was done in Kenya. Emerging markets are not the same and the difference could be due to the difference between South Africa and Kenya. Alghabarat et al. (2020), together with Harrigan et al. (2018), show that involvement

has an impact on the emotional component of CBE. It appears in B2B emotions would be less important. It is expected that people would be more objective with support of facts when dealing with business decisions. The results though, appear to suggest that the emotional component of online CBE is still an important factor, and it is affected by involvement. The implication of these results are that the emotional component of online CBE is still an essential factor in B2B and involvement has an impact on the emotional component of online CBE.

Involvement and the behavioural component of online CBE

The behavioural component of online CBE is the activation towards the brand. The researcher hypothesised that involvement has an impact on the behavioural component of online CBE. The findings show that involvement has no impact on the behavioural component of online CBE in all four studies - Study 4, Study 3, Study 2, and pilot Study 1. Alghabarat et al.'s (2020) findings show that involvement has no impact on CBE. Harrigan et al. (2018) found that involvement has an impact on the behavioural component of CBE in social media tourism marketing. Online CBE is context dependent which could explain the opposing results by Alghabarat et al. (2020) and Harrigan et al. (2018). Leckie et al. (2016), in the context of mobile phone providers, found the involvement has an impact on the behavioural component of CBE. In the researcher's view involvement must have an effect on the behavioural component of online CBE as involvement could lead to action. However, the results obtained are contrary to this. It is probable that these results should hold true whether online or offline or within B2B or B2C as involvement with a brand should lead to action, irrespective of the situation. The implication of these results are that additional studies are required to unravel more the impact of involvement on the behavioural component of online CBE. Different contexts have to be considered, be it offline, online, B2B or B2C.

Brand equity and the cognitive component of online CBE

The researcher hypothesised that brand equity has an effect on the cognitive component of online CBE. In this research, brand equity was conceptualised as a higher order construct comprising brand awareness, uniqueness of brand associations and perceived

quality. In Study 3, Study 2 and pilot Study 1, brand equity has no impact on the cognitive component of online CBE while in Study 4, brand equity has an impact on the cognitive component of online CBE. The multigroup analysis shows that there are group differences between Study 4 and all the studies done in South Africa. The results suggests that with South Africa, which comprised Study 3, Study 2 and pilot Study 1, brand equity has no impact on the cognitive component of online CBE while the Kenyan Study 4 shows that brand equity has an impact on the cognitive component of online CBE. The results from Study 4 appear to provide evidence that brand equity has an impact on the cognitive component of online CBE. Brand equity is operating in the minds of the people as such results of Study 4 appear appropriate, particularly in B2B, as it appears that people tend to apply their minds when they need to make business decisions. The implication of these results are that brand managers and businesses could use brand equity to manipulate the cognitive component of online CBE.

Brand equity and the emotional component of online CBE

Aaker (1991) argues that brand equity provides value to the customer by increasing processing ability of information and providing confidence in decision making. The state of confidence is an emotional attribute. In B2B, confidence in decision making is required as the opportunity cost of a mistake is higher, compared to B2C. The researcher hypothesised that brand equity has an impact on the emotional component of online CBE. In Study 4 and Study 3, brand equity has an impact on the emotional component of online CBE while in Study 2 and Study 1, brand equity has no impact on the emotional component of online CBE. Study 4 is for Kenya and Study 3 is for South Africa. Despite being in different emerging markets, both studies show brand equity has an impact on the emotional component of online CBE. Few studies have analysed the effect of brand equity on the emotional component of online CBE. Brands work on the emotions of people. The results suggests that brand equity does have an impact on the emotional component of online CBE. The implications of these results are that brand equity must be considered when reviewing ways of managing the emotional component of online CBE.

Brand equity and the behavioural component of online CBE

In this research, brand equity is conceptualised as a higher order construct comprising brand awareness, uniqueness of brand associations and perceived quality. According to Keller (1993), brand awareness is a component of brand knowledge and brand knowledge resides in the mind of people. Uniqueness of brand associations is when a customer associates a specific attribute with a particular brand. The perceived quality is how a customer feels about a particular brand. The researcher hypothesised that brand equity has an impact on the behavioural component of online CBE. The results of pilot Study 1 show that brand equity has no impact on the behavioural component of online CBE while Study 4, Study 3, and Study 2 show that brand equity has an impact on the behavioural component of online CBE. The Kenyan Study 4 supports that brand equity has an impact on the behavioural component of online CBE. The South African studies, Study 3 and Study 2 are aligned to the results of Kenyan Study 4 where brand equity has an impact on the behavioural component of online CBE. Brand awareness will lead to action towards a brand. When a customer associates a brand with a specific good attribute, it will lead to action in supporting that brand, irrespective of whether the engagement is online or offline. When a customer perceives a brand to be of good quality it will lead to action in both B2B and B2C. The results suggests that brand equity would have an impact on the behavioural component of online CBE. The likely explanation is that brand equity resides in the minds of the people leading to favourable behaviour. The implication of these results are that brand equity could lead to action and brand equity has to be considered as a potential construct which could be used to obtain favourable behaviours as it can be used to manipulate the behavioural component of online CBE.

Participation and the cognitive component of online CBE

Participation indicates the levels the customer partakes in delivering the product or service (Dabholkar, 1990; Vivek et al., 2012). This definition indicates that the customer will do something while enabling the delivery of the product or service. Brodie et al. (2011) conceptualise that participation is an antecedent of customer engagement. The researcher hypothesised that participation has an impact on the cognitive component of online CBE. In Study 2 and pilot Study 1, participation has no impact on the cognitive component of

online CBE. Study 4 and Study 3 determine that participation has an impact on the cognitive component of online CBE. Study 4 is from the Kenyan sample and Study 3 is from the South African sample. These results are consistent with the results obtained by Alghabarat et al. (2020), in common with Leckie et al. (2016), and where participation is an antecedent of the cognitive component of CBE. Though Kenya and South Africa are different emerging markets, they show similar results for participation. The analysis seems to lead to a conclusion that participation has an impact on the cognitive component of online CBE. Relationship marketing theory infers that participation would lead to cognitive processes. An argument that cognitive processes could lead to participation is plausible, indicating the cyclic nature of the engagement concept. The implication of these results are that companies need to find ways and develop programmes for allowing customers to participate as participation has an impact on the cognitive component of online CBE.

Participation and the emotional component of online CBE

Brodie et al. (2011) conceptualise that participation is an antecedent of customer engagement. Benham et al. (2021) assert that the emotional component of online CBE is associated with a positive feeling towards a brand. The researcher hypothesised that participation has an impact on the emotional component of online CBE. Participation has an impact on the emotional component of online CBE in Study 4 and Study 3. In Study 2 and pilot Study 1, participation has no impact on the emotional component of online CBE. The studies by Leckie et al. (2016) do not support participation as having an impact on the emotional component of CBE in a mobile service providers market. Alghabarat et al.'s (2020) findings indicate that participation is an antecedent of the emotional component of CBE. Difference in the results could be due to the different contexts in which the studies were done as the engagement is contextual. This researcher is of the view that participation leads to warm feelings towards a brand and therefore participation would have an impact on the emotional component of online CBE. The findings and analysis suggests that participation has an impact on the emotional component of online CBE. The implication of these results are that businesses and brand managers could use participation to influence the emotional component of online CBE.

Participation and the behavioural component of online CBE

Participation leads to positive behaviours. Brodie et al. (2011) conceptualise participation as an antecedent of customer engagement. Carlson et al. (2019) study the impact of customer participation on relational value which could be considered behavioural in social media brand communities. Their results allude to the fact that participation has an impact on relational value. This researcher hypothesised that participation has an impact on the behavioural component of online CBE. Study 4 and Study 3 results establish that participation has an impact on the behavioural component of online CBE. Study 2 and pilot Study 1 resolve that participation has no impact on the behavioural component of online CBE. Leckie et al. (2016) found that participation has no impact on CBE . The researcher is of the view that participation should have an impact on the behavioural component of online CBE. When someone participates, it leads to engagement behaviours. This view is supported by Alghabarat et al. (2020) who establish that participation is an antecedent of the behavioural component of CBE. Participation would lead to engagement behaviours in both B2B and B2C markets and in both the offline and online environment. The implication of these results are that companies could use participation to enhance action towards the brand as participation has an impact on the behavioural component of online CBE.

Brand love and the cognitive component of online CBE

Carrol and Ahuvia (2006) argue that brand love is the fondness a well satisfied customer has with a particular company or symbol of the company. Consumer research shows that customers are prone to developing critical bonds with brands (Junaid et al., 2019; Thomson, 2006). The concept of love affects brand relationships. Parallels have been drawn between human interpersonal love and brand love. Batra et al.'s (2012) study indicates that brand love and human interpersonal love are not fully comparable. At the centre of brand relationship with customers is brand love (Junaid et al., 2019). A lot of studies about brand love have been done but there is still room to explore additional brand love consequences. Brand love is a distinct construct to online CBE. Junaid et al. (2019) assert that few studies have analysed the relationship between brand love and customer engagement. The researcher's hypothesis is that brand love has an impact on the cognitive

component of online CBE. In Study 4 and Study 3, brand love has an impact on the cognitive component of online CBE. Study 2 and pilot Study 1 show that brand love has no impact on the cognitive component of online CBE. Junaid et al.'s (2019) study shows that brand love impacts on customer engagement. They do not break customer engagement into their own components as was done in the current research. They found that brand love has an impact on the customer engagement. My research results indicate that brand love has an impact on the cognitive component of online CBE. The implication of these results are that brand love is one of the antecedents of online CBE and it could be used to affect the cognitive component of online CBE. Businesses and brand managers could use brand love as a strategic tool to influence the cognitive component of online CBE.

Brand love and the emotional component of online CBE

Hudson et al. (2016) argue that brand love is an important component of brand relationship quality. The relationship marketing theory could be used to understand better the concept of brand love. Brand love could result in affective outcomes (Batra et al., 2012; Fournier, 1998; Wallace et al., 2022). The emotional component of online CBE is the affective component of online CBE. The researcher's hypothesis is that brand love has an impact on the emotional component of online CBE. In all four studies, namely Study 4, Study 3, Study 2 and pilot Study 1, brand love has an impact on the emotional component of online CBE. It is paramount to distinguish brand love as being distinct from the emotional component of online CBE. Carrol and Aluvia (2006) define brand love as the intensity of a happy customer's affective commitment to the brand. Batra et al. (2012) indicate that brand love and human interpersonal love are not fully comparable. Bowden (2009) alludes that for engagement to occur, there needs reciprocity between engagement subject and object and in this case, it is between customer and brand. The emotional component of online CBE is the affective component of online CBE. Analysing Hollebeek's (2011a) definition of CBE, we could infer that the emotional component of online CBE is the affective level of the customer's state of mind related to the brand. Though both brand love and the emotional component of online CBE work with reciprocity with the subjects, they are indeed distinct constructs. Therefore, this study concludes that brand love has an impact on the emotional component of online CBE. The

implication of these results are that brand love is a distinctive construct to CBE and it could be used to influence the emotional component of online CBE.

Brand love and the behavioural component of online CBE

Wallace et al. (2022) assert that brand love, just like any other human connection, could last for many years and have several emotional, mental and activation consequences. The behavioural component of online CBE is the activation component of CBE. The researcher hypothesis is that brand love has an impact on the behavioural component of online CBE. In Study 4 and Study 3, brand love has an impact on the behavioural component of online CBE while it has no impact in Study 2 and pilot Study 1. The researcher's view is that brand love has an impact on the behavioural component of online CBE. One could make the argument that the behavioural component of online CBE is one of the activation consequences which Wallace et al. (2022) advance. The likely explanation is that brand love leads to behaviour in support of the brand. The implication of these results is that brand love will lead to actions which support the brands and could be manifested in the behavioural component of online CBE. Brand love could be used by brand managers and businesses to drive the behavioural component of online CBE.

9.3.2 Effect of online CBE on relationship quality

The cognitive component of online CBE and relationship quality

In this study, relationship quality is conceptualised as a higher order construct comprising trust, commitment, and satisfaction (Dorsch et al., 1998; Hollebeek, 2011a; Ulaga & Eggert, 2006). Trust is brand interactions deemed by customers as being dependable and safe, which make them think that the company is functioning in their best interest (Delagado-Ballester et al., 2003; Hollebeek 2011a; Rotter 1976). Commitment is appreciating an ongoing connection with a specific other entity justifying efforts to attempt to keep it up or a desire for it to happen (Hollebeek, 2011a; Moorman et al.,1993; Morgan & Hunt, 1994). Customer satisfaction is appraisal of an offering total effectiveness up to now (Gustafsson et al., 2005; Hollebeek, 2011a; Johnson & Fornell, 1991). Saks (2006) found an association between employee engagement and job satisfaction. In this study, it is hypothised that the cognitive component of online CBE has an impact on relationship

quality. In Study 3 and Study 2, the cognitive component of online CBE has an impact on the relationship quality whereas in Study 4 and Study 1, it has no impact. The researcher is of the view that the cognitive component of online CBE would have an impact on relationship quality. The implication of these results are that companies need to enhance the cognitive component of online CBE as it impacts relationship quality.

The emotional component of online CBE and relationship quality

To understand and clarify the influence of customer engagement on numerous relational outcomes, such as trust, and commitment, Vivek et al. (2014) embrace the enlarged domain of relational marketing theory and their findings confirm that relationship marketing theory is a suitable theory when studying customer engagement. Morgan and Hunt (1994) define relationship marketing as encompassing all marketing activities that build and sustain effective transactions. The researcher hypothesised that the emotional component of online CBE would have an impact on relationship quality. In Study 4, Study 3, and pilot Study 1, the emotional component of online CBE has an impact on the relationship quality while Study 2 has no impact. The results appear to provide evidence that the emotional component of online CBE has an impact on relationship quality. The expectation confirmation theory of satisfaction alludes to the fact that the customer compares what he gets to his original expectations (Oliver 1977; 1980; Parasuraman et al., 1988; Ulaga & Eggert, 2006). The perception that the customer gets more leads to satisfaction, otherwise the customer is not satisfied. The implication of these results are that the emotional component of online CBE could be used as a tool by businesses and brand managers to sway the relationship quality with their customers.

The behavioural component of online CBE and relationship quality

Morgan and Hunt (1994) formulated the trust-commitment theory of relationship marketing which result in co-operating actions that facilitates relationship marketing. Hunt, Arnett and Madhavaram (2006) assert that relationship marketing suggest that customers participate in exchange relationships with companies when they trust that the advantages outweigh the expenses associated in the exchanges they do with that company. Online CBE is a relational concept so it would be expected to have an impact on relationship

quality. This researcher's hypothesis is that the behavioural component of online CBE has an impact on relationship quality. In Study 4 and Study 2, the behavioural component of online CBE has an impact on relationship quality, while in Study 3 and Study 1, it has no impact on relation quality. The researcher therefore, is of the view that the behavioural component of online customer brand must have an impact on relationship quality, and this is supported by the results of Study 4 and Study 2. Customers choose suppliers in B2B partnerships who they believe will have their best interests in mind and who are dependable (Ulaga & Eggert, 2006). Doing business online entails social uncertainty and risk and therefore trust is at the core of all relationships in the online world (Gefen et al., 2003). The implication of these results are that the behavioural of online CBE could be used to set the required levels of relationship quality.

Most of the previous studies done between customer engagement and relationship quality did not break down the components of customer engagement in the analysis but take customer engagement as a higher order construct. Touni et al. (2020) found that customer engagement influences brand relationship quality in a hotel Facebook brand community. Carlvaho and Fernandes's (2018) empirical study of CBE with virtual social communities shows that CBE influences customer commitment and customer trust. Dessart's (2017) studies of social media engagement concludes that brand engagement influences brand trust and brand commitment. Dessart (2017) uses brand engagement which has an affective, cognitive and activation component. So et al. (2016) determine that customer engagement has an influence on relationship quality. So et al. (2016) adopted relationship quality as being a higher order construct of trust and satisfaction.

In this research, relationship quality is a higher order construct of trust, commitment, and satisfaction. In this study, the researcher broke down the components of online CBE into the cognitive, emotional, and behavioural components to determine how each of these components acts on relationship quality. The results suggest that all three components of online CBE have an impact on relationship quality.

9.3.3 Effect of relationship quality on the consequences of online CBE

Relationship quality and loyalty

In the current study, the researcher conceptualises relationship quality as a higher order construct of trust, satisfaction, and commitment. Other writers use different constructs to conceptualise relationship quality. The most common include a variation of trust, satisfaction, and commitment. Crosby et al. (1990), as well as So et al. (2016), use trust and satisfaction to represent relationship quality. Dorsch et al. (1998), in common with Hollebeek (2011a), support the notion that relationship quality has three components, namely trust, commitment and satisfaction. Liu et al. (2011), together with Oliver (1999), define loyalty as the propensity to repeatedly purchase favoured goods or services. The researcher hypothesised that relationship quality will lead to loyalty. Relationship quality influences loyalty in three studies, namely Study 4, Study 3, and Study 2. In pilot Study 1, relationship quality has no impact on loyalty. Ibrahim and Alrajah (2023) found that relationship quality has an impact on loyalty in social media marketing. Liu et al. (2011) find that trust and satisfaction has an impact on loyalty for mobile phone users. Based on the results and consideration of earlier similar studies, the researcher concludes that relationship quality has an impact on loyalty. The implication of these results are that relationship quality could be used to shape loyalty.

Relationship quality and brand advocacy

Sashi (2012) differentiates brand advocacy from other consequences of customer engagement, arguing that delighted customers may decide to keep the delight to themselves, and loyal customers may not voluntarily praise a product. Instead, loyal customers will only become advocates after developing an emotional bond to the brand or product (Sashi, 2012). The researcher's hypothesis is that relationship quality influences brand advocacy. Consistent with the relationship marketing theory, Study 4, Study 3, Study 2, and pilot Study 1, illustrate that relationship quality has an impact on brand advocacy. Advocacy could be viewed as enthusiasm for using a product or service, promoting them to others and preparedness to tolerate the brand's shortcomings (Bhattcharya & Sen, 2003; Bilro et al., 2019; Klein & Dawar, 2004; Peloza, 2006). The results shows that trust,

satisfaction, and commitment will influence brand advocacy. For companies to convert their customers to advocates for their products and services, they need to foster trust, satisfaction, and commitment from their customers. The implication of these results are that businesses could use relationship quality as a strategic tool to set the desired levels of brand advocacy.

Relationship quality and brand preference

When evaluating the alternatives and selecting a supplier, brand preference entails preferring a particular supplier over all others (Erkmen & Hancer, 2019; Hellier et al., 2003). This evaluation relates to the way customers view the brand's value (Erkmen & Hancer, 2019). In this study, relationship quality is a higher order construct comprising trust, satisfaction, and commitment. The researcher's hypothesis is that relationship quality influences brand preference. In Study 4, Study 3 and Study 2, relationship quality has an impact on brand preference. In pilot Study 1, relationship quality has no impact on brand preference. Erkmen and Hancer (2019) found that customer satisfaction, mediated by trust, has an impact on brand preference. The researcher is of the view that relationship quality would influence brand preference. Brand preference is an emotional construct and so is trust, satisfaction, and commitment. Brand preference has a special relevance in markets that seem fluid and contested, such as emerging markets, where loyalty could be problematic (Alamro & Rawley, 2011). In markets where loyalty does not exist, companies could use relationship quality to develop brand preference. It is essential for businesses to develop brand preference, and this could be done by enhancing relationship quality as it influences brand preference. The implication of these results are that relationship quality could be used to manipulate the required levels of brand preference in emerging markets.

Relationship quality and purchase intention

Purchase intention could be viewed as a five-dimensional construct comprising preparedness to spend, capacity to spend, potential plans to spend, rebuy choices and

wanting to procure (Blackwell et al., 2001; Dash et al., 2021; Shao et al., 2004). Purchase intentions are often viewed as a crucial sign that a purchase will occur because they develop along with an expectation of an approaching transaction (Chang & Wildt, 1994). Martins et al. (2019) observe that previous studies of purchase intention illustrate a rise in purchase intention is associated with an increase in the chances of a purchase occurring. Badrinarayanan and Laverie (2011) indicate that fruitful relationships lead to purchase intention. The researcher hypothesised in this study that relationship quality has an effect on purchase intention. In Study 4 and Study 3, relationship quality has an impact on purchase intention while in Study 2 and Study 1, relationship quality has no impact on purchase intention. Kursan-Milaković (2021) demonstrates that for online purchases, satisfaction has an effect on repurchase intention. Huber et al. (2010) illustrate that relationship quality affects repurchase intention. De Cannière et al.'s (2010) study shows that relationship quality has an impact on purchase intention. The researcher concludes that relationship quality has an effect on purchase intention. The implication of these results are that trust, satisfaction and commitment could be used to affect purchase intention. As purchase intention is an indicator of a future purchase, this means that companies, by maintaining a good relationship quality with their customers, could lead to more sales of their services and products in B2B within an emerging market.

9.3.4 Mediating role of relationship quality between online CBE and its consequences

Relationship quality mediating the cognitive component of online CBE and its consequences

To study the mediating effect of relationship quality between the cognitive component of online customer brand engagement and its effects, the total effects, direct effects, and specific indirect effect of the cognitive component of online CBE, with its consequences, were established. In Study 3 and Study 2, the cognitive component of online customer brand engagement has an impact on the relationship quality whereas in Study 4 and pilot Study 1, it has no impact.

In Study 4, Study 3, Study 2, and pilot Study 1, the cognitive component of online CBE was found to have no direct effect on loyalty. In Study 4, Study 3, Study 2, and pilot Study 1, the cognitive component of online CBE was found to have no direct effect on brand

advocacy. In Study 4, Study 3, Study 2, and pilot Study 1, the cognitive component of online CBE was found to have no direct effect on brand preference. In Study 4, Study 3, Study 2, and pilot Study 1, the cognitive of online CBE was found to have no direct effect on purchase intention.

The mediation analysis for relationship quality shows that there is no mediation between the cognitive component of online CBE and loyalty for Study 4 and pilot Study 1 but there is full mediation for Study 3 and Study 2. The results indicate that there is full mediation of relationship quality between the cognitive component of online CBE and loyalty in Study 2 and Study 3 which were both done in South Africa. This difference could be due to the fact that Kenya is a different emerging market to South Africa and the multigroup analysis done showed that there are group differences between the data collected in Kenya and South Africa.

The results of Study 4 and Study 1 reveal relationship quality has no mediation between the cognitive component of online CBE and brand advocacy. The results of Study 3 and Study 2 indicate that relationship quality has full mediation between the cognitive component of online CBE and brand advocacy.

Study 4, Study 3 and pilot Study 1 results shows that relationship quality has no mediating effect between the cognitive component of online CBE and brand preference. The results of Study 2 reveal that there is full mediation with indirect effects only between the cognitive component of online of CBE and brand preference when mediated by relationship quality. Relationship quality does not provide any mediation between the cognitive component of online CBE and purchase intention in Study 4, Study 3, Study 2, and pilot Study 1.

The implications of these results are that the cognitive component of online CBE has no effect on loyalty, brand advocacy, brand preference and purchase intention on its own. When relationship quality is added, there is full mediation for loyalty, brand advocacy and brand preference. The addition of relationship quality as a mediator results in the cognitive component of online CBE in influencing loyalty, brand advocacy and brand preference. Additional studies could be used to study potential constructs which could mediate the cognitive component of online CBE and its consequences.

Relationship quality mediating the emotional component of online CBE and its consequences

The emotional component of online CBE has an impact on relationship quality in Study 4, Study 3, and pilot Study 1 while in Study 2, it has no impact. In Study 4 and Study 3, the emotional component of online CBE was found to have no direct effect on brand advocacy, brand preference, loyalty, or purchase intention. The emotional component of online CBE in Study 2 was found to have no direct effect on brand advocacy, loyalty, or purchase intention. In Study 2, the emotional component of online CBE was found to have a direct effect on brand preference. In pilot Study 1, the emotional component of CBE had a direct effect on purchase intention and no direct effect on brand advocacy, brand preference or loyalty.

The mediation analysis of relationship quality and the emotional component of online CBE with loyalty shows there is full mediation in Study 4. In Study 3, relationship quality fully mediates with indirect effects only the emotional component of online CBE and loyalty. In Study 2 and pilot Study 1, relationship quality does not provide any mediation between the emotional component of online CBE and loyalty.

Relationship quality provides full mediation between the emotional component of online CBE and brand advocacy in Study 4 and Study 3. In Study 2, relationship quality does not provide any mediation between the emotional component of online CBE and brand advocacy. In Study 1, relationship quality provides full mediation with indirect effect only of relationship quality between the emotional component of online CBE and brand advocacy.

In Study 4, relationship quality fully mediates the emotional component of online CBE and brand preference. In Study 3, relationship quality fully mediates with indirect effects only the emotional component of online CBE and brand preference. In Study 2 and pilot Study 1, the relationship quality does not provide any mediation between the emotional component of online CBE and brand preference.

There is full mediation by relationship quality between the emotional component of online CBE and purchase intention in Study 4. In Study 3, relationship quality provides full mediation with indirect effect only between the emotional component of online CBE and purchase intention. In Study 2 and pilot Study 1, relationship quality does not provide any mediation between the emotional component of online CBE and purchase intention.

The results demonstrate that relationship quality is a strong mediator between the emotional component of CBE and brand advocacy, brand preference, loyalty and purchase intention. The implications of this study are that a mediator is required between the emotional component of online CBE and its consequences. Without the mediator, the emotional component of online customer engagement would not have an impact on some of its consequences. Brand managers needs to pay special attention of potential mediators so that the emotional component of online CBE could have an impact on its consequences.

Relationship quality mediating the behavioural component of online CBE and its consequences

The results of Study 4 and Study 2 show that the behavioural component of online CBE has an impact on relationship quality. Study 3 and pilot Study 1 show that the behavioural component of online CBE has no impact on relationship quality. An analysis of the direct effects of the behavioural component of online CBE on its consequences shows varied results. In Study 4, the behavioural component of online CBE has no direct effect on loyalty while in Study 3, Study 2, and pilot Study 1, it has a direct effect. The behavioural component of online CBE has no direct effect on brand advocacy in Study 4, Study 3, and Study 2 while it has a direct effect in Study 1. The behavioural component of online CBE has a direct effect on brand preference in all four studies, namely, Study 4, Study 3, Study 2, and pilot Study 1. In Study 4, Study 3, Study 2, and pilot Study 1, the behavioural component of online CBE has no direct effect on purchase intention.

Relationship quality provides, between the behavioural component of online CBE and loyalty, full mediation in Study 4 and partial mediation in Study 2. Relationship quality does not provide any mediation between the behavioural component of online CBE and loyalty in Study 3 and pilot Study 1.

The mediation analysis shows that relationship quality provides full mediation between the behavioural component of online CBE and brand advocacy in Study 4. In Study 3 and pilot Study 1, relationship quality does not provide any mediation between the behavioural component of online CBE and brand advocacy. In Study 2, relationship quality provides full mediation with indirect effects only between the behavioural component of online CBE and brand advocacy.

Relationship quality provides partial mediation between the behavioural component of online CBE and brand preference in Study 4 and Study 2. In Study 3 and pilot Study 1, relationship quality does not provide any mediation between the behavioural component of online CBE and brand preference.

In Study 4, relationship quality provides full mediation between the behavioural component of online CBE and purchase intention. In Study 3, Study 2 and pilot Study 1, relationship quality does not provide any mediation between the behavioural component of online CBE and purchase intention.

A comparison of Study 3 done in South Africa and Study 4 done in Kenya shows different patterns on the mediating effect of relationship quality between the behavioural component of online CBE and its consequences. This could be due to the fact that Kenya and South Africa are different emerging markets. The implication of these results could be that the mediating effect of relationship quality between the behavioural component of online CBE could be dependent on the context of the study.

An analysis of the results shows that the relationship quality mediates the components of online CBE with its consequences. In some instances, relationship quality has full mediation, implying that no effect would be seen if there was no relationship quality as a mediator. The role of mediators between online CBE and its consequences needs to be investigated further.

9.4 Limitations

Research design

In using a quantitative approach, the quality of the data collected has an impact on the results obtained. The researcher used Qualtrics to do online data collection. Each respondent answered the questionnaire to the best of their knowledge and there was no one to explain it to them. The results obtained are a function of the decisions made in designing the research. The researcher had to select statistical information based on the understanding and the information the researcher needed to show. Self-selected brands used in the questionnaire, purposive sampling and a cross-sectional study limit the generalisability of the research.

Difficulty in getting respondents in B2B studies

In South Africa, the researcher had to collect two sets of data because he could not get enough respondents in the initial research. Companies in B2B in South Africa are reluctant for their employees to participate in surveys. Other companies in South Africa in B2B makes their employees sign non-disclosure agreements making it difficult for the employees to participate in any survey. It is difficult for the employees to determine whether the information they would provide in the surveys is allowed or not allowed to be shared with third parties based on the non-disclosure agreement they would have signed.

9.5 Theoretical implications

Online CBE model

This research comes up with a conceptual model for online CBE and its consequences in ICT in B2B in an emerging market. This model could be used to study online CBE in different contexts. The importance of mediation between the online customer brand engagement and its consequences is brought to the fore.

Antecedents of online CBE

The results obtained show that all the selected antecedents have an impact on the cognitive, emotional, and behavioural component of online CBE. These antecedents, namely, involvement, brand equity, participation, and brand love effect size ranges from small, medium to large. Bolton (2011) calls for the study of the relationship between existing marketing constructs like brand equity and engagement. The research, in response to Junaid et al.'s (2019) calls, add to the body of knowledge of the relationship between brand love and brand engagement. The research shows that brand love has an impact on all three components of online CBE. The multidimensional conceptualisation of the online CBE appears to be appropriate as the different antecedents have a different impact on each of the components of online CBE.

Impact of online CBE on relationship quality

When reviewing all the studies in this research, the results suggests that all three components of online CBE, namely, the cognitive, emotional, and behavioural, have an impact on relationship quality. This advances the notion that undoubtedly online CBE is a relational construct. Each component of online CBE in the different studies has different effects on relationship quality indicating that it could be prudent to use a multidimensional conceptualisation of online CBE.

Effect of relationship quality on online CBE consequences

In this study, relationship quality has an impact on all the selected consequences of online CBE, namely, loyalty, brand advocacy, brand preference and purchase intentions. These findings are in line with other studies where relationship quality was studied with constructs like the selected consequences of online CBE. De Cannière et al.'s (2010) empirical research concludes that relationship quality has an impact on purchase intention. Jin and Weber (2013) illustrate that relationship quality has an impact on exhibition brand preference.

Badrinarayanan and Sierra (2018) found that front line employees' relationship quality with the vendor is related to the brand advocacy the front-line employees are willing to provide to the vendor's products. Adhikari and Panda (2019) illustrate that relationship quality has an impact on brand loyalty in their study of how CBE drive loyalty. Khan et al. (2022) found that relationship quality has no impact on loyalty intention in the use of mobile applications or desktop browsers.

Mediation role of relationship quality on online CBE and its consequences

Indications from the results obtained are that relationship quality is playing a major mediating role between the dimensions of online CBE and the consequences of online CBE. There is partial mediation and full mediation. The full mediation with indirect effects only shows that some of the online CBE components needs relationship quality as a mediator for them to have any impact on their consequences. Without the mediating role of relationship quality, some of the online CBE dimensions would not have an impact on their consequences in this context of ICT companies in B2B in an emerging market. Additional studies are required to explore other mediators of the cognitive, emotional, and behavioural components of online CBE and their consequences.

9.6 Managerial implications

Additional insights in understanding online CBE

This research provides additional insights into the understanding of online CBE in B2B in an emerging market. It emphasises the point that online CBE is a relational concept. Businesses, brand managers and company web developers need to take this into account as they review and develop their own online CBE strategies. This research provides business and brand managers with ideas on how to approach online customer brand engagement in B2B and the potential roll antecedents like involvement, brand equity, participation and brand love could play.

Support for multidimensional conceptualisation of online CBE

A multidimensional approach to online CBE is better because each of the online CBE factors, namely, the cognitive, emotional and behaviour, are affected by the antecedents differently and each one has a different effect on the consequences. This understanding will potentially assist brand managers to identify and select which component to manipulate for a particular desired effect.

Mediation between online CBE and its consequences

Some components, like the cognitive component of online CBE, had no effect on some consequences without the relationship quality as a mediator. Relationship quality as a mediator was found to amplify the effect of online CBE on its consequences. Besides relationship quality, there could be other mediators which the brand managers could use to amplify the consequences of online CBE. Brand managers needs to explore other mediators between the components of online CBE and their consequences.

Strategies to manipulate customer online CBE

The brand managers could use online CBE to develop strategies on how to manipulate their customer's loyalty, brand advocacy, brand preference and purchase intention. Digital business has become quite important, especially after the recent Covid-19 pandemic where people worked from home and customers were engaging businesses online. This research could be used as an input when companies formulate their digital business strategies. Digital business involves online CBE.

9.7 Recommendations and areas of future study

Additional studies of the cognitive component of online CBE

Additional work is required to determine why the cognitive component of online CBE has less direct impact on loyalty, brand advocacy, brand preference and purchase intention but has an impact on these consequences when mediated by relationship quality. Relationship

quality amplified the consequences of online CBE. Research to identify additional mediators is recommended.

Studies in different contexts

Engagement is a contextual concept. This study was done in B2B in the ICT industry in the emerging markets of South Africa and Kenya. The researcher recommends doing similar additional studies in different B2B industries. More studies could be done in B2C to compare the results with the studies done in B2B.

Review cyclic nature of customer engagement

This research is a descriptive quantitative study, and it shows relationships among constructs but is weak on causality. Theory suggests that the engagement concept is cyclic. It would be interesting to design experimental studies to verify causality between the constructs of online CBE in B2B in the ICT industry.

Different research designs

The research design was cross-sectional. A longitudinal study could review how the constructs of online CBE are evolving as technology is evolving over time. A self-selected brand from a list provided was used in this study by the respondents creating potential bias. A recommendation would be to do a study using a researcher selected brand. However, there could be challenges to get a brand which would be applicable to all the potential respondents.

9.8 Conclusions and knowledge gap addressed

Online CBE model

In this study, the researcher came up with a model of online CBE in B2B. The model is tested in the ICT industry in emerging markets of South Africa and Kenya. The study

found that involvement, brand equity, participation and brand love are antecedents of online CBE. The effect of these antecedents varies on each of component of online CBE, namely, cognitive, emotional, and behavioural. The results show that loyalty, brand advocacy, and brand preference are consequences of the cognitive, emotional, and behavioural components of online brand engagement when mediated by relationship quality.

Support for multidimensional conceptualisation of online CBE and consequences

The multidimensional conceptualisation of online CBE was found to be appropriate because it enables information applicable to each construct to be deciphered. The consequences of online CBE were found to be loyalty, brand advocacy, brand preference and purchase intention. The effect of each component on loyalty, brand advocacy, brand preference and purchase intention is different. Relationship quality plays a key role in amplifying the effects of online CBE onto its consequences.

Emerging markets and brand love as antecedent of online customer engagement

The identified knowledge gap which the research addressed was literature driven. This research situates the B2B branding studies in emerging markets in response to Seyedghorban et al.'s (2016) call. The findings indicate that brand love is an antecedent of online CBE . Junaid et al. (2019) recommend the study of the relationship between brand love and engagement.

Marketing science institute engagement as a top research priority

The Marketing Science Institute (MSI) include the customer engagement as a top research priority from 2014-2024. The recommended areas of study include conceptualising customer engagement, designing a company's physical and digital offering to engage customers and strategies to have customers have a deeper engagement with customers. The results of this study contribute to the conceptualisation of customer engagement. It will assist companies on what strategies to use when engaging customers and in the development of the companies' digital offerings.

Bolton (2011), Hollebeek et al. (2014), as well as Junaid et al. (2019, recommend work to provide additional insights into the drivers and consequences of engagement. In the current study, the researcher tested a number of antecedents and consequences of online CBE. This study shows the potential role mediators could play between online CBE and its consequences. Relationship quality was used as a mediator amplifying the effects of online CBE on its consequences. Additional work is required to identify more mediators between online CBE and its consequences.

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Appendix A: Questionnaire South Africa

Q1 Introduction

This is a survey to gauge how you feel about supplier websites within the ICT sector in South Africa. Could you select a supplier from the list provided whose website you visited during the purchasing process. Could you base your answers in the rest of the survey on the supplier you would have selected. Your responses will be kept confidential.

Participation

The study should take you around fifteen minutes to complete. If you would like to contact the principal investigator in the study to discuss this research, please e-mail Tonderai Sibanda on tonderai.sibanda@.wits.ac.za

Acceptance to participate

In clicking the button below, you acknowledge that your participation in the study is voluntary. You acknowledge that you are above 18 years of age. You may choose to terminate your participation in the study at any time.

1	I consent, begin the study
2	I do not consent; I do not wish to participate

Demographic questions

Q2 What is your gender?

1	Female
2	Male

Q3 How old are you?

1	Below 24 years
2	24-35 years
3	36-45 years
4	46-55 years
5	Above 55 years

Q4 What is your highest educational level ?

Please indicate your educational level	
1	No high school certificate
2	High School Certificate
3	Diploma
4	Degree
5	Masters
6	PhD

Q5 What best describes the size of the company you work for?

1	5 and less employees
2	6 - 20 employees
3	21 - 50 employees
4	51 - 200 employees
5	201 - 500 employees
6	501 employees and above

Q6 What best describes your job function?

1	Engineer
2	Accountant
3	Sales
4	Marketing
5	Procurement
6	Commercial
7	Legal
8	Specialist
9	Manager
10	Head of department
11	Executive

Q7 What best describes your role in the purchasing process?

1	End user
2	Design Solution
3	Recommend Solution
4	Approve
5	Process the purchase
6	None of the above

Q8 Could you select one supplier website you visited during any of your purchasing processes.

Could you select one supplier website you visited during any of your purchasing processes.	
1	ZTE
2	Huawei
3	Nokia
4	Ericsson
5	Ciena
6	Miro Distribution
7	Scoop Distribution
8	Switchcomm Distribution
9	Pinnacle Distribution
10	Duxbury Distribution
11	Siemens
12	Inifinera
13	Tejas
14	Cisco
15	Juniper
16	Arista
17	Mikrotik
18	Calix
19	Dasazhone
20	IBM
21	Dell
22	Hewlett Packard

Main survey questions

Based on the website you visited and you selected in this questionnaire, could you answer the following questions;

Q9 Could you rate the brand of the website you selected in question 8 based on the criteria below?
Involvement adapted from Zaichkowsky (1994); Hollebeek et al. (2014)

		1	2	3	4	5	6	7	
INV1	Unimporant								Important
INV2	Boring								Interesting
INV3	Irrelevant								Relevant
INV4	Unexciting								Exciting
INV5	Means Nothing to me								Means a lot to me
INV6	Unappealing								Appealing
INV7	Mundance								Fascinating
INV8	Worthless								Valuable
INV9	Uninvolving								Involving
INV10	Not-needed								Needed

Q10 To what extent do you agree or disagree with the following statements regarding brand awareness with reference to the website you selected in question 8?Brand awareness adapted from Yoo, Donthu and Lee (2000); Yoo and Donthu (2001)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand awareness with reference to the website you accessed during the purchasing process.						
		Strongly Disagree	**Disagree**	**Neither Agree or Disagree**	**Agree**	**Strongly Agree**
BAW1	I know what the brand of the website I visited look like	1	2	3	4	5
BAW2	I can recognise the brand of the website I visited among competing brands.	1	2	3	4	5
BAW3	I am aware of the brand of the website I visited.	1	2	3	4	5

Q11 To what extent do you agree or disagree with the following statement regarding uniqueness of brand associations with reference to the website you selected in question 8? Uniqueness of Brand Associations adapted from Netemeyer, Krishan, Pullig, Wang, Yagci, Dean, Riscks and Wirth (2004)

Please could you indicate to what extent you agree or disagree with the following statements regarding uniqueness of brand associations with reference to the brand of the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
UBA1	The brand of the website I visited is distinct from other brand of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7
UBA2	The brand of the website I visited really stands out from other brands of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7
UBA3	The brand of the website I visited is quite different from other brands of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7
UBA4	The brand of the website I visited is unique from other brands of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7

Q12 To what extent do you agree or disagree with the following statements regarding perceived quality with reference to the website you selected in question 8?

Perceived quality adapted from Yoo, Donthu and Lee (2000);

Please could you indicate to what extent you agree or disagree with the following statements regarding brand associations with reference to the website you accessed during the purchasing process						
		Strongly Disagree	**Disagree**	**Neither Agree or Disagree**	**Agree**	**Strongly Agree**
QL1	The brand of the website I visited is of high quality	1	2	3	4	5
QL2	The likely quality of the brand of the website I visited is high.	1	2	3	4	5
QL3	The likelihood that the brand of the website I visited would be functional is very high.	1	2	3	4	5
QL4	The likelihood that the brand of the website I visited is reliable is very high.	1	2	3	4	5
QL5	The brand of the website I visited is of very good quality	1	2	3	4	5

Q13 To what extent do you agree or disagree with the following statements regarding participation with reference to the website you selected in question 8?

Participation adapted from Eisingerich, Auh and Merlo (2013); Leckie, Nyadzayo and Johnson (2016)

Please could you indicate to what extent you agree or disagree with the following statements regarding participation with reference to the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
PAR1	If I have a useful idea on how to improve the brand of the website, I visited I will give it to someone at that company.	1	2	3	4	5	6	7
PAR2	I make constructive suggestion to the brand of the website I visited to improve its offering.	1	2	3	4	5	6	7
PAR3	I let the brand of the website I visited know of better ways it can better serve me.	1	2	3	4	5	6	7
PAR4	I spent a lot of time sharing information about the brand of the website I visited.	1	2	3	4	5	6	7

Q14 To what extent do you agree or disagree with the following statements regarding brand love with reference to the website you selected in question 8?

Brand love adapted from Carrol and Ahuvia (2006)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand love with reference to the website you accessed during the purchasing process.						
		Strongly Disagree	**Disagree**	**Neither Agree or Disagree**	**Agree**	**Strongly Agree**
BL1	The brand of the website I visited is wonderful.	1	2	3	4	5
BL2	The brand of the website I visited makes me feel good.	1	2	3	4	5
BL3	The brand of the website I visited is total awesome.	1	2	3	4	5
BL4	I have neutral feeling of the brand of the website I visited.	1	2	3	4	5
BL5	The brand of the website I visited makes me very happy.	1	2	3	4	5
BL6	I love the brand of the website I visited.	1	2	3	4	5
BL7	I have no particular feeling of the brand of the website I visited.	1	2	3	4	5
BL8	The brand of the website I visited is pure delight.	1				
BL9	I am passionate of the brand of the website I visited.	1	2	3	4	5
BL10	I am attached to the brand of the website I visited.	1	2	3	4	5

Q15 To what extent do you agree or disagree with the following statements regarding the cognitive of online CBE with reference to the website you selected in question 8?

Cognitive of online CBE adapted from Hollebeek et al. (2014)

Please could you indicate to what extent you agree or disagree with the following statements regarding the cognitive of online customer brand engagement with reference to the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
CF1	Using this company's website gets me to think about this company and its website.	1	2	3	4	5	6	7
CF2	I think about this company's website a lot when I am using it.	1	2	3	4	5	6	7
CF3	Using this company's website stimulates my interest to learn about this company and its website.	1	2	3	4	5	6	7

Q16 To what extent do you agree or disagree with the following statements regarding the emotional of online CBE with reference to the website you selected in question 8?

Emotional of online CBE adapted from Hollebeek et al. (2014)

Please could you indicate to what extent you agree or disagree with the following statements regarding the emotional of online customer brand engagement with reference to the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
EF1	I feel very positive when I use this company's website.	1	2	3	4	5	6	7
EF2	Using this company's website makes me happy.	1	2	3	4	5	6	7
EF3	I feel good when I use this company's website.	1	2	3	4	5	6	7
EF4	I am proud to use this company's website.	1	2	3	4	5	6	7

Q17 To what extent do you agree or disagree with the following statements regarding the behavioural of online CBE with reference to the website you selected in question 8?

Behavioural of online CBE adapted from Hollebeek et al. (2014)

Please could you indicate to what extent you agree or disagree with the following statements regarding the behavioural of online customer brand engagement with reference to the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
BF1	I spend a lot of time using this company's website compared to websites of other information and communication technology (ICT) suppliers.	1	2	3	4	5	6	7
BF2	When I am using ICT equipment suppliers websites, I normally use this company's website.	1	2	3	4	5	6	7
BF3	This company website is one of the brands I normally visit when I am visiting ICT suppliers websites.	1	2	3	4	5	6	7

Q18 To what extent do you agree or disagree with the following statements regarding trust with reference to the brand of the website you selected in question 8?

Trust adapted from Gefen, Karahanna and Straub (2003); Mukherjee and Nath (2003);Thakur (2018)

Please could you indicate to what extent you agree or disagree with the following statements regarding trust with reference to the brand of the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
TR1	I think that the brand deliver authentic products to meet the needs of the customers.	1	2	3	4	5	6	7
TR2	I think that the brand is concerned with the present and future interests of its users.	1	2	3	4	5	6	7
TR3	I think the brand offer good quality products to meet the needs of the users.	1	2	3	4	5	6	7

Q19 How do you view the brand of the website you selected in question 8?

Customer satisfaction adapted from Crosby, Evans and Cowles (1990); Dorsch, Swanson and Kelley (1998)

Please could you indicate how you are satisfied with the brand of the website you accessed during the purchasing process.									
		1	2	3	4	5	6	7	
CS1	Dissatisfied	1	2	3	4	5	6	7	Satisfied
CS2	Displeased	1	2	3	4	5	6	7	Pleased
CS3	Unfavourable	1	2	3	4	5	6	7	Favourable

Q20 To what extent do you agree or disagree with the following statements regarding your commitment to the brand of the website you selected in question 8?

Commitment adapted from Garbarino and Johnson (1999)

Please could you indicate to what extent you agree or disagree with the following statements regarding your commitment to the brand of the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
CM1	I am proud to work with this supplier	1	2	3	4	5	6	7
CM2	I feel a sense of belonging to this supplier	1	2	3	4	5	6	7
CM3	I care about a long-term relationship with this supplier	1	2	3	4	5	6	7
CM4	I am a faithful patron of this supplier							

Q21 To what extent do you agree or disagree with the following statements regarding brand loyalty to the brand of the website you selected in question 8?

Loyalty adapted from Zeithaml, Berry and Prasuraman (1996); Srinivsan, Anderson, and Ponnavolu (2002)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand loyalty to the brand of the you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
LY1	I seldom consider switching to another supplier.	1	2	3	4	5	6	7
LY2	As long as the present services continue, I doubt I will switch supplier.	1	2	3	4	5	6	7
LY3	I try to use this supplier whenever I need to make a purchase	1	2	3	4	5	6	7
LY4	When I need to make a purchase, this supplier is my first choice	1	2	3	4	5	6	7
LY5	I like using this supplier.	1	2	3	4	5	6	7
LY6	To me this supplier is the best supplier to do business with.	1	2	3	4	5	6	7
LY7	I believe this is my best supplier for equipment.	1	2	3	4	5	6	7

Q22 To what extent do you agree or disagree with the following statements regarding brand advocacy towards the brand of the website you selected in question 8?

Brand advocacy BA1 adapted from Pai, Lai, Chiu and Yang (2015); Bhattachrya and Sen (2003); BA2 adapted from Pai et al. (2015); Aaker (1996); Zeithaml et al. (1996); BA3 adapted from Pai et al. (2015); Klein and Dawar (2004); Peloza (2006)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand advocacy towards the brand of the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
BA1	I would like to try new products or services introduced under the brand name of the brand website I visited.	1	2	3	4	5	6	7
BA2	I talk favourably about the brand's products and services of the brand website I visited to friends and family.	1	2	3	4	5	6	7
BA3	If the supplier of the brand's products or services of the brand website I visited did something I did not like, I would be willing to give that supplier another chance.	1	2	3	4	5	6	7

Q23 To what extent do you agree or disagree with the following statements regarding brand preference with reference to the website you selected in question 8?

Brand preference adapted from Jamal and Goode (2001)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand preference with reference to the website you accessed during the purchasing process.						
		Strongly Disagree	**Disagree**	**Neither Agree nor Disagree**	**Agree**	**Strongly Agree**
BP1	I like the brand of the website I visited better than any brand of information and communication technology (ICT) equipment.	1	2	3	4	5
BP2	I would use the brand of the website I visited more than any other brand of ICT equipment.	1	2	3	4	5
BP3	The brand of the website I visited is my preferred brand over any other brand of ICT equipment.	1	2	3	4	5
BP4	I would be inclined to buy the brand of the website I visited over any other brand of ICT equipment.	1	2	3	4	5

Q24 To what extent do you agree or disagree with the following statements regarding purchase intention with reference to the brand of the website you selected in question 8?
Purchase intention adapted from Dodds, Monroe and Grewal (1991); Bian and Forsythe (2012)

Please could you indicate to what extent you agree or disagree with the following statements regarding purchase intention with reference to the brand of the website you visited as indicated in question 7 (ZTE,Huawei, Nokia, Ericsson , Ciena or Cisco)								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
PI1	If I were going to purchase ICT equipment, I would consider buying brands of the website I visited.	1	2	3	4	5	6	7
PI2	If I were shopping for ICT equipment, the likelihood I would purchase products or services of the brands of the website I visited is high.	1	2	3	4	5	6	7
PI3	My willingness to buy products or services of the brands of the website I visited would be high if I were shopping for ICT equipment.	1	2	3	4	5	6	7
PI4	The probability I would consider buying products or services of the website I visited is high.	1	2	3	4	5	6	7

Appendix B: Questionnaire Kenya

Q1 Introduction

This is a survey to gauge how you feel about supplier websites within the ICT sector in Kenya. Could you select a supplier from the list provided whose website you visited during the purchasing process. Could you base your answers in the rest of the survey on the supplier you would have selected. Your responses will be kept confidential.

Participation

The study should take you around fifteen minutes to complete.

Acceptance to participate

In clicking the button below, you acknowledge that your participation in the study is voluntary. You acknowledge that you are above 18 years of age. You may choose to terminate your participation in the study at any time.

1	I consent, begin the study
2	I do not consent; I do not wish to participate

Demographic questions

Q2 What is your gender?

1	Female
2	Male

Q3 How old are you?

1	Below 24years
2	24-35 years
3	36-45 years
	46 -55 years
4	Above 55 years

Q4 What is your highest educational level ?

Please indicate your educational level	
1	No high school certificate
2	High School Certificate
3	Diploma
4	Degree
5	Masters
6	PhD

Q5 What best describes the size of the company you work for?

1	Five and less employees
2	6 – 20 employees
3	21 – 50 employees
4	51 – 200 employees
5	201 – 500 employees
6	501 employees and above

Q6 What best describes your job function?

1	Engineer
2	Accountant
3	Sales
4	Marketing
5	Procurement
6	Commercial
7	Legal
8	Specialist
9	Manager
10	Head of department
11	Executive

Q7 What best describes your role in the purchasing process?

1	End user
2	Design Solution
3	Recommend Solution
4	Approve
5	Process the purchase
6	None of the above

Q8 Could you select one supplier website you visited during any of your purchasing processes.

1	ZTE
2	Huawei
3	Nokia
4	Ericsson
5	Ciena
6	Siemens
7	Inifinera
8	Tejas
9	Cisco
10	Juniper
11	Arista
12	Mikrotik
13	Calix
14	Dasazhone
15	IBM
16	Dell
17	Hewlett Packard

Main survey questions

Based on the website you visited and you selected in this questionnaire, could you answer the following questions;

Q9 Could you rate the brand of the website you selected in question 8 based on the criteria below?
Invovlement adapted from Zaichkowsky (1994); Hollebeek et al. (2014)

		1	2	3	4	5	6	7	
INV1	Unimporant								Important
INV2	Boring								Interesting
INV3	Irrelevant								Relevant
INV4	Unexciting								Exciting
INV5	Means Nothing to me								Means a lot to me
INV6	Unappealing								Appealing
INV7	Mundance								Fascinating
INV8	Worthless								Valuable
INV9	Uninvolving								Involving
INV10	Not-needed								Needed

Q10 To what extent do you agree or disagree with the following statements regarding brand awareness with reference to the website you selected in question 8?

Brand awareness adapted from Yoo, Donthu and Lee (2000); Yoo and Donthu (2001)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand awareness with reference to the website you accessed during the purchasing process.

		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
BAW1	I know what the brand of the website I visited look like	1	2	3	4	5
BAW2	I can recognise the brand of the website I visited among competing brands.	1	2	3	4	5
BAW3	I am aware of the brand of the website I visited.	1	2	3	4	5

Q11 To what extent do you agree or disagree with the following statement regarding uniqueness of brand associations with reference to the brand of the website you selected in question 8?

Uniqueness of Brand Associations adapted from Netemeyer, Krishan, Pullig, Wang, Yagci, Dean, Riscks and Wirth (2004)

Please could you indicate to what extent you agree or disagree with the following statements regarding uniqueness of brand associations with reference to the brand of the website you accessed during the purchasing process.

		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
UBA1	The brand of the website I visited is distinct from other brand of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7
UBA2	The brand of the website I visited really stands out from other brands of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7
UBA3	The brand of the website I visited is quite different from other brands of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7
UBA4	The brand of the website I visited is unique from other brands of information and communications technology industry equipment suppliers.	1	2	3	4	5	6	7

Q12 To what extent do you agree or disagree with the following statements regarding perceived quality with reference to the website you selected in question 8?

Perceived quality adapted from Yoo, Donthu and Lee (2000)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand associations with reference to the website you accessed during the purchasing process						
		Strongly Disagree	**Disagree**	**Neither Agree or Disagree**	**Agree**	**Strongly Agree**
QL1	The brand of the website I visited is of high quality	1	2	3	4	5
QL2	The likely quality of the brand of the website I visited is high.	1	2	3	4	5
QL3	The likelihood that the brand of the website I visited would be functional is very high.	1	2	3	4	5
QL4	The likelihood that the brand of the website I visited is reliable is very high.	1	2	3	4	5
QL5	The brand of the website I visited is of very good quality	1	2	3	4	5

Q13 To what extent do you agree or disagree with the following statements regarding participation with reference to the website you selected in question 8?

Participation adapted from Eisingerich, Auh and Merlo (2013); Leckie, Nyadzayo and Johnson (2016)

		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
PAR1	If I have a useful idea on how to improve the brand of the website, I visited I will give it to someone at that company.	1	2	3	4	5	6	7
PAR2	I make constructive suggestion to the brand of the website I visited to improve its offering.	1	2	3	4	5	6	7
PAR3	I let the brand of the website I visited know of better ways it can better serve me.	1	2	3	4	5	6	7
PAR4	I spent a lot of time-sharing information about the brand of the website I visited.	1	2	3	4	5	6	7

Q14 To what extent do you agree or disagree with the following statements regarding brand love with reference to the website you selected in question 8? Brand love adapted from Carrol and Ahuvia (2006)

		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
BL1	The brand of the website I visited is wonderful.	1	2	3	4	5
BL2	The brand of the website I visited makes me feel good.	1	2	3	4	5
BL3	The brand of the website I visited is total awesome.	1	2	3	4	5
BL4	I have neutral feeling of the brand of the website I visited.	1	2	3	4	5
BL5	The brand of the website I visited makes me very happy.	1	2	3	4	5
BL6	I love the brand of the website I visited.	1	2	3	4	5
BL7	I have no particular feeling of the brand of the website I visited.	1	2	3	4	5
BL8	The brand of the website I visited is pure delight.	1				
BL9	I am passionate of the brand of the website I visited.	1	2	3	4	5
BL10	I am attached to the brand of the website I visited.	1	2	3	4	5

Q15 To what extent do you agree or disagree with the following statements regarding the cognitive of online CBE with reference to the website you selected in question 8?

Cognitive of online CBE adapted from Hollebeek et al. (2014)

		Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly Agree	Agree	Strongly Agree
CF1	Using this company's website gets me to think about this company and its website.	1	2	3	4	5	6	7
CF2	I think about this company's website a lot when I am using it.	1	2	3	4	5	6	7
CF3	Using this company's website stimulates my interest to learn about this company and its website.	1	2	3	4	5	6	7

Q16 To what extent do you agree or disagree with the following statements regarding the emotional of online CBE with reference to the website you selected in question 8?

Emotional of online CBE adapted from Hollebeek et al. (2014)

		Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly Agree	Agree	Strongly Agree
EF1	I feel very positive when I use this company's website.	1	2	3	4	5	6	7
EF2	Using this company's website makes me happy.	1	2	3	4	5	6	7
EF3	I feel good when I use this company's website.	1	2	3	4	5	6	7
EF4	I am proud to use this company's website.	1	2	3	4	5	6	7

Q17 To what extent do you agree or disagree with the following statements regarding the behavioural of online CBE with reference to the website you selected in question 8?

Behavioural of online CBE adapted from Hollebeek et al. (2014)

		Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly Agree	Agree	Strongly Agree
BF1	I spend a lot of time using this company's website compared to websites of other information and communication technology (ICT) suppliers.	1	2	3	4	5	6	7
BF2	When I am using ICT equipment suppliers websites, I normally use this company's website.	1	2	3	4	5	6	7
BF3	This company website is one of the brands I normally visit when I am visiting ICT suppliers websites.	1	2	3	4	5	6	7

Q18 To what extent do you agree or disagree with the following statements regarding trust with reference to the brand of the website you selected in question 8?

Trust adapted from Gefen, Karahanna and Straub (2003); Mukherjee and Nath (2003);Thakur (2018)

		Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly Agree	Agree	Strongly Agree
TR1	I think that the brand deliver authentic products to meet the needs of the customers.	1	2	3	4	5	6	7
TR2	I think that the brand is concerned with the present and future interests of its users.	1	2	3	4	5	6	7
TR3	I think the brand offer good quality products to meet the needs of the users.	1	2	3	4	5	6	7

Q19 How do you view the brand of the website you selected in question 8?

Customer satisfaction adapted from Crosby, Evans and Cowles (1990); Dorsch, Swanson and Kelley (1998)

		1	2	3	4	5	6	7	
CS1	Dissatisfied	1	2	3	4	5	6	7	Satisfied
CS2	Displeased	1	2	3	4	5	6	7	Pleased
CS3	Unfavourable	1	2	3	4	5	6	7	Favourable

Q20 To what extent do you agree or disagree with the following statements regarding your commitment to the brand of the website you selected in question 8?

Commitment adapted from Garbarino and Johnson (1999)

		Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly Agree	Agree	Strongly Agree
CM1	I am proud to work with this supplier	1	2	3	4	5	6	7
CM2	I feel a sense of belonging to this supplier	1	2	3	4	5	6	7
CM3	I care about a long-term relationship with this supplier	1	2	3	4	5	6	7
CM4	I am a faithful patron of this supplier							

Q21 To what extent do you agree or disagree with the following statements regarding brand loyalty to the brand of the website you selected in question 8? Loyalty adapted from Zeithaml, Berry and Prasuraman (1996); Srinivsan, Anderson, and Ponnavolu (2002)

		Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly Agree	Agree	Strongly Agree
LY1	I seldom consider switching to another supplier.	1	2	3	4	5	6	7
LY2	As long as the present services continue, I doubt I will switch supplier.	1	2	3	4	5	6	7
LY3	I try to use this supplier whenever I need to make a purchase	1	2	3	4	5	6	7
LY4	When I need to make a purchase, this supplier is my first choice	1	2	3	4	5	6	7
LY5	I like using this supplier.	1	2	3	4	5	6	7
LY6	To me this supplier is the best supplier to do business with.	1	2	3	4	5	6	7
LY7	I believe this is my best supplier for equipment.	1	2	3	4	5	6	7

Q22 To what extent do you agree or disagree with the following statements regarding brand advocacy towards the brand of the website you selected in question 8?

Brand advocacy BA1 adapted from Pai, Lai, Chiu and Yang (2015); Bhattachrya and Sen (2003); BA2 adapted from Pai et al. (2015); Aaker 1996; Zeithaml et al. (1996); BA3 adapted from Pai et al. (2015); Klein and Dawar (2004); Peloza (2006)

Please could you indicate to what extent you agree or disagree with the following statements regarding brand advocacy towards the brand of the website you accessed during the purchasing process.								
		Strongly Disagree	**Disagree**	**Slightly disagree**	**Neutral**	**Slightly Agree**	**Agree**	**Strongly Agree**
BA1	I would like to try new products or services introduced under the brand name of the brand website I visited.	1	2	3	4	5	6	7
BA2	I talk favourably about the brand's products and services of the brand website I visited to friends and family.	1	2	3	4	5	6	7
BA3	If the supplier of the brand's products or services of the brand website I visited did something I did not like, I would be willing to give that supplier another chance.	1	2	3	4	5	6	7

Q23 To what extent do you agree or disagree with the following statements regarding brand preference with reference to the website you selected in question 8?

Brand preference adapted from Jamal and Goode (2001

		Strongly Disagree	**Disagree**	**Neither Agree nor Disagree**	**Agree**	**Strongly Agree**
BP1	I like the brand of the website I visited better than any brand of information and communication technology (ICT) equipment.	1	2	3	4	5
BP2	I would use the brand of the website I visited more than any other brand of ICT equipment.	1	2	3	4	5
BP3	The brand of the website I visited is my preferred brand over any other brand of ICT equipment.	1	2	3	4	5
BP4	I would be inclined to buy the brand of the website I visited over any other brand of ICT equipment.	1	2	3	4	5

Q24 To what extent do you agree or disagree with the following statements regarding purchase intention with reference to the brand of the website you selected in question 8?
Purchase intention adapted from Dodds, Monroe and Grewal (1991); Bian and Forsythe (2012)

		Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly Agree	Agree	Strongly Agree
PI1	If I were going to purchase ICT equipment, I would consider buying brands of the website I visited.	1	2	3	4	5	6	7
PI2	If I were shopping for ICT equipment, the likelihood I would purchase products or services of the brands of the website I visited is high.	1	2	3	4	5	6	7
PI3	My willingness to buy products or services of the brands of the website I visited would be high if I were shopping for ICT equipment.	1	2	3	4	5	6	7
PI4	The probability I would consider buying products or services of the website I visited is high.	1	2	3	4	5	6	7

Appendix C: Research contingency matrix

Research Problem : A number of conceptual models have been developed for online customer brand engagement (Brodie et al 2013; Hollebeek et al. 2014; Dessart, Veloutsou and Morgan-Thomas 2015). A conceptual model which fully captures the antecedents and consequences of online customer brand engagement in a business-to-business context within an emerging market is required. This research will use literature to develop a model of online customer brand engagement for emerging markets in a business-to-business context and validate the model using the decision-making unit as the unit of study.			
Research Question 1 **What are the antecedents of online customer brand engagement?**	**Hypothesis** H_{1aA}:Involvement->cognitive component of online CBE H_{1bA}:Involvement-> emotional component of online CBE H_{1cA}:Involvement-> behavioural component of online CBE H_{2aA}: Brand equity->cognitive of online CBE H_{2bA}: Brand equity ->emotional of online CBE H_{2cA}: Brand equity ->behavioural of online CBE H_{3aA}: Participation ->cognitive of online CBE H_{3bA}: Participation ->emotional of online CBE H_{3cA}: Participation ->behavioural of online CBE H_{4aA}: Brand love ->cognitive of online CBE H_{4bA}: Brand love ->emotional of online CBE H_{4cA}: Brand love->behavioural of online CBE	**Methodology** Descriptive quantitative study Online self-administered questionnaire Population Study 1, Study 2 and Study 3: ICT decision makers in B2B in South Africa Population Study 4 : ICT decision makers in B2B in Kenya Sampling Study 1, Study 2 : Purposive sampling for ICT decision makers in B2B in South Africa Sampling Study 3 :Purposive sampling using the Borderless Access panel in ICT in B2B in South Africa Sampling Study 4 : Purposive sampling using Borderless Access panel in ICT in B2B in Kenya	**Data Analysis** SmartPLS 4. Measurement model factor loadings, reliability and validity. Structural equation modeling for hypothesis testing. Structural model quality criteria R-Square, Q-Square, VIF, Hypothesis testing
Research Question 2 **Does online customer brand engagement affect relationship quality?**	H_{5A}: Cognitive of online CBE ->relationship quality H_{6A}: Emotional of online CBE -> relationship quality H_{7A}: Behavioural of online CBE -> relationship quality		
Research Question 3 **Does relationship quality affect the consequences of online customer brand engagement?**	H_{8A}: Relationship quality -> loyalty. H_{9A}: Relationship quality -> brand advocacy. H_{10A}: Relationship quality ->brand preference. H_{11A}: Relationship quality ->purchase intention.		

Appendix D: Measurement model factor loadings pilot study 1 stage 1

Indicator	Construct	Factor loading
Q10_1	Brand awareness	0.90
Q10_2		0.94
Q10_3		0.96
Q11_1	Uniqueness of brand associations	0.91
Q11_2		0.94
Q11_3		0.89
Q11_4		0.87
Q12_1	Perceived quality	0.91
Q12_2		0.91
Q12_3		0.91
Q12_4		0.89
Q12_5		0.92
Q13_1	Participation	0.85
Q13_2		0.95
Q13_3		0.93
Q13_4		0.83

Indicator	Construct	Factor loading
Q14_1	Brand love	0.89
Q14_10		0.88
Q14_2		0.95
Q14_3		0.91
Q14_4		0.50
Q14_5		0.94
Q14_6		0.92
Q14_7		-0.053
Q14_8		0.96
Q14_9		0.92
Q15_1	Cognitive	0.96
Q15_2		0.95
Q15_3		0.96
Q16_1	Emotional	0.97
Q16_2		0.99
Q16_3		0.99
Q16_4		0.99
Q17_1	Behavioural	0.92
Q17_2		0.95
Q17_3		0.95

Indicator	Construct	Factor loading
Q18_1	Trust	0.89
Q18_2		0.91
Q18_3		0.94
Q19_1	Customer satisfaction	0.99
Q19_2		0.99
Q19_3		0.99
Q20_1	Commitment	0.94
Q20_2		0.91
Q20_3		0.92
Q20_4		0.91
Q21_1	Loyalty	0.23
Q21_2		0.88
Q21_3		0.79
Q21_4		0.88
Q21_5		0.79
Q21_6		0.90
Q21_7		0.86
Q22_1	Brand advocacy	0.90
Q22_2		0.95
Q22_3		0.90

Indicator	Construct	Factor loading
Q23_1	Brand preference	0.94
Q23_2		0.96
Q23_3		0.96
Q23_4		0.92
Q24_1	Purchase intention	0.93
Q24_2		0.98
Q24_3		0.98
Q24_4		0.98
Q9_1	Involvement	0.77
Q9_10		0.84
Q9_2		0.81
Q9_3		0.83
Q9_4		0.79
Q9_5		0.78
Q9_6		0.80
Q9_7		0.82
Q9_8		0.91
Q9_9		0.81

Appendix E: Multicolinearity measurement model pilot study 1 stage 1

	outer VIF
Q10_1	4.6
Q10_2	3.5
Q10_3	7.3
Q11_1	4.3
Q11_2	5.4
Q11_3	3.4
Q11_4	2.4
Q12_1	5.9
Q12_2	4.7
Q12_3	4.7
Q12_4	4.5
Q12_5	4.4
Q13_1	2.8
Q13_2	6.2
Q13_3	4.7
Q13_4	2.0

	Outer VIF
Q14_1	7.3
Q14_10	7.8
Q14_2	13.6
Q14_3	9.1
Q14_4	2.7
Q14_5	12.8
Q14_6	11.7
Q14_7	1.5
Q14_8	21.0
Q14_9	8.4
Q15_1	5.9
Q15_2	4.5
Q15_3	5.7
Q16_1	9.2
Q16_2	36.9
Q16_3	35.9
Q16_4	49.5
Q17_1	3.1
Q17_2	4.7
Q17_3	4.8

	Outer VIF
Q18_1	3.2
Q18_2	2.9
Q18_3	5.0
Q19_1	25.6
Q19_2	22.1
Q19_3	34.2
Q20_1	6.8
Q20_2	4.0
Q20_3	5.9
Q20_4	3.8
Q21_1	1.3
Q21_2	4.5
Q21_3	2.9
Q21_4	3.7
Q21_5	2.1
Q21_6	7.7
Q21_7	6.9
Q22_1	2.7
Q22_2	4.0
Q22_3	3.0

	Outer VIF
Q23_1	7.6
Q23_2	8.5
Q23_3	6.8
Q23_4	4.6
Q24_1	5.1
Q24_2	15.2
Q24_3	19.5
Q24_4	16.7
Q9_1	3.2
Q9_10	6.0
Q9_2	3.8
Q9_3	6.1
Q9_4	4.4
Q9_5	3.3
Q9_6	4.5
Q9_7	4.
Q9_8	9.5
Q9_9	4.593

The observables variables are highly correlated and it is not an issue if they have high variance inflation factor (VIF)

Appendix F: Cronbach's alpha, composite reliability and average variance extracted pilot study 1 stage 1

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Customer Satisfaction	0.99	0.99	0.98
Emotional	0.99	0.99	0.97
Purchase Intention	0.98	0.98	0.94
Cognitive	0.95	0.97	0.91
Brand Preference	0.96	0.97	0.89
Perceived Quality	0.95	0.96	0.82
Commitment	0.94	0.96	0.85
Behavioural	0.93	0.96	0.88
Brand awareness	0.93	0.96	0.88
Brand Love	0.93	0.95	0.71
Involvement	0.95	0.95	0.67
Uniqueness of brand associations	0.93	0.95	0.82
Trust	0.91	0.94	0.84
Brand Advocacy	0.91	0.94	0.84
Participation	0.91	0.93	0.80
Loyalty	0.89	0.92	0.63

Appendix G: Fornell-larcker criterion pilot study 1 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust	Uniqueness of brand associations
Behavioural	**0.94**															
Brand Advocacy	0.74	**0.92**														
Brand Love	0.66	0.65	**0.84**													
Brand Preference	0.72	0.66	0.53	**0.94**												
Brand awareness	0.09	0.49	0.42	0.17	**0.94**											
Cognitive	0.80	0.64	0.80	0.56	0.33	**0.96**										
Commitment	0.59	0.82	0.60	0.58	0.45	0.47	**0.92**									
Customer Satisfaction	0.44	0.53	0.52	0.25	0.37	0.49	0.50	**0.991**								
Emotional	0.78	0.63	0.91	0.61	0.31	0.82	0.59	0.60	**0.99**							
Involvement	0.38	0.53	0.60	0.32	0.41	0.51	0.62	0.72	0.62	**0.82**						
Loyalty	0.72	0.79	0.62	0.80	0.31	0.66	0.69	0.40	0.67	0.46	**0.79**					
Participation	0.55	0.44	0.63	0.57	-0.05	0.59	0.41	0.16	0.58	0.26	0.50	**0.89**				
Perceived Quality	0.18	0.42	0.58	0.20	0.73	0.51	0.42	0.37	0.52	0.62	0.37	0.10	**0.91**			
Purchase Intention	0.20	0.13	0.29	0.28	-0.19	0.11	0.15	0.12	0.29	0.22	0.28	0.37	-0.01	**0.97**		
Trust	0.38	0.65	0.52	0.41	0.73	0.47	0.66	0.65	0.55	0.48	0.56	0.14	0.58	0.06	**0.92**	
Uniqueness of brand associations	0.37	0.37	0.63	0.33	0.61	0.59	0.38	0.37	0.49	0.34	0.31	0.26	0.54	-0.02	0.52	**0.91**

Appendix H: HTMT pilot study 1 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust	Uniqueness of brand associations
Behavioural																
Brand Advocacy	0.81															
Brand Love	0.69	0.70														
Brand Preference	0.76	0.71	0.55													
Brand awareness	0.10	0.50	0.44	0.18												
Cognitive	0.85	0.68	0.82	0.59	0.33											
Commitment	0.62	0.88	0.62	0.60	0.46	0.49										
Customer Satisfaction	0.46	0.54	0.52	0.25	0.37	0.498	0.52									
Emotional	0.81	0.66	0.91	0.63	0.30	0.85	0.60	0.60								
Involvement	0.36	0.52	0.62	0.32	0.40	0.52	0.64	0.70	0.61							
Loyalty	0.79	0.81	0.64	0.88	0.32	0.70	0.70	0.40	0.67	0.47						
Participation	0.59	0.50	0.67	0.61	0.08	0.63	0.44	0.16	0.61	0.29	0.55					
Perceived Quality	0.19	0.43	0.58	0.20	0.78	0.52	0.44	0.38	0.52	0.66	0.39	0.14				
Purchase Intention	0.21	0.14	0.30	0.30	0.21	0.11	0.16	0.12	0.30	0.22	0.34	0.40	0.08			
Trust	0.39	0.68	0.52	0.42	0.78	0.49	0.70	0.68	0.56	0.48	0.57	0.14	0.62	0.07		
Uniqueness of brand associations	0.38	0.38	0.66	0.35	0.65	0.61	0.40	0.37	0.49	0.34	0.32	0.29	0.55	0.07	0.55	

Appendix I: VIF structural model pilot study 1 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust	Uniqueness of brand associations
Behavioural							3.135	3.135							3.135	
Brand Advocacy																
Brand Love	4.147					4.147			4.147							
Brand Preference																
Brand awareness	2.838					2.838			2.838							
Cognitive							3.809	3.809							3.809	
Commitment		1.809		1.809							1.809			1.809		
Customer Satisfaction		1.748		1.748							1.748			1.748		
Emotional							3.530	3.530							3.530	
Involvement	1.978					1.978			1.978							
Loyalty																
Participation	2.118					2.118			2.118							
Perceived Quality	3.228					3.228			3.228							
Purchase Intention																
Trust		2.341		2.341							2.341			2.341		
Uniqueness of brand associations	2.312					2.312			2.312							

Appendix J: Coefficient of determination (r-square value) pilot study 1 stage 1

	R-Square	R-Square Adjusted
Behavioural	0.5100	0.4120
Brand Advocacy	0.6990	0.6710
Brand Preference	0.3410	0.2810
Cognitive	0.6860	0.6230
Commitment	0.4000	0.3460
Customer Satisfaction	0.3560	0.2980
Emotional	0.8410	0.8090
Loyalty	0.4910	0.4450
Purchase Intention	0.0320	-0.0550
Trust	0.3130	0.2510

Appendix K: List of companies in study 2

	Company Name
1	Liquid Telecom South Africa Pty Ltd
2	SGT Solutions Pty Ltd
3	Sumit ICT Pty Ltd
4	Axiz Pty Ltd
5	Northpark Pty Ltd
6	LMC Pty Ltd
7	Hambisana Pty Ltd
8	Cell-C Pty Ltd
9	Vumatel Pty Ltd
10	Gijima Pty Ltd
11	Samart Technology Pty Ltd
12	Arm IT Pty Ltd
13	Adnotes Pty Ltd
14	EOH Pty Ltd
15	Xpand IT Pty Ltd
16	Touchit Networks Pty Ltd
17	Comsol Pty Ltd
18	Centracom Pty Ltd
19	Sentech Pty Ltd
20	TWK Communications Pty Ltd
21	Thabure Tower Company Pty Ltd
22	Mitsol Pty Ltd

Appendix L: Outer loadings study 2 stage 1

	Brand awareness
Q10_1	0.97
Q10_2	0.97
Q10_3	0.97
	Uniqueness of brand associations
Q11_1	0.93
Q11_2	0.95
Q11_3	0.94
Q11_4	0.95
	Perceived quality
Q12_1	0.82
Q12_2	0.85
Q12_3	0.90
Q12_4	0.89
Q12_5	0.88
	Participation
Q13_1	0.91
Q13_2	0.95
Q13_3	0.93
Q13_4	0.89
	Brand love
Q14_1	0.71
Q14_2	0.88
Q14_3	0.91
Q14_4	0.91
Q14_5	0.88
Q14_6	0.88
Q14_7	0.84
Q14_8	0.81
	Cognitive
Q15_1	0.89
Q15_2	0.93
Q15_3	0.92
	Emotional
Q16_1	0.91
Q16_2	0.94
Q16_3	0.95
Q16_4	0.91
	Behavioural
Q17_1	0.93
Q17_2	0.96
Q17_3	0.88

	Trust
Q18_1	0.95
Q18_2	0.96
Q18_3	0.92
	Customer satisafaction
Q19_1	0.93
Q19_2	0.97
Q19_3	0.96
	Commitment
Q20_1	0.91
Q20_2	0.89
Q20_3	0.90
Q20_4	0.87
	Loyalty
Q21_1	0.88
Q21_2	0.91
Q21_3	0.96
Q21_4	0.89
Q21_5	0.86
Q21_6	0.89
	Brand advocacy
Q22_1	0.86
Q22_2	0.87
Q22_3	0.90
	Brand preference
Q23_1	0.92
Q23_2	0.95
Q23_3	0.96
Q23_4	0.96
	Purchase intention
Q24_1	0.98
Q24_2	0.97
Q24_3	0.98
Q24_4	0.97
	Involvement
Q9_1	0.77
Q9_10	0.81
Q9_2	0.76
Q9_3	0.86
Q9_4	0.73
Q9_5	0.78
Q9_6	0.86
Q9_7	0.83
Q9_8	0.86
Q9_9	0.86

Appendix M:Model evaluation study 2 stage 1

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)	R-Square Adjusted
Behavioural	0.91	0.94	0.85	0.40
Brand Advocacy	0.85	0.91	0.77	0.64
Brand Love	0.95	0.96	0.73	
Brand Preference	0.96	0.97	0.90	0.63
Brand awareness	0.97	0.98	0.94	
Cognitive	0.90	0.94	0.83	0.49
Commitment	0.91	0.94	0.80	0.53
Customer Satisfaction	0.95	0.97	0.91	0.32
Emotional	0.95	0.96	0.86	0.57
Involvement	0.94	0.95	0.66	
Loyalty	0.95	0.96	0.81	0.60
Participation	0.94	0.96	0.85	
Perceived Quality	0.92	0.94	0.75	
Purchase Intention	0.98	0.99	0.95	0.11
Trust	0.93	0.96	0.88	0.35
Uniqueness of brand associations	0.96	0.97	0.89	

Appendix N: Fornell-larcker study 2 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust	Uniqueness of brand associations
Behavioural	**0.92**															
Brand Advocacy	0.55	**0.88**														
Brand Love	0.55	0.59	**0.85**													
Brand Preference	0.69	0.73	0.71	**0.95**												
Brand awareness	0.44	0.53	0.41	0.37	**0.97**											
Cognitive	0.75	0.65	0.60	0.63	0.48	**0.91**										
Commitment	0.69	0.73	0.54	0.74	0.56	0.68	**0.89**									
Customer Satisfaction	0.50	0.64	0.56	0.49	0.61	0.56	0.54	**0.96**								
Emotional	0.63	0.57	0.75	0.64	0.37	0.76	0.57	0.50	**0.93**							
Involvement	0.55	0.56	0.63	0.51	0.55	0.64	0.57	0.67	0.62	**0.81**						
Loyalty	0.67	0.75	0.63	0.88	0.42	0.57	0.76	0.47	0.57	0.48	**0.90**					
Participation	0.39	0.37	0.50	0.39	0.19	0.49	0.29	0.33	0.44	0.43	0.30	**0.92**				
Perceived Quality	0.41	0.64	0.54	0.45	0.69	0.45	0.51	0.72	0.45	0.64	0.51	0.21	**0.87**			
Purchase Intention	0.30	0.33	0.26	0.35	0.13	0.31	0.28	0.05	0.27	0.12	0.35	0.27	0.13	**0.97**		
Trust	0.54	0.74	0.49	0.52	0.73	0.59	0.69	0.80	0.48	0.54	0.56	0.16	0.75	0.20	**0.94**	
Uniqueness of brand associations	0.59	0.41	0.61	0.44	0.63	0.55	0.42	0.52	0.51	0.57	0.41	0.47	0.57	0.21	0.55	**0.94**

Appendix O: HTMT study 2 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust
and dvocacy	0.62														
Brand Love	0.59	0.67													
Brand Preference	0.74	0.80	0.74												
Brand awareness	0.46	0.58	0.42	0.38											
Cognitive	0.83	0.73	0.65	0.67	0.51										
Commitment	0.76	0.82	0.58	0.79	0.59	0.75									
Customer Satisfaction	0.53	0.71	0.59	0.51	0.63	0.60	0.58								
Emotional	0.68	0.64	0.80	0.67	0.38	0.83	0.61	0.53							
Involvement	0.59	0.63	0.68	0.53	0.57	0.69	0.61	0.71	0.66						
Loyalty	0.72	0.82	0.67	0.92	0.43	0.62	0.81	0.49	0.60	0.50					
Participation	0.42	0.41	0.53	0.42	0.20	0.53	0.31	0.35	0.46	0.46	0.32				
Perceived Quality	0.45	0.71	0.58	0.48	0.73	0.49	0.55	0.76	0.48	0.69	0.54	0.23			
Purchase Intention	0.32	0.37	0.27	0.36	0.13	0.33	0.30	0.05	0.28	0.12	0.37	0.28	0.14		
Trust	0.58	0.82	0.52	0.54	0.76	0.63	0.74	0.85	0.50	0.57	0.58	0.16	0.81	0.21	
Uniqueness of brand associations	0.64	0.46	0.64	0.46	0.65	0.59	0.45	0.54	0.53	0.60	0.43	0.50	0.61	0.22	0.58

Appendix P: Outer loadings study 3 stage 1

Indicator	Construct	Factor loadings
Q10_1	Brand awareness	0.86
Q10_2		0.92
Q10_3		0.88
Q11_1	Uniqueness of brand associations	0.86
Q11_2		0.90
Q11_3		0.87
Q11_4		0.86
Q12_1	Perceived quality	0.90
Q12_2		0.82
Q12_3		0.87
Q12_4		0.86
Q12_5		0.83
Q13_1	Participation	0.85
Q13_2		0.86
Q13_3		0.82
Q13_4		0.80
Q14_1	Brand love	0.78
Q14_2		0.84
Q14_3		0.87
Q14_4		0.87
Q14_5		0.89
Q14_6		0.84
Q14_7		0.86
Q14_8		0.83
Q15_1	Cognitive	0.91
Q15_2		0.90
Q15_3		0.87
Q16_1	Emotional	0.87
Q16_2		0.93
Q16_3		0.95
Q16_4		0.91
Q17_1	Behavioural	0.86
Q17_2		0.90
Q17_3		0.83

Indicator	Construct	Factor loadings
Q18_1	Trust	0.91
Q18_2		0.89
Q18_3		0.89
Q19_1	Customer satisfaction	0.93
Q19_2		0.90
Q19_3		0.93
Q20_1	Commitment	0.89
Q20_2		0.90
Q20_3		0.93
Q20_4		0.86
Q21_1	Loyalty	0.82
Q21_2		0.80
Q21_3		0.85
Q21_4		0.89
Q21_5		0.91
Q21_6		0.87
Q22_1	Brand advocacy	0.89
Q22_2		0.93
Q22_3		0.82
Q23_1	Brand preference	0.89
Q23_2		0.91
Q23_3		0.91
Q23_4		0.82
Q24_1	Purchase intention	0.87
Q24_2		0.95
Q24_3		0.97
Q24_4		0.94
Q9_1	Involvement	0.67
Q9_10		0.85
Q9_2		0.80
Q9_3		0.80
Q9_4		0.84
Q9_5		0.90
Q9_6		0.82
Q9_7		0.86
Q9_8		0.87
Q9_9		0.77

Appendix Q: Evalution of measurement model study 3 stage 1

Lower order construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Behavioural	0.83	0.90	0.75
Brand Advocacy	0.85	0.91	0.77
Brand Love	0.94	0.95	0.72
Brand Preference	0.91	0.93	0.78
Brand awareness	0.87	0.92	0.79
Cognitive	0.87	0.92	0.80
Commitment	0.92	0.94	0.80
Customer Satisfaction	0.91	0.94	0.84
Emotional	0.94	0.95	0.84
Involvement	0.95	0.95	0.67
Loyalty	0.93	0.94	0.73
Participation	0.85	0.90	0.69
Perceived Quality	0.91	0.93	0.73
Purchase Intention	0.95	0.96	0.87
Trust	0.88	0.93	0.81
Uniqueness of brand associations	0.90	0.93	0.76

Appendix R: Fornell-larcker study 3 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust	Uniqueness of brand associations
Behavioural	**0.86**															
Brand Advocacy	0.60	**0.88**														
Brand Love	0.77	0.72	**0.85**													
Brand Preference	0.69	0.72	0.66	**0.88**												
Brand awareness	0.51	0.51	0.57	0.42	**0.89**											
Cognitive	0.71	0.66	0.78	0.66	0.51	**0.89**										
Commitment	0.76	0.73	0.81	0.68	0.64	0.77	**0.90**									
Customer Satisfaction	0.47	0.63	0.62	0.55	0.46	0.57	0.57	**0.92**								
Emotional	0.75	0.69	0.82	0.65	0.57	0.85	0.82	0.62	**0.92**							
Involvement	0.36	0.44	0.43	0.39	0.39	0.47	0.46	0.60	0.51	**0.82**						
Loyalty	0.72	0.83	0.73	0.85	0.48	0.71	0.71	0.66	0.71	0.46	**0.86**					
Participation	0.54	0.49	0.51	0.50	0.42	0.56	0.56	0.29	0.56	0.39	0.48	**0.83**				
Perceived Quality	0.64	0.60	0.73	0.57	0.56	0.65	0.73	0.62	0.72	0.39	0.62	0.43	**0.85**			
Purchase Intention	0.00	-0.01	0.03	-0.03	-0.03	0.04	0.07	0.14	0.02	0.13	0.03	-0.09	0.08	**0.93**		
Trust	0.64	0.70	0.74	0.56	0.61	0.71	0.76	0.61	0.74	0.43	0.64	0.42	0.69	0.07	**0.90**	
Uniqueness of brand associations	0.68	0.58	0.75	0.60	0.63	0.69	0.74	0.50	0.75	0.38	0.62	0.60	0.70	-0.04	0.62	**0.87**

Appendix S: HTMT study 3 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust
Behavioural															
Brand Advocacy	0.72														
Brand Love	0.87	0.81													
Brand Preference	0.79	0.82	0.71												
Brand awareness	0.60	0.59	0.63	0.46											
Cognitive	0.84	0.76	0.86	0.74	0.58										
Commitment	0.87	0.82	0.87	0.75	0.72	0.86									
Customer Satisfaction	0.54	0.72	0.66	0.60	0.51	0.63	0.63								
Emotional	0.85	0.78	0.87	0.71	0.63	0.94	0.89	0.67							
Involvement	0.40	0.48	0.44	0.41	0.41	0.52	0.48	0.64	0.53						
Loyalty	0.82	0.93	0.77	0.93	0.53	0.78	0.76	0.70	0.75	0.48					
Participation	0.64	0.57	0.57	0.57	0.49	0.65	0.63	0.33	0.63	0.43	0.54				
Perceived Quality	0.74	0.69	0.79	0.63	0.63	0.72	0.80	0.68	0.79	0.42	0.67	0.49			
Purchase Intention	0.06	0.04	0.06	0.04	0.05	0.05	0.09	0.15	0.05	0.13	0.06	0.12	0.10		
Trust	0.75	0.81	0.82	0.62	0.70	0.81	0.85	0.68	0.81	0.46	0.69	0.48	0.77	0.09	
Uniqueness of brand associations	0.79	0.67	0.81	0.67	0.72	0.77	0.81	0.55	0.81	0.40	0.68	0.68	0.78	0.07	0.70

Appendix T: Outerloadings study 4 stage 1

	Brand awareness
Q10_1	0.86
Q10_2	0.87
Q10_3	0.89
	Uniqueness of brand associations
Q11_1	0.81
Q11_2	0.88
Q11_3	0.87
Q11_4	0.87
	Perceived quality
Q12_1	0.84
Q12_2	0.83
Q12_3	0.81
Q12_4	0.83
Q12_5	0.77
	Participation
Q13_1	0.76
Q13_2	0.89
Q13_3	0.82
Q13_4	0.80
	Brand love
Q14_1	0.72
Q14_2	0.84
Q14_3	0.82
Q14_4	0.80
Q14_5	0.79
Q14_6	0.82
Q14_7	0.82
Q14_8	0.71
	Cognitive
Q15_1	0.86
Q15_2	0.85
Q15_3	0.87
	Emotional
Q16_1	0.85
Q16_2	0.89
Q16_3	0.90
Q16_4	0.84
	Behavioural
Q17_1	0.82
Q17_2	0.88
Q17_3	0.85

	Trust
Q18_1	0.91
Q18_2	0.90
Q18_3	0.89
	Customer Satisfaction
Q19_1	0.90
Q19_2	0.87
Q19_3	0.91
	Commitment
Q20_1	0.88
Q20_2	0.87
Q20_3	0.88
Q20_4	0.90
	Loyalty
Q21_1	0.66
Q21_2	0.82
Q21_3	0.89
Q21_4	0.85
Q21_5	0.85
Q21_6	0.83
	Brand Advocacy
Q22_1	0.82
Q22_2	0.87
Q22_3	0.71
	Brand Preference
Q23_1	0.87
Q23_2	0.87
Q23_3	0.90
Q23_4	0.87
	Purchase Intention
Q24_1	0.79
Q24_2	0.81
Q24_3	0.85
Q24_4	0.87
	Involvement
Q9_1	0.60
Q9_10	0.74
Q9_2	0.67
Q9_3	0.78
Q9_4	0.79
Q9_5	0.69
Q9_6	0.76
Q9_7	0.76
Q9_8	0.73
Q9_9	0.63

Appendix U: Evaluation of model study 4 stage 1

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)	Adjusted R-Square	Inner VIF	Q^2predict
Behavioural	0.80	0.80	0.72	0.50	1.69	0.47
Brand Advocacy	0.72	0.73	0.64	0.57	1.97	0.41
Brand Love	0.91	0.92	0.62		2.40	
Brand Preference	0.90	0.91	0.78	0.61	1.97	0.39
Brand awareness	0.85	0.86	0.77		1.70	
Cognitive	0.82	0.82	0.74	0.49	2.35	0.45
Commitment	0.91	0.91	0.78	0.61	1.97	0.53
Customer Satisfaction	0.87	0.87	0.79	0.26	1.44	0.30
Emotional	0.89	0.90	0.76	0.71	2.33	0.67
Involvement	0.90	0.90	0.52		1.41	
Loyalty	0.90	0.91	0.68	0.64	1.97	0.42
Participation	0.84	0.84	0.67		1.51	
Perceived Quality	0.88	0.88	0.67		2.26	
Purchase Intention	0.85	0.85	0.69	0.56	1.97	0.37
Trust	0.88	0.88	0.81	0.56	1.95	0.54
Uniqueness of brand associations	0.88	0.89	0.74		2.28	

Appendix V: Fornell-larcker study 4 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust	Uniqueness of brand associations
Behavioural	**0.85**															
Brand Advocacy	0.53	**0.80**														
Brand Love	0.61	0.57	**0.79**													
Brand Preference	0.60	0.61	0.64	**0.88**												
Brand awareness	0.41	0.39	0.52	0.34	**0.88**											
Cognitive	0.60	0.52	0.59	0.53	0.43	**0.86**										
Commitment	0.67	0.72	0.69	0.74	0.44	0.65	**0.88**									
Customer Satisfaction	0.40	0.51	0.58	0.60	0.35	0.33	0.51	**0.89**								
Emotional	0.59	0.61	0.80	0.61	0.55	0.73	0.71	0.50	**0.87**							
Involvement	0.32	0.46	0.50	0.47	0.41	0.28	0.40	0.71	0.47	**0.72**						
Loyalty	0.55	0.68	0.65	0.80	0.36	0.54	0.77	0.58	0.63	0.44	**0.82**					
Participation	0.59	0.52	0.46	0.43	0.43	0.57	0.56	0.25	0.54	0.29	0.43	**0.82**				
Perceived Quality	0.53	0.58	0.68	0.49	0.57	0.57	0.60	0.45	0.70	0.42	0.56	0.44	**0.82**			
Purchase Intention	-0.56	-0.72	-0.59	-0.74	-0.39	-0.53	-0.70	-0.57	-0.61	-0.49	-0.77	-0.41	-0.56	**0.83**		
Trust	0.53	0.64	0.68	0.55	0.61	0.62	0.67	0.50	0.74	0.43	0.61	0.43	0.73	-0.63	**0.90**	
Uniqueness of brand associations	0.59	0.58	0.65	0.51	0.54	0.56	0.59	0.39	0.65	0.41	0.53	0.55	0.63	-0.53	0.67	**0.86**

Appendix W:HTMT study 4 stage 1

	Behavioural	Brand Advocacy	Brand Love	Brand Preference	Brand awareness	Cognitive	Commitment	Customer Satisfaction	Emotional	Involvement	Loyalty	Participation	Perceived Quality	Purchase Intention	Trust
Behavioural															
Brand Advocacy	0.70														
Brand Love	0.71	0.71													
Brand Preference	0.70	0.76	0.71												
Brand awareness	0.50	0.50	0.58	0.39											
Cognitive	0.73	0.68	0.68	0.61	0.51										
Commitment	0.79	0.90	0.75	0.81	0.50	0.75									
Customer Satisfaction	0.47	0.65	0.65	0.67	0.41	0.38	0.57								
Emotional	0.70	0.76	0.88	0.67	0.63	0.85	0.79	0.57							
Involvement	0.37	0.57	0.55	0.52	0.47	0.32	0.44	0.80	0.51						
Loyalty	0.65	0.85	0.72	0.88	0.42	0.63	0.85	0.65	0.70	0.47					
Participation	0.71	0.68	0.52	0.48	0.51	0.69	0.64	0.30	0.62	0.34	0.49				
Perceived Quality	0.63	0.73	0.75	0.54	0.65	0.67	0.68	0.51	0.79	0.46	0.63	0.52			
Purchase Intention	0.67	0.93	0.67	0.85	0.46	0.63	0.79	0.66	0.70	0.55	0.88	0.48	0.65		
Trust	0.63	0.81	0.75	0.61	0.71	0.73	0.75	0.57	0.83	0.47	0.69	0.51	0.83	0.72	
Uniqueness of brand associations	0.70	0.72	0.72	0.57	0.63	0.66	0.65	0.45	0.72	0.46	0.59	0.65	0.71	0.61	0.75

Appendix X: Outer loadings brand equity and relationship quality study 4 stage 2

	Brand equity
Brand awareness	0.80
Perceived Quality	0.88
Uniqueness of brand associations	0.87

	Relationship quality
Commitment	0.89
Customer Satisfaction	0.76
Trust	0.87

Appendix Y: Ethics clearance

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Sibanda

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H19/08/38**
PROJECT TITLE	Antecedents and consequences of online customer brand engagement in Business-to-business in an emerging market
INVESTIGATOR(S)	Mr T Sibanda
SCHOOL/DEPARTMENT	Wits Business School/
DATE CONSIDERED	16 August 2019
DECISION OF THE COMMITTEE	Approved Risk Level: Minimal Two Year Extension Only
EXPIRY DATE	26 February 2025

DATE 27 February 2020 **CHAIRPERSON** _____
(Professor J Watermeyer)

cc: Supervisor : Dr Y Saini

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **A SIGNED COPY** returned to the Secretary electronically. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure be contemplated from the research procedure as approved I/we undertake to submit an amendment of the protocol to the Committee. **I/we agree to completion of a regular progress report. For Minimal and Low Risk studies, this is due annually on 31 December. For Medium and High Risk studies, this is due twice annually on 30 June and 31 December.**

16/05/2023
Signature

16 / 05 / 2023
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES