

**Customer Engagement Behaviour: A Case Study of Antecedents,  
Outcomes and the Moderating Role of Susceptibility to  
Informational Influences in Saudi Arabia's on Twittersphere**

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## **Abstract**

Customer engagement behaviour (CEB), which is a customer's behavioural manifestation towards a brand beyond a purchase resulting from motivational drivers (van Doorn et al., 2010), has evolved with the advent of social media. CEB with brands is facilitated through social media in real time using a variety of methods, such as word of mouth activities, commenting and sharing in an online context. As many customers now depend on their social media for information about brands, CEB on social media platform has important consequences for brands, including the potential to enhance customer-brand relationships (Gómez et al., 2019; Hollebeek, 2011a). Nonetheless, there is limited knowledge regarding the concept of CEB within the context of social media platforms and brands lack enough knowledge and understanding of CEB to properly measure it and manage its drivers towards beneficial brand outcomes (e.g., Touni et al., 2020; Hamzah et al., 2021).

This thesis aims to investigate the concept of CEB with brands in the social media platforms, with a focus on the Twitter platform, and to identify its antecedents and outcomes. This thesis proposed and tested a model that (a) conceptualises and measures CEB with the brand on Twitter; (b) tests the effects of tie strength, homophily and trust in driving CEB with the brand on Twitter; (c) tests for the moderating role of susceptibility to informational influences on the link between CEB and its antecedents; and (d) tests the impact of CEB on customer-brand relationships including brand trust, brand commitment and brand loyalty.

Saudi Arabia and the Twitter platform were chosen as the contexts of the current study. Saudi Arabia is viewed as a lucrative customer market for a wide range of local and global brands (Abalkhail, 2018) and Twitter is one of the country's most popular

social media platforms (Statista, 2021). Furthermore, Saudi Arabia has surpassed other nations in social media usage, with an exponential annual growth rate of 8% (Kemp, 2021b).

Quantitative research employing an online survey was conducted to collect data to examine the proposed model. Using the snowball sampling technique to recruit Saudi Arabians with Twitter accounts to participate in the research, a sample size of 400 was obtained. Exploratory and confirmatory factor analysis were used to confirm the factorial stability and multidimensionality of the proposed factors, followed by Structural Equation Modeling to confirm the structural model and test the hypothesised relationships among the key variables in the model.

The thesis theoretically and practically contributes to the literature of CEB regarding the social media context and enhances our understanding of the concept. Theoretically, the study provides conceptualisation and measurement of CEB on Twitter and identifies its key antecedents and relational outcomes. First, the findings validate the conceptualisation and operationalisation of CEB on Twitter as three dimensions—learning, sharing and endorsing. Second, they provide evidence regarding the role of trust in driving CEB with a brand on Twitter. Third, the findings provide support for the impact of CEB on enhancing positive brand-related behavioural outcomes on Twitter and offer evidence regarding the role that susceptibility to informational influence may have in strengthening the relationship between engagement behaviours and their antecedents. Practically, the proposed model enhances marketers' understanding of CEB on Twitter and thus encourages the development of stronger consumer engagement strategies on Twitter.

## Declaration

‘I, Mohammad Saad Alsahli, declare that the PhD thesis entitled ‘Customer Engagement Behaviour: A Case Study of Antecedents, Outcomes and the Moderating Role of Susceptibility to Informational Influences in Saudi Arabia’s on Twittersphere’ is no more than 80,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work’.

‘I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University’s Higher Degree by Research Policy and Procedures’

All research procedures reported in the thesis were approved by the Victoria University Human Research Ethics Committee (Application ID: HRE19-133).

Signature:

A solid black rectangular box used to redact the author's signature.

Date: 19/8/2021

## Dedication

I would like to dedicate this thesis to my parents for all their love, sacrifice, support and encouragement throughout my life's journey. They have taught me to work hard for the things that I aspire to achieve.

I also dedicate it to my son, Mshari, who joined us while I was writing this thesis and has brought immense joy, happiness and blessings to our lives. I hope that this work inspires him to reach his dreams one day.

أود أن أهدي هذه الرسالة لوالدي لكل ما قدموه من حب وتضحية ودعم وتشجيع طوال حياتي. لقد علموني أن أعمل

بجد من أجل الأشياء التي أطمح إلى تحقيقها.

أهديها أيضاً لابني مشاري الذي ولد أثناء كتابتي لهذه الرسالة ، وقد جلب لنا قدومه الكثير من البهجة والسعادة

والبركة. أرجو أن يلهمه هذا العمل لتحقيق أحلامه ذات يوم.

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‘Which is more important,’ asked Big Panda, ‘the journey or the destination?’

‘The company’, said Tiny Dragon (Norbury, 2020).

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## **List of Abbreviations**

AGFI: Adjusted Goodness of Fit Index

AVE: Average Variance Extracted

CEB: Customer Engagement Behaviour

CEBs: Customer Engagement Behaviours

CEBSC: Customer Engagement with Brand-Related Social Media Content

CFA: Confirmatory Factor Analyses

CFI: Comparative Fit Index

CMIN: Chi-Squared

CR: Composite Reliability

DF: Degree of Freedom

e-WOM: e-Word of Mouth

GFI: Goodness of Fit Index

KMO: Kaiser–Meyer–Olkin

MSI: Marketing Science Institute

NFI: Normed-Fit Index

NNFI: Non-Normed-Fit Index

PAF: Principal Axis Factoring

RFA: Exploratory Factor Analysis

RMSEA: Root Mean Square of Error Approximation

S-D: Service-Dominant

SEM: Structural Equation Modelling

SFL: Standardised Factor Loadings

SMC: Squared Multiple Correlation (SMC)

SMEB: Social Media Engagement Behaviour

SRMR: Standardised Root Mean Square Residual

UGT: Uses and Gratification Theory

WOM: Word of Mouth

## **Chapter 1 Introduction**

### **1.1 Introduction**

Today, social media platforms provide opportunities for brands and customers to interact on a deeper and more personal level than ever before. Our marketing world is responding to and making a shift in the way we communicate, from talking *at* customers to engaging *with* customers to develop strong and meaningful life-long relationships. For example, in 2017 Carter Wilkerson, a teenager with a love for Wendy's chicken nuggets, asked the fast-food chain via Twitter how many retweets he would need to get a year's supply chicken nuggets for free. The company's response was '18 million'. The tweet has been retweeted 3.58 million times, making it one of the most retweets of all time. Although the goal of 18 million retweets was not achieved, Wendy's offered him a year's supply of free nuggets for his efforts. In addition, by checking up on Carter to wish him a happy anniversary and to keep the challenge alive a year later, Wendy's maintained engagement with its followers. At the end of 2017, Wendy's Twitter following increased from 1.2 million to more than 2.3 million (Ravi, 2018), and this was not the only aspect of growth seen; Wendy's also experienced a 49.7% growth in profit, from \$129.6 million to \$194 million for the year (Eriksen, 2018).

Engaging with customers is not an easy task. Managers and academics alike recognise the challenges that are associated with both developing and executing customer engagement. This has opened avenues for academics to develop frameworks to guide effective customer engagement strategies. To date, the research about customer engagement has provided definitions (e.g., van Doorn et al., 2010), conceptualization and scale development (e.g., Hollebeek et. al., 2014), initial understanding of the antecedents and outcomes (e.g., Dessart, 2017). Despite a growing body of research about customer engagement in social media platforms, the topic remains equivocal regarding its

definition and conceptualisation as well as the drivers of successful engagement and its impact on brand key performance indicators such as growth and loyalty (Hollebeek et al., 2021; Srivastava & Sivaramakrishnan, 2021). Thus, this thesis is an attempt to address these gaps. Accordingly, this chapter provides background to the research, its aim and objectives and potential contributions to the knowledge. The chapter concludes with an overview of the subsequent chapters.

## **1.2 Research Background**

Internet-based communication, which can occur via social media platforms, has pervaded the business world and revolutionised the way in which business is conducted (Bourlakis et al., 2008; Minton et al., 2012). Accordingly, the marketing field is responding to this digital transformation, which is facilitated by social media platforms, such as Facebook, Twitter, Instagram, Snapchat and YouTube. Social media platforms have increasingly provided major marketing opportunities for both marketers and their clients by offering direct connections between different actors (e.g., customer to customer, customer to business) that both enable the sharing of information and knowledge and create and enhance relationships (Gómez et al., 2019). Notably, the Internet and its myriad communication platforms have increased engagement with branded content. Consequently, the emerging phenomenon of customer engagement has grown with the evolution of social media platforms (Hollebeek et al., 2014)

Customer engagement has become an important concept in marketing, and researchers and businesses have become aware of its important role regarding brand and business performance (e.g., Greve, 2014; Rust et al., 2004; Srivastava & Sivaramakrishnan, 2021). Scholars in the area have called for research on the topic (e.g., Brodie & Hollebeek, 2011). Notably, the subject of customer engagement was identified

by the Marketing Science Institute for the years 2014–2020 (Marketing Science Institute, 2014, 2016, 2018; 2020) as priority area requiring research. In 2010 and 2018, a special issue of the *Journal of Service Research* on engagement was published, including papers by leading authors on the topic, such as Alexander, Jaakkola, and Hollebeek (2018), Kumar et al. (2010), van Doorn et al. (2010) and Verhoef et al., (2010). Scholars tackled this complex phenomenon using different terminologies, such as customer engagement (e.g., Brodie et al., 2011) customer engagement behaviour (CEB) (e.g., van Doorn et al., 2010) and customer brand engagement (e.g., Hollebeek, 2011a). Recently, some scholars have argued the need to focus on more specific terms to explain different aspects of customer engagement because using different terminology confuses researchers and limits further conceptual developments (e.g., Calder et al., 2016; Maslowska et al., 2016; Srivastava & Sivaramakrishnan, 2021). Hence, a focus on the behavioural aspect of customer engagement has emerged in the marketing literature.

The terms ‘customer engagement’ and ‘customer engagement behaviour’ (CEB) have been used by some scholars interchangeably to represent their perspective of this concept (e.g., Jaakkola & Alexander, 2014). However, it is important to firstly clarify how these terms are used in this thesis, which differentiates between them. The term ‘customer engagement’ represents the general understanding of the concept which is a business communication connection between a customer and a firm (or brand), while CEB typically represents a customer’s behavioural manifestations toward a brand or firm beyond purchase that result from motivational drivers (van Doorn et al., 2010). As such, as a construct, CEB are behavioural manifestations of customers that revolve around a firm and/or brand, go beyond the purchasing transaction.

CEB is highly relevant to digital marketing communications (Maslowska et al., 2016; Yadav & Pavlou, 2014). Research on CEB is an emerging area, and it has attracted

both scholars and marketers to advance our knowledge and understanding of it to properly measure and manage its drivers to create beneficial customer–brand relationship outcomes (e.g., brand loyalty). However, despite the growing interest in conceptualising CEB construct as well as establishing nomological networks regarding its antecedents and outcomes (e.g., Kumar et al., 2010; van Doorn et al., 2010), further empirical research on the construct of CEB and its antecedents and outcomes is needed. Given the complexity of CEB, several scholars have called for further research in this area (Chen et al., 2017; Hollebeek, et al., 2021; Ng, et al., 2020; Romero, 2017). In addition, as technology continues to evolve, Hollebeek, et al., (2021) and Touni, et al., (2020) suggest that expanding studies on CEB to online settings will provide scholars and marketers with a better understanding of the concept and lead to more effective customer–brand relationship strategies.

Accordingly, this thesis will build upon on and contribute to the existing literature on CEB within the context of social media, specifically the Twitter platform (e.g., Dolan et al., 2016; Gummerus et al., 2012; Jahn & Kunz, 2012; Javornik & Mandelli, 2012; Maslowska et al., 2016; van Doorn et al., 2010; Verhoef et al., 2010; Wallace et al., 2014; Wirtz et al., 2013). CEB (van Doorn et al., 2010; Verhoef et al., 2010) within this context can include a variety of customers’ behavioural manifestations, such as WOM activities, helping others, blogging, writing reviews, liking, commenting, co-creation and content sharing (Brodie et al., 2013; Dessart et al., 2015; van Doorn et al., 2010). Notably, these behaviours can be performed to: engage with brands and other customers, strengthen the relationship with the brand and create value for both customers and brands (Romero, 2018; van Doorn et al., 2010). These behaviours are of importance to marketers because they affect brand loyalty (e.g., Gong, 2018), brand reputation (van Doorn et al., 2010), brand equity (e.g., Dwivedi et al., 2016), product development (e.g., Van Doorn et al.,

2010) and also other customers within a social media platform (e.g., Dolan et al., 2016). Consequently, positive manifestations of CEB on social media platforms are becoming a key objective for marketers (Dessart et al., 2015; Schivinski et al., 2016).

This thesis focuses on CEBs that are taking place on social media platform of Twitter. Notably, one of the most interesting aspects of the rise of social media platform usage has been the emergence of new ways for customers to engage with brands and other customers on these platforms (Lamberton & Stephen, 2016). Social media platforms enable new forms of engagement behaviour (Lamberton & Stephen, 2016), and they reshape customer-brand relationships (e.g., Gómez et al., 2019; Hudson et al., 2016). Twitter, as the context of this study, is an ideal platform for studying interactive communications (Sundstrom & Levenshus, 2017) because it facilitates debate, conversations and sharing (Kietzmann et al., 2011), which make it an appropriate marketing tool for engaging customers with brands (de Oliveira Santini, et al, 2020; Gong et al., 2017; Hay, 2010; Sundstrom & Levenshus, 2017; Shi et al., 2014). As an example, when in 2018 hip hop artist Kanye West used Twitter to share his love for McDonalds by tweeting ‘McDonald’s is my favourite restaurant’, UK Burger King jumped at the opportunity and replied within three minutes via a three-word response: ‘explains a lot’. The tweet immediately caught the attention of people all around the world. It generated nearly 1.5 million interactions within just a few days. To date, the tweet has become the most liked brand tweet in history. It has been shared more than 270,000 times and ‘liked’ by a record-breaking 1 million Twitter users. Clearly, one tweet can spawn massive customer engagement behaviours (e.g., like or retweet), providing support that social media platforms, such as Twitter, have found their way into our lives, and may influence our behaviour.

Understanding both the antecedents and outcomes of CEB is also addressed in this thesis. While a CEB does not operate in isolation, it nevertheless plays a central role within a nomological network (Brodie et al., 2011). Further, by definition, a CEB results from motivational drivers and should have a positive overall impact on a firm's brand equity (van Doorn et al., 2010). It is therefore critical for brands to understand both the antecedents and outcomes of CEB to enable them to focus on the complete process of engaging customers to improve their brand strategies (Pansari & Kumar, 2017). As such, modelling CEB within its potential antecedents and outcomes will provide insights into the nature of CEB. This thesis argues that social relationships factors such as tie strength, homophily and trust on Twitter may drive CEB and that CEB can enhance customer-brand relationships including brand trust, brand commitment and brand loyalty

Building relationships is the primary objective of social media platforms, such as Facebook, Twitter and Instagram. Social media platforms allow people to communicate and make friends with each other as well as demonstrate their main interests by engaging with brands and sharing information. Previous studies suggested that social interactions are one of the motivations for individuals to participate in the online communications (e.g., Ridings & Gefen, 2004). Such interactions on social media platforms may affect their engagement behaviour with brands. Hence, this thesis attempts to investigate the influence of social relationships factors that lead to CEB. Indeed, few studies have tested the relationship between social relationship constructs (e.g., tie strength, homophily and trust) and CEB. Thus, an investigation of social relationship factors as antecedents for CEB is timely and needed (Ajiboye et al., 2019). From the literature on customer behaviour and social networks, tie strength, homophily, trust and informational influence have been determined the focal dimensions that characterise the nature of social relationships (e.g., Brown & Reingen, 1987; Bearden, et al.,1989; Chu & Kim, 2011;

McPherson, et al., 2001; Nahapiet & Ghoshal, 1998). Homophily—the tendency for people to have ties with similar people—implies that a contact between similar people occurs at a higher rate than among dissimilar people (McPherson et. al., 2001). Tie strength—the potency of the bond between members of a network—provides a useful explanation for dyadic interactions among customers (Brown & Reingen, 1987). Trust—'a willingness to rely on an exchange partner in whom one has confidence' (Moorman et al., 1993, p. 82)—is a significant predictor of willingness to engage in cooperative activity (Nahapiet & Ghoshal, 1998). Finally, susceptibility to informational influence, which occurs when individuals conform to peers' views in an attempt to be correct, is an important individual difference variable for the study of customer behaviour (Bearden et al., 1989; Wang, et al., 2012).

In addition, this study focuses on the positive behavioural outcomes of CEB, with an emphasis on brand-related outcomes. In general, CEB should have a positive overall impact on a brand. Despite the importance of customer-branding relationship building in social media platforms, little is known about the impact of CEB on social media platforms on customers' relationships with brands and whether CEB are associated with desired brand-related outcomes across different social media platforms such as Twitter (Hamzah et al., 2021; Hudson et al., 2016; Touni, et al., 2020). Therefore, this thesis proposes three potential brand-related outcomes of CEB in Twitter: brand trust, brand commitment and brand loyalty.

### **1.3 Significance of the study**

The advent of social media platforms has stimulated CEB, allowing customers to engage with brands using a variety of behavioural manifestations (Hollebeek, et al., 2021; Hollebeek et al., 2014; van Doorn et al., 2010). Customers use social media platforms to engage with brands online via word-of-mouth activities, writing reviews and liking,

commenting on or sharing posts (Dolan et al., 2016; de Oliveira Santini et al., 2020; Schivinski et al., 2016), which has important consequences for brands (Hollebeek, 2011a; Srivastava & Sivaramakrishnan, 2021). It is therefore imperative for brands to understand the ways in which customers engage with their brand on social media platforms (Gómez et al., 2019). In particular, it becomes meaningful for brands to investigate CEB and its antecedents on social media platforms to properly manage them and create beneficial customer–brand relationship outcomes (Gómez et al., 2019; Touni et al., 2020).

Although many previous studies focused on the examination of CEB with social media platforms (e.g., Dolan et al., 2016; Schivinski et al., 2016), further investigation of CEB and its antecedents and consequences on various social media platforms, such as Twitter, is needed (Bilro & Loureiro, 2020; Chen et al., 2021; Dolan et al., 2019; Hamzah et al., 2021; Meire et al., 2019; Touni et al., 2020). Previous studies have not fully addressed the social relationship factors that may facilitate CEB on social media platforms. While Algesheimer et al. (2005) examined social influence, Tsai and Men (2013) explored social identity and Chen et al. (2021) studied social interaction, other social relationship factors, such as tie strength and homophily, still need to be confirmed across different social media platforms. Furthermore, several scholars have suggested that CEB on social media has positive effects on customer–brand relationships (Dessart, 2017; Kumar, 2020), such as brand love and customer–brand identification (Hamzah et al., 2021), brand relationship quality (Touni et al., 2020) and brand loyalty (Gong, 2018). Nevertheless, there is still a need to investigate and confirm the impact of CEB on customer–brand relationships, especially across different social media platforms, particularly, Twitter (Dessart, 2017; Srivastava & Sivaramakrishnan, 2021; Touni et al., 2020).

This thesis focuses on CEB on the social media platform of Twitter. Specifically, it explains the role of social relationship factors; tie strength, homophily and trust in facilitating CEB and the impact of this behavioural engagement on customer–brand relationships including brand trust, brand commitment and brand loyalty. It offers a deeper understanding of the nature and dynamics of CEB on the Twitter platform. As such, it addresses one of the key topics of interest highlighted in the Marketing Science Institute’s 2018–2020 Research Priorities (MSI, 2020) and is consistent with recent calls for the investigation of CEB and its antecedents and outcomes within different social media platforms (Hamzah et al., 2021; Srivastava & Sivaramakrishnan, 2021; Touni et al., 2020). Therefore, the aim of this thesis is to enhance our understanding of the CEB process within the social media platform of Twitter. As such, it addresses five key questions to guide this study:

1. Do social relationship factors, particularly trust, tie strength and homophily, within Twitter lead customers to engage with brands?
2. Which dimensions of customer engagement behaviour with brands exist on Twitter?
3. How does customer engagement behaviour manifest on Twitter?
4. Does susceptibility to informational influence moderate the relationship between CEB and its antecedents?
5. Does CEB on Twitter enhance positive brand-related behavioural outcomes, particularly brand trust, brand commitment and brand loyalty?

## **1.4 Research Aims and Objectives**

The overall aim of this thesis is to advance the understanding of CEB with the brand and its antecedents and outcomes within the social media platform of Twitter. These aims will be achieved through the following research objectives:

- (a) conceptualising and measuring CEB with the brand on Twitter;
- (b) testing the effects of social relationships factors including tie strength, homophily and trust in driving CEB with the brand on Twitter;
- (c) testing for the moderating role of susceptibility to informational influences on the link between social relationships factors and CEB; and
- (d) testing the impact of CEB on customer–brand relationships including brand trust, brand commitment and brand loyalty.

## **1.5 Contributions**

This thesis responds to recent calls for further investigation into the concept of CEB with brands and its antecedents and outcomes across different social media platforms (Ajiboye et al., 2019; de Oliveira Santini, et al 2020; MIS, 2020; Pansari & Kumar, 2017; Romero, 2017, 2018; Touni, et al., 2020). Based on the research aims and objectives developed above, this research contributes to the knowledge of CEB literature in four major ways:

First, this study will contribute to the conceptualisation of CEB within the Twitter platform. Specifically, this thesis investigates and identifies the components of the CEB construct by conceptualising and measuring CEB with the brand on Twitter. The literature currently contains a limited understanding of what comprises the CEB construct, and what the best way to define the CEB construct. Although some researchers have proposed a conceptualisation of the CEB construct (e.g., Bijmolt et al., 2010; Kumar et al., 2010;

Maslowska et al., 2016; van Doorn et al., 2010; Verhoef et al., 2010), empirical studies are needed to identify the components (Maslowska et al., 2016; van Doorn et al., 2010). This thesis attempts to fill this gap in the literature by conceptualising the CEB construct as three dimensions—learning, sharing and endorsing—through empirically testing and measuring them within Twitter. Therefore, this thesis will clarify the relevance and applicability of the three-dimensionality of the CEB construct (Dessart et al., 2016) within Twitter and enhance the understanding of these dimensions by detailing their conceptual and operational structures.

Second, this study contributes to both the identification and validation of antecedents and outcomes of CEB in Twitter platform. Although the literature highlights a growing interest in CEB, the questions of what drives them on social media platforms and what impact they might have remain tenuous (Bilro & Loureiro 2020; Hamzah et al., 2021). Therefore, this thesis attempts to fill this gap in the literature by proposing and testing a model that explains the role of social relationships factors including tie strength, homophily and trust in driving CEB on Twitter, including its impact on consumer–brand relationships including brand trust, brand commitment and brand loyalty. The findings will advance our knowledge of the role of social relationships on CEB on Twitter and its influence on brand relationship development. Research into the antecedents and outcomes of CEB in the social media context is a priority on the engagement research agenda. This was well evidenced in the recent special issue of the *Journal of Service Research* (2018), the *International Journal of Research in Marketing* (2021) and in the MSI’s 2018–2020 research priorities, which indicate the need for a greater understanding of an increasingly complex technological context affects customer journey with brands and what drives deeper and lasting CEB with brands. In addition, various scholars have argued for the need for further research to investigate and identify antecedents and outcomes of CEB

across different social media platforms (e.g., Barger et al., 2016; Braun et al., 2016; Dessart, 2017; Hamzah et al., 2021; Maslowska et al., 2016; Pansari & Kumar, 2017; Romero, 2018; Touni, et al., 2020).

In particular, few studies have investigated social relationship constructs in relation to the CEB construct (e.g., van Doorn et al., 2010). Hence, this thesis introduces certain social relationship factors on Twitter as key antecedents of CEB. Knowledge on the impact of CEB on social media on brand-related outcomes is also lacking (e.g., Dessart, 2017; Gummerus et al., 2012; Hamzah et al., 2021; Touni, et al., 2020). Confirming the potential impact of CEB on customer–brand relationships in the social media platforms is needed (Hamzah et al., 2021; Touni, et al., 2020). Therefore, this thesis enhances the current understanding of CEBs’ role in customer –brand relationship development with a focus on Twitter. In addition, while some studies have attempted to understand the role of CEB in a network of nomological relationships with other constructs, most of these lack empirical investigation and verification (e.g., Maslowska et al., 2016; van Doorn et al., 2010). As such, modelling CEB within its potential antecedents and outcomes will provide insights into the nature of CEB.

Third, this thesis attempts to reveal the moderating role of susceptibility to informational influences in the customer engagement phenomenon in the marketing literature. Although susceptibility to informational influence is an important customer trait in the study of customer behaviour, which varies across individuals (Bearden et al., 1989; McGuire, 1968; Wang et al., 2012) and plays an important role in customer decision making (e.g., Lord et al., 2001), most research has ignored its moderating mechanisms in strengthening the relationship between CEB and their antecedents. Investigation of the moderating role of susceptibility to informational influences on engagement behaviour will provide insights into the literature of engagement. For example, it could explain what

may cause the antecedents of CEB to be more effective on the social media platform. Therefore, investigation into the impact of susceptibility to informational influences on CEB is warranted to create a better understanding of the prevailing phenomenon.

Finally, this thesis builds on the existing knowledge of CEB via the development and empirical examination of a CEB model within the Twitter context. de Oliveira Santini, et al (2020) claimed that Twitter appears to improve customer engagement twice as likely as other social media platforms (e.g., Facebook) and suggested a need for a better understanding of Twitter as a beneficial customer engagement tool. In fact, Facebook has notably been the focus of many engagement behaviour studies (e.g., Gummerus et al., 2012; Hamzah et al., 2021; Touni, et al., 2020; Wallace et al., 2014), with little attention given to other social media platforms, such as Twitter (Triantafillidou & Siomkos, 2018; Williams et al., 2013). It is clear that, regarding CEB, the important feature of social media platforms is that they allow customer–brand interactions (Dessart, 2017). Further, engagement is a highly context specific (Calder et al., 2016) and each social media platform has its unique characteristics in terms of functionalities, interface, features, content and the conduct of members on the platform (Voorveld, et al., 2018), meaning that customers engage with these platforms differently. Therefore, the unique characteristics of each platform and the way in which each platform is used by customers presents a challenge as well as opportunities for brands (Abed et al., 2015). Thus, investigating CEB across different types of social media platform (e.g., Twitter) would yield fruitful insights in this regard (Touni, et al., 2020).

This thesis also contributes to the study of CEB in Saudi Arabia. The Internet and social media platforms have become global phenomena that cross borders and cultures. Thus, exploring CEB in different cultures and countries could provide new theoretical and practical insights (Gupta et al., 2018; Schivinski et al., 2016). In general, the CEB

concept has received limited research attention in Saudi Arabia. To the best of the researcher's knowledge, only one study has attempted to investigate brand customer engagement with local and global brands on Facebook in Saudi Arabia (Abuljadail, 2019), and none have investigated Twitter in that capacity.

## **1.6 Thesis structure**

This thesis is organised into seven chapters, including the Introduction. The following provides an overview of each chapter.

**Chapter 1**, as an introductory chapter, provides the research's background information, significance of the study, the aim and objectives and contributions. The chapter concludes with an overview of subsequent chapters. **Chapter 2** introduces the context of the study. It offers the background information about Both 'Saudi Arabia' and the 'Twitter platform' as the contexts of the current study. **Chapter 3** is a review of the literature that is related to the study. This includes a brief history of how CEB developed in the marketing literature. The chapter also provides background information regarding the concept of CEB and an overview of different definitions and conceptualisations of the CEB construct to date. It also includes an overview of the theoretical lenses of customer engagement. Further, it provides a review of CEBs and their antecedents and outcomes. Thereafter, it presents a selection of the CEB construct and the potential antecedents and outcomes. The chapter concludes with the literature review's conclusions. **Chapter 4** presents the conceptual framework for this study. An adaptation of the expanded domain of relationship marketing theory (Vivek et al., 2012), social exchange theory (Blau, 1964) and uses and gratification theory (UGT) (Katz & Foulkes, 1962) is used to develop the theoretical underpinning of the proposed conceptual framework. The hypotheses of the study, which are based on the underlying theory and past evidence from previous studies, are then presented. **Chapter 5** is dedicated to methodology. It provides an explanation of

the choices that were made for the research paradigm, the design and the methods employed. It includes the study's design, data collection information, questionnaire development, sampling procedure, analysis techniques and all ethical considerations. **Chapter 6** offers a detailed discussion of the research's results and findings. **Chapter 7** presents the summary of findings and the research implications along with the research contributions and finally, the limitation of the research are knowledge and future research directions are proposed.

## **Chapter 2 Context of the Study**

### **2.1 Introduction**

In the previous chapter the background information about the research was provided. This chapter is devoted to describe the context of the current research. Both ‘Saudi Arabia’ and the ‘Twitter platform’ were chosen as the contexts of the current research. The following section provides descriptions as well as justifications for the use of these two contexts. The first section provides an overview of social media platforms, including their definition, categories and functions as well as an evaluation of the role of social networking platforms in customer-brand interaction. The second section focuses on the Twitter platform, including a brief history, description and background information. Lastly, an overview of and background information about Saudi Arabia are provided, including information about the country, the Saudi market and Saudi customers.

### **2.2 Social Media Platforms**

The technological developments, namely social media platforms, have changed and enhanced the ways in which companies and customers communicate regarding products and services (Hollebeek, et al., 2021; Hollebeek, et al., 2014). Social media platforms have been defined as ‘a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content’ (Kaplan & Haenlein, 2010, p. 61). Modern customers use social media platforms to create and share information and knowledge about companies and their products and services. They also build online communities and networks that spread information outside marketers’ control. Notably, social media platforms have become online users’ most preferred communication tool; they integrate social media platforms and applications into all aspect of their lives (Okazaki, 2009),

often using them to communicate and share information about products and brands (Hollebeek, et al., 2021; Wolny & Mueller, 2013). Due to the significant growth in their use, social media platforms have the potential to become the most powerful tools available for changing customers' behaviours (Gómez et al., 2019; Rosario et al., 2016).

The literature has categorised social media platforms in different ways. Fraser and Dutta (2008) were among the first researchers to provide five broad categories for social media platforms as follows: egocentric sites, which allow users to build their own profiles; community sites, which imitate real-world communities; opportunistic sites, which facilitate business; passion-centric sites, which allow users to connect based on interest; and media-sharing sites, which allow users to share different types of media content (image, audio, video) (Fraser & Dutta, 2008; Parent et al., 2011). Table 2-1 presents these categories in more detail.

**Table 2-1**

*Categories of Social Media*

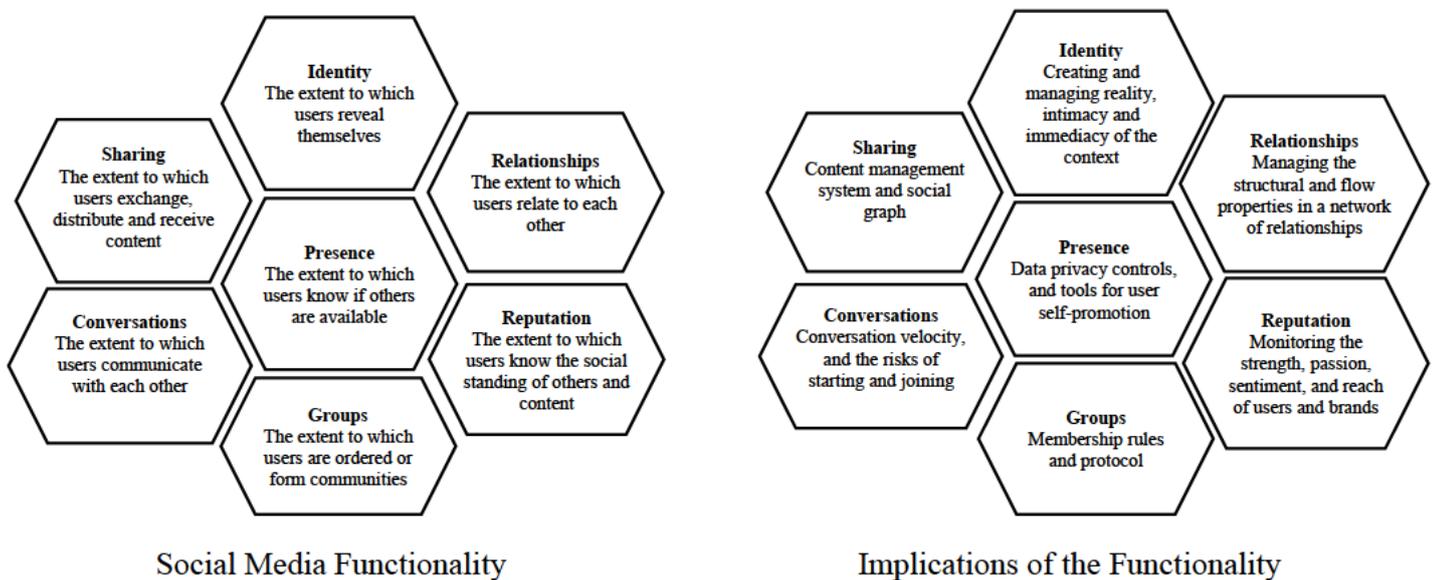
<b>Categories</b>	<b>Appeal</b>	<b>Example of site(s)</b>
Egocentric Sites	Allow users to construct profiles of themselves on virtual platforms facilitating identity construction and connections.	Facebook.com MySpace.com Twitter.com Bebo.com
Community Sites	Imitate real-world communities, allowing groups to form around like beliefs.	BigWaveDave.com BlackPlanet.com Dogster.com
Opportunistic Sites	Allow for different social organization of users and facilitate business connections. Often defined vertically.	LinkedIn.com Academia.edu Alibaba.com
Passion-centric Sites	Allow users to connect based on interest and hobbies. Often defined horizontally.	TheSamba.com Chatterbirds.com GermanCarforum.com
Media Sharing Sites	Allow users to share rich media with each other. Defined by content, not users.	Flickr.com, YouTube.com slideshare.com

Source: Adapted from Fraser and Dutta (2008) (as cited in Parent et al., 2011, p.220)

Kietzmann et al. (2011) developed the honeycomb framework to categorise social media platforms through seven functional building blocks (see Figure 2-1). The authors argued that these blocks help marketers understand how social media platforms vary in terms of their function and impact as well as help them make sense of social media platforms and understand their audience, including their engagement needs and goals. In this thesis, the honeycomb framework of Kietzmann et al. (2011) can be useful as the basis for understanding social media functionalities (Kaplan & Haenlein, 2010; Senadheera et al., 2011) which in turn will help brands to use social media platforms to enhance CEB

**Figure 2-1**

*The Honeycomb of Social Media*



Source: Kietzmann et al. (2011)

The seven constructs of the honeycomb framework, which are identity, presence, relationships, conversations, groups, reputations and sharing, can be described as follows:

1. The identity functional block describes the extent to which users choose to reveal their identities in a social media platform. It includes disclosing personal information, such as name, age, gender, profession, location and/or other information that presents users in a certain way. The way in which users share their identities via social media platforms can help the brand find networks that align with its image and goals. It can also help the brand build relationships with potential and existing customers as well as with influencers who have already earned the trust and respect of millions of followers because a mention from them carries significant weight and can increase CEB. LinkedIn is an example of a social media platform with high identity because it contains fairly detailed user profiles. Also, other platforms such as Twitter and Facebook enable customers to express their identities in their account.
2. The conversations block is defined as the extent to which users communicate with other users in a social media platform. Many social media platforms are designed to facilitate conversation among individuals or groups. The firm can build awareness for its brand by conversations on social media platforms through engaging and interacting with their potential and existing customers. It can be as simple as replying to tweets and commenting on posts in which the brand fosters CEB. Examples of high conversational platforms are Facebook, Twitter and YouTube, where topics (e.g., a new product launch) are presented (e.g., in a hashtag) that spark discussion and comments about the brand and its new product.
3. The sharing block represents the extent to which users exchange, distribute and receive content, such as such as video, text, pictures and links. The brand can post either a text, an image or a video and encourage CEB through sharing. Therefore, customers can share the content with their followers. Most social media platforms,

such as YouTube, Instagram, Facebook and Twitter, are high in the sharing functionality.

4. Presence describes the extent to which customers know if other customers are accessible at a specific time. Foursquare provides a high presence function that notifies you of others' actions and movements. This function could be used by brands by encouraging a customer to share their location (i.e., restaurant or entertainment event) with their friends. This would increase the awareness of customers about the brand and give them access to more options.
5. The relationships block represents the extent to which users can be related to other users. It means that two or more users have some form of association that leads them to converse, share objects of sociality, meet up or simply list each other as a friend or fan. The brand can make friends with existing and potential customers and grow its number of followers, which will likely increase CEB. Social media platforms that are high in relationships include LinkedIn, which links people through similar employment and interests, and Facebook and Twitter, which links friends and family.
6. Reputation represents the extent to which users can identify the standing of others, including themselves, in a social media setting, and it can have different meanings on different social media platforms. A brand can (to some extent) measure its popularity and reputation through its number of followers and/or the number of 'likes' or 'retweets' that it receives on a tweet. For example, Twitter builds reputations by the number of followers and retweets, and Facebook does so by 'likes'. Accordingly, the followers of the brand may facilitate engagement behaviours such as sharing, posting and so on.

7. The groups functional block represents the extent to which users can form communities and subcommunities. The more ‘social’ a network becomes, the bigger the group of friends, followers and contacts. The group and hashtag functions of some social media platforms are useful to brands in many ways, such as connecting them with likeminded peers which may lead to increase different forms of CEBs. A platform that has high group functionality is Facebook, which has the ability to form specific group pages and chats and to link people as ‘friends of friends’. The Twitter platform enables customers or brands to create a hashtag that easily linked people to follow topics that they are interested in (e.g., new features in a product).

### **2.3 Twitter: A Social Media Platform**

Twitter is considered one of the most used social media platforms worldwide for customers interaction with companies, brands and other customers (Jansen et al., 2009; Macmillan, 2019; Needle, 2021). Twitter is ‘a micro-blogging information network site, where companies can easily engage with customers’ (López et al., 2017, p. 23). Table 2-2 presents a list of key Twitter-related terms and their definitions. Twitter has different characteristics than other social media platforms, and thus it is driven by different motivations (Smith et al., 2012). Twitter adopts an asymmetrical follower model, such that businesses and customers do not need to approve their followers (Smith et al., 2012). Thus, Twitter users may follow a certain account of interest (e.g., an individual, a business, brand communities or a brand) but the follow-up may not be reciprocally followed. Once a user becomes a follower, all tweets of the followed account appears in the user’s timeline. In addition, tweets are available for anyone to read, whether they have a Twitter account or not. Thus, the open and public delivery of communications allows marketers to spread their tweets beyond their followers. Hence, Twitter offers marketers

a viable opportunity to interact with customers who are interested in their offerings and services (de Oliveira Santini, et al 2020; Jansen et al., 2009; Read et al., 2019; Sook-Kwon et al., 2014). It also allows them to gather real-time market intelligence, insights and feedback (Smith et al., 2012).

**Table 2-2**

*Twitter Terms*

<b>Twitter Terms</b>	<b>Definition</b>
Tweet	A tweet is information that is shared on Twitter, which may contain photos, GIFs, videos, links and text. A tweet can include up to 4 photos, 1 GIF or 1 video, and the text is restricted to 280 characters.
Timeline	The timeline displays a stream of tweets from accounts that a user has chosen to follow on Twitter, and it is generally updated in real time.
Follower	A follower is someone who has requested that the tweets (posts) of another user be visible in his/her timeline.
Following	Users may subscribe to (follow) other users' tweets to curate their Twitter feeds and stay abreast of trends, topics and people of interest.
Retweet	A retweet is a tweet that is reposted by another Twitter user and shared with that person's followers.
Reply	A reply is a response to another person's tweet.
Mentions (@)	By typing the '@' symbol before the username(s) in the body of the tweet, a person can mention that user to inform him/her of the tweet.
Hashtag (#)	The hashtag symbol (#) before a relevant keyword or phrase in a tweet is used to categorise tweets and make them easy to find via a Twitter search. This function allows users to easily follow topics of interest and start group discussions about a particular topic, such as #favouriteshoesbrands.
Direct message	A direct message is a private tweet that is sent directly to another Twitter user.
Like	Likes, which are represented by a small heart, are used to show appreciation for a tweet. By liking a tweet, a user can save it for later use.

Adapted from Twitter, 2019

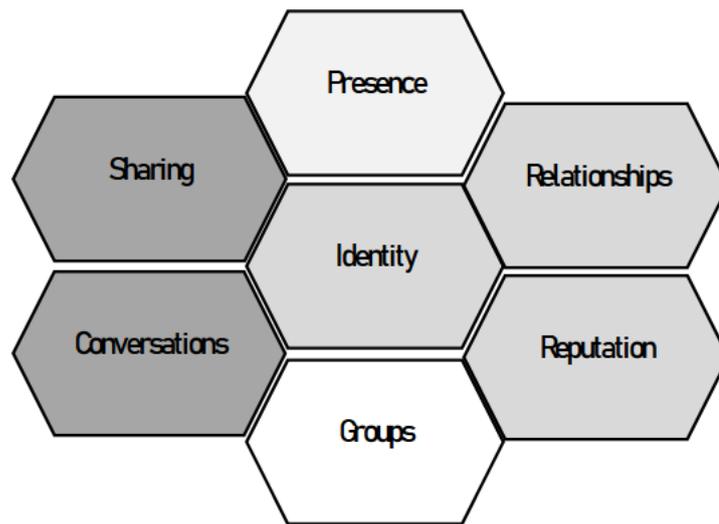
From a customer's perspective, Twitter is used to engage with brands and other customers (de Oliveira Santini, et al 2020; Okazaki et al., 2015; Smith et al., 2012). Twitter is also used to engage in discussion more often than other social media platforms such as Facebook (Smith et al., 2012), making it appropriate for brand development (López et al., 2017). Notably, Hay (2010) suggested Twitter as a marketing tool for engaging people with brands. A pioneering study about Twitter by Jansen et al. (2009) suggested that it, was then, a new form platform for customers to express their sentiments, complaints and opinions about brands. Previous studies have also analysed the influence of Twitter on customers behaviour. Hennig-Thurau et al., (2015) found that reviews on Twitter affect the early adoption of new products. Previous studies have demonstrated that Twitter users tend to use the platform to communicate with the brand (Smith et al., 2012). Finally, Vargo (2016) found that brand tweets that encourage input and participation from customers positively boost customer engagement (e.g., they are retweeted).

Using tools like the honeycomb framework of Kietzmann et al. (2011) can be useful for understanding Twitter functionalities. Figure 2-2 illustrates the functionality of the Twitter platform. The darker the colour of a block, the greater the functionality within the Twitter platform. Notably, Twitter provides features that fit into the seven basic blocks (For example, groups can be formed through hashtags on Twitter). McCarthy (2012), who is one of the developers of the honeycomb framework, suggested that conversations and sharing are the major functionalities of Twitter. In contrast to other social media platforms such as Facebook, which people use to build relationships, Twitter is more about discussion, conversation and sharing (Kietzmann et al., 2011). For example, a brand can tweet on Twitter about their new offerings and the followers of the brand can then retweet it to their followers and/or like this tweet. Customers also can tweet about their

experiences with the brand and their followers can engage by retweet, like or involve in a discussion about the brand. This supports the argument that Twitter has high level of utility for CEBs with brands.

**Figure 2-2**

*Contrasting the functionalities of Twitter Platform*



Adapted from Kietzmann et al. (2011)

## **2.4 Saudi Arabia**

Saudi Arabia lies at the furthestmost part of southwestern Asia, with a total area of approximately 2,000,000 square kilometres. The population of Saudi Arabia is 35.34 million, with a unique demographic in that two-thirds of the population is under 35 years old (The Saudi General Authority for Statistics, 2020a). Saudi Arabia, while considered a developing country, is wealthy and contains a plethora of amenities for its citizens. As the world's largest oil producer, Saudi Arabia became the 19th largest economy worldwide in 2020 with a gross domestic product (GDP) of approximately \$680.9 billion US dollars (The Saudi General Authority for Statistics, 2020b). Saudi Arabia today is the

22<sup>nd</sup> largest consumer market in the world, the 6<sup>th</sup> largest in Asia and the largest in the Middle East region. The Saudi market is therefore one of the most lucrative markets in the world, making it attractive to local, regional and global brands. Today, the Saudi market supports a wide range of local and global brands (Abalkhail, 2018; Alharbi, 2014; Assad, 2006).

Saudi Arabia has undergone a process of liberalisation of foreign trade and massive technological, societal and economic transformations since 2000. For example, Saudi Arabia joined the World Trade Organization (WTO) in 2005 which stimulated its trading environment, launched a national mobility scholarship programme to support its citizens to experience other cultures, and in 2016, launched Saudi's *Vision 2030* with the aim of creating (a vibrant society, a thriving economy and an ambitious nation). These strategies and initiatives have influenced Saudi's culture and social behaviours, including consumption and customers behaviour (e.g., Al-Saif, 2002; Assad, 2008; Thompson, 2021).

Currently, Saudi Arabia is a market of early technology adopters, with one of the highest social media penetrations globally. The country has an internet penetration rate of 95.7% versus the global average of 59.7% (Kemp, 2021a). Notably, 89.9% of Saudi internet users have actively engaged with or contributed to social media (Kemp, 2021b). Saudi Arabia continues to have the largest social media presence globally, with 79.3% of its population active social media users (Kemp, 2021a). Furthermore, since the outbreak of COVID-19 in 2021, Saudi Arabia has surpassed other nations in social media usage with an exponential annual growth rate of 8% (Kemp, 2021b). Indeed, Saudi customers use social media platforms, on average, for three hours and six minutes daily compared to the global average of two hours and 25 minutes daily (Kemp, 2021a). Therefore, social media platforms have become a source of information, communication, entertainment

and influence in Saudi Arabia (e.g., Aljabre, 2013) and a major driver of the transformation of Saudi customer lifestyles and behaviours (e.g., Alansari et al., 2018; Makki & Chang, 2015).

The Saudi savvy customers use the Internet and social media platforms to stay abreast of the latest trends, including fashion and new global brands. They tend to interact and follow brands on social media platforms. For example, the official Twitter account of the Saudi Communication Company (@STC\_KSA)—a leading provider of technology services in Saudi Arabia—had 4.1 million followers as of June 2021. The largest retailers for books and electronics in Saudi Arabia (@JarirBookstore) had 2 million followers as of June 2021. The official Twitter account of McDonalds in Saudi Arabia (@McDonaldsKSA) had 612,000 followers as of June 2021. Social media platforms have therefore become essential for brand-building in Saudi Arabia (Al-Rasheed & Mirza 2011; Al Saud & Khan, 2013).

The rapid digitization has made a significant impact on the Saudi customer's lifestyle. With a youth-dominated population, the typical Saudi customer has become extremely tech-savvy. Saudis have recently experienced changes in their way of discovering and engaging with local and global brands (e.g., Al-Rasheed & Mirza, 2011; Almana & Mirza, 2013). Saudi customers use social media platforms to discover brands or share them with their digital networks, calling for capitalising on the power of digital channels to grow and accelerate the creation of knowledge about brands (e.g., Alsharkh, 2012). For example, 60% of Saudi internet users use social media as their main source of information when researching brands versus the global average of 44.8 % (Kemp, 2021a). While it is evident that social media platforms have stimulated Saudi customer engagement behaviour with brands and other customers globally, a comprehensive understanding of the role social media platforms play in

customer engagement with brands in this culture is lacking. Given the limited knowledge regarding engagement behaviour on social media platforms in different cultures and countries (Christofi et al., 2018), it is imperative to understand CEB in different cultures (Gupta et al, 2018).

## **2.5 Brand Insights in Saudi Arabia**

In this thesis, it would be helpful to provide some insight about local and global brands in Saudi Arabia. In fact, the Saudi market has witnessed tremendous growth in many successful local and global brands (Abuljadail, & Ha 2019; Assad, 2006), which encompass many product categories, such as food and beverages, retail, automotive services, healthcare, education, furniture, hotels, cosmetics, laundry services, apparel, etc. Many global brand names (e.g., McDonalds, Coca Cola, Zara, Nike, Hilton, MAC and Ikea) are already well entrenched in the market, making them as popular in the Saudi market as in any other market worldwide (Alharbi, 2014). Many international brands are competing in the Saudi market, yet American brands are more favoured by Saudis (e.g., Abalkhail, 2018; Bhuian, 1997). For example, the American technology brand Apple seems to be more popular than the Korean brand Samsung. American clothing brands, such as Nike, American Eagle, Coach, Calvin Klein, Hollister etc., are all-time favourites of Saudi youths. For Saudi girls, MAC and Estee Lauder are trusted cosmetic brands. Among the many international fast-food restaurants that operate in the Saudi market, McDonalds is most often preferred by Saudi teenagers (e.g., Abalkhail, 2018).

Likewise, many Saudi brands have been conceived and established in the market, including Maestro Pizza, Dr. Café and Almarai, in the food sector, STC in the Telecom sector, Jarir Bookstore and Panda in the retail sector, Samba and SAIB in the banking sector, etc. Saudi Arabian brands are performing well as strong global brands, and they are seen as innovative and creative, providing a great experience, serving a purpose and

likable (BrandZ, 2021). For example, the Saudi online food delivery platform; HungerStation, which was launched 2012, has become one of the great innovators in the middle east region. Table 2-3 presents the top 19 most valuable Saudi Arabian brands (BrandZ, 2021).

**Table 2-3**

*The Top 19 Most Valuable Saudi Arabian Brands in 2020*

<b>Brand Name</b>	<b>Year Formed</b>	<b>Product Category</b>	<b>Brand Value (Million)</b>
Saudi Telecom Company (STC)	1998	Telecom	\$ 9,673
Al Rajhi Bank	1957	Banking	\$ 4,732
Almarai Company	1977	Food and Dairy	\$ 2,784
The National Commercial Bank	1953	Banking	\$ 2,017
Jarir Marketing Company	1979	Retail	\$ 1,861
Riyad Bank	1957	Banking	\$ 1,027
Saudi British Bank (SABB)	1978	Banking	\$ 968
Samba Financial Group	1980	Banking	\$ 901
Bupa Arabia for Cooperative Insurance Company	1997	Insurance	\$ 843
Panda (The Savola Group)	1978	Retail	\$ 769
Alinma bank	2006	Banking	\$ 726
Abdullah Al Othaim Markets Co)	1980	Retail	\$ 547
Arab National Bank	1979	Banking	\$ 532
The Company for Cooperative Insurance (Tawuniya)	1986	Insurance	\$ 500
Hunger Station	2012	Online food Delivery Platform	\$ 488
Albilad Bank	2004	Banking	\$ 466
Dar Al-Arkan Real Estate Development Company	1994	Real State	\$ 358
Extra (United Electronics CO)	2002	Retail	\$327
Saudia Dairy & Foodstuff Company	1976	Food and Dairy	\$ 290

## **2.6 Online customer Behaviour in Saudi Arabia**

It is imperative to shed light on Saudi customers' online behaviour, as the context of the current study, to establish some level of understanding of Saudi customers. Several scholars have investigated Saudi customers' online behaviour. For example, Al-Rasheed and Mirza (2011) investigated Saudi customers' Internet searching behaviours regarding travel information and shopping and found a high level of customer engagement with e-tourism and e-travel services. Additionally, previous studies concerning Saudi online customers have suggested that they are strongly influenced by e-word-of-mouth (eWOM), online reviews, comments and ratings, on which they rely heavily when making purchasing decisions (Almana & Mirza, 2013; Al-Ghamdi et al., 2011). Al-Haidari (2016) examined online role behaviour in female-only online communities and found that 80% of the participants preferred to be contributors through posting recommendations to help others in the community both understand and learn various aspects of the market offerings. Al-maghrabi and Dennis (2010) found that Saudis' perceived enjoyment, usefulness and subjective norms were determinants of technology adoption and online shopping continuance. Makki and Chang (2015) confirmed that the growing impact of social media on e-commerce has surpassed that of emails and SMS for Saudi users. Bahaddad et al. (2013) highlighted the importance of brand names in the online behaviour of Saudi customers, including that the names promoted confidence in making online purchases. Alsharkh (2012) investigated the effect of social media on accepting opposing opinions and found that young Saudis tended to accept the opinions of others online. Therefore, social media platforms such as Facebook, Twitter and Instagram have become a popular tool for online shopping among customers in Saudi Arabia (Pan et al., 2019)

## **2.7 Chapter Summary**

This chapter provides descriptions and justifications for the use of Saudi Arabia and the Twitter platform as the contexts of the current study. The chapter begins by highlighting the role of social media platforms in customer–brand interactions, including how customers use social media platforms to create and share information and knowledge about companies and their products and services. The chapter then discusses the Twitter platform as one of the most used social media platforms to engage with brands and other customers. The chapter also presents the Saudi market as being lucrative for a wide range of brands and highlights the use of social media platforms in this market. While social media has become a source of information and a communication tool with which Saudi customers can engage with brands, it has also become a major driver of the transformation of Saudi customers’ lifestyles and behaviours, including consumption and customers behaviours. The following chapter presents a literature review of CEB.

## **Chapter 3 Literature Review**

### **3.1 Introduction**

In the previous chapters the background information and context of the research were provided. In this chapter a review of the literature related to the research is provided. This includes a brief history of how CEB was developed in the marketing literature. It also overviews the theoretical lenses of CEB. The chapter also provides an overview of different definitions and conceptualisations of the CEB construct and reviews engagement behaviours on social media platforms, specifically, Twitter. It also reviews the antecedents and outcomes of CEB. Thereafter, it presents a selection of the CEB construct and the potential antecedents and outcomes. The chapter concludes with a summary of the key findings of the literature review.

### **3.2 Engagement**

The word ‘engage’ is a verb that has several different meanings, each of which emphasises behaviour (van Doorn et al., 2010). Descriptions that are commonly used in English dictionaries to define the word include the following:

- (1) to occupy the attention or efforts of a person or persons;
- (2) to attract, hold fast or involve; and
- (3) to interlock with or become connected (Oxford Dictionary of English, 2010; Engage, 2019a, 2019b, 2019c).

All these definitions imply a behavioural focus and it is about being involved, attracted, connected, committed and interested.

As a concept, engagement may seem relatively new in the marketing discipline, but the term first appeared in an academic journal in 1990 (O’Byrne, 2013) in another field of the social sciences (e.g., Kahn, 1990). Over the last two decades, the term

'engagement' has been developed in a variety of academic disciplines, such as psychology (e.g., Achterberg, et al., 2003), information systems (e.g., Wagner & Majchrzak, 2006), educational psychology (e.g., London et al., 2007), organisational behaviour (e.g., Schaufeli, et al., 2002) the political sciences (e.g., Grudens-Schuck, 2000) and, more recently, marketing (e.g., van Doorn et al., 2010).

Due to the significant growth in the use of social media platforms, engagement has become an important concept in marketing as researchers and practitioners seek new ways for understanding and managing the complex shift in communications between customers and brands. Notably, the growth of Web 2.0 has led to a shift in marketing communications (Barger & Labrecque, 2013). The unique characteristics of Web 2.0 allow customers to participate in a variety of brand-related activities in different forms of Internet-mediated environments (Gómez et al., 2019). Customers clearly have a variety of means to communicate with one another online, such as through blogs, discussion forums, online communities, chat rooms, review sites and social media platforms (De Valck et al., 2009; Goldsmith & Horowitz, 2006; Barger & Labrecque, 2013). They use Web 2.0 to express and disseminate their knowledge, experiences and opinions about products and services (De Valck et al., 2009). As a result, customers are empowered to actively behave in ways that can be a source of value for both customers and businesses (de Oliveira Santini, et al 2020; Hollebeek, et al., 2021; Kumar et al., 2010; van Doorn et al., 2010). For example, customers can expand their relationship with the brand, express their experiences, spread word of mouth with others, contribute to product development and co-create their experience with the brand, all of which influence firm performance (Barari, et al., 2021)

The continuing growth of customers participation in brand-related activities via Internet-mediated environments has captured the interest of both academics and

marketers due to its role in future business performance (Bagozzi & Dholakia, 2006). The first streams of research that aimed to investigate and explain this phenomenon mainly used ‘customer participation’ as a dominant term. Most studies prior to 2010 used this concept to investigate participation behaviour and the nature of communication within the online environment (e.g., Bagozzi & Dholakia, 2002, 2006; Dholakia et al., 2004). While a large group of studies have selected online communities as a research setting, different concepts have been used, including participation (e.g., Schlosser, 2005), online community participation (e.g., Bagozzi & Dholakia, 2002) and customer participation (e.g., Bagozzi & Dholakia, 2006; Dholakia et al., 2004). However, despite the important insights that have been gleaned from ‘participation’ research in the marketing literature, more recently, scholarly emphasis has shifted towards concepts and theoretical perspectives that either explain or predict the dynamics and interactive nature of customer/brand relationships within social media settings more explicitly (Hollebeek et al, 2014).

Therefore, the concept ‘engagement’ began to appear in marketing literature in 2005 (Brodie et al., 2011) when Algesheimer et al (2005) used it in a study that investigated the brand community engagement of admirers of cars. Hence, a second stream of research began to use the term ‘engagement’ to enhance academic insight into customer behaviour within complex online environments. Engagement-based concepts include community engagement, which was used in the study by Algesheimer et. al. (2005), the customer engagement process (Bowden, 2009), customer engagement behaviour (CEB) (Van Doorn et al., 2010), online engagement (Mollen & Wilson, 2010), customer engagement (Brodie & Hollebeek, 2011), customer brand engagement (Hollebeek, 2011a, 2011b; Hollebeek et al., 2014), etc. Accordingly, ‘engagement’ has been viewed as a promising concept that is expected to provide ‘enhanced predictive and

explanatory power of focal customer behaviour outcomes, including brand loyalty' (Hollebeek et al., 2014, p. 149). In this thesis, the concept of CEB is adopted and the thesis follows the theoretical study of van Doorn et al. (2010) because CEB is considered highly relevant to the marketing communications on social media platforms (de Oliveira Santini, et al 2020; Maslowska et al., 2016; Triantafillidou & Siomkos, 2018; Yadav & Pavlou, 2014).

In the literature, customer engagement has been viewed as transformative to marketing research for several reasons. As technology continues to evolve, the engagement-facilitating technological platforms is anticipated to grow which will offer revolutionary opportunities for customer/brand interactivity and relationship (Hollebeek, et al., 2021). Therefore, the ability to increase the levels of customer engagement is expected to lead to superior organisational performance outcomes, including product development (Nambisan & Baron 2007; Sawhney et. al., 2005), sales growth (Neff, 2007), relationship formation (Brodie et al., 2013) and profitability (Rishika et. al., 2013). Consequently, customer engagement has been presented as a key metric for gauging brand performance (Hollebeek et al., 2014).

### **3.3 The Concept of Customer Engagement**

Engagement is a relatively new concept in the marketing literature in comparison with other marketing concepts (e.g., customer participation) (Hollebeek et al., 2014; de Oliveira Santini, et al 2020), having first developed in 2010 (e.g., van Doorn, 2010; Brodie & Hollebeek, 2011). It has notably been afforded more attention in the literature of other fields, such as organisation (e.g., Saks, 2006), education (e.g., Bryson & Hand. 2007; London et al., 2007) and social psychology (Achterberg et al., 2003). Currently, engagement as considered a fundamental driving force behind modern customer behaviour and decision making in academic marketing (Gambetti & Graffigna, 2010).

While the subject of engagement has generally focused on the ‘consumer’ or ‘customer’ engagement in the marketing literature (e.g., Bowden, 2009; Brodie et al., 2011, Brodie et al., 2013; Gambetti & Graffigna, 2010; Patterson et al., 2006; Vivek et al., 2012), other terminology has also evolved, such as CEB (van Doorn et al., 2010), customer brand engagement (Hollebeek, 2011a), media engagement (Calder et. al., 2009), user engagement (O’Brien & Toms, 2013), social brand engagement (Kozinets, 2014) and online engagement (Mollen & Wilson, 2010), to reflect the nuances of the context in which it is used.

Customer engagement, or customer’s resource investment in his/her brand interactions (Hollebeek et al 2021; Kumar et al., 2019), has been defined in the marketing literature in widely different ways, according to its conceptualisation. However, Brodie et al. (2011) developed five propositions as the basis for a general definition of customer engagement as follows:

P1: Customer engagement reflects a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g., a brand) in focal service relationships.

P2: Customer engagement occurs under a specific set of context-dependent conditions generating differing customer engagement levels.

P3: Customer engagement exists as a dynamic, iterative process within service relationships that co-create value.

P4: Customer engagement plays a central role in a nomological network governing service relationships in which other relational concepts (e.g., involvement, loyalty) are antecedents and/or consequences in iterative customer engagement processes.

P5: Customer engagement is a multidimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioural dimensions.

Many studies have attempted to conceptualise engagement from a variety of views and perspectives. Notably, three main themes can be identified in the extant literature: engagement as a psychological state (or process) (e.g., Bowden, 2009; Calder et al., 2016; Higgins & Scholer, 2009; Sashi, 2012); engagement as a behavioural manifestation (e.g., Bijmolt et al., 2010; Dolan et al., 2016; Jaakkola & Alexander, 2014; van Doorn et al., 2010; Verhoef et al., 2010; Wallace et al., 2014); and engagement as a multidimensional construct that embraces both the psychological and behavioural dimensions (Brodie et al., 2011; Dessart et al., 2015; Harrigan et al., 2017; Hollebeek, 2011a, 2011b; Patterson et al., 2006; Sarkar & Sreejesh, 2014). Despite recent progressions in the marketing on the concept of customer engagement, the overall understanding of the concept remains fragmented (Bilro & Loureiro, 2020). The extant literature shows a lack of consensus among scholars regarding both the definition and conceptualisation of customer engagement on different forms of social media platforms such as Twitter (Bilro & Loureiro, 2020; de Oliveira Santini, et al 2020). It has become clear that engagement has many different meanings and definitions because scholars have used this concept to describe different phenomena. Table 3-1 presents the key engagement studies in marketing literature including the view of engagement, definitions, dimensions, etc.

Recently, some scholars have argued that this diversity of existing definitions on engagement and interpretation of engagement confuses researchers and limits further conceptual developments (e.g., Calder et al., 2016; Maslowska et al., 2016). Maslowska et al. (2016) have suggested that scholars should focus on more specific terms to explain

different aspects of customer engagement. For example, Maslowska et al. (2016, p. 478) stated;

‘It is a serious problem when scholars use the same term to mean different things . . . one solution to this problem is to use a more specific term for various components of engagement’.

Dolan et al., (2019), Dolan et al., (2016) and Schivinski et al., (2016) strongly supported this view. Hence, a focus on behavioural manifestations of customer engagement has emerged in the marketing literature. They defined and measured engagement as a behavioural construct rather than as an affective/cognitive and behavioural one.

The current study adopts the behavioural perspective of engagement. Romero (2017) argued that, while a multidimensional perspective of customer engagement may provide a comprehensive framework for better understanding of the concept, it also creates some concerns and issues. For example, it strays from focusing on the behavioural dimension, which some researchers (Dolan et al., 2019; Romero, 2017; van Doorn, 2010) have suggested is the main component of customer engagement. In addition, a multidimensional conceptualisation of customer engagement also complicates its measurement (Romero, 2017).

The extant literature not only shows some disagreement among scholars regarding how customer engagement should be defined and conceptualised but it highlights a lack of coherent and mutual understanding of the concept’s dimensions (see Hollebeek, et al., 2021; de Oliveira Santini, et al 2020). Patterson et al. (2006) stated that the main dimensions of customer engagement are absorption, dedication, vigour and interaction. Although So et al. (2014) considered absorption and interaction in the customer engagement construct, they replaced the vigour and interaction dimensions with

enthusiasm, attention and identification. Vivek et al. (2014) considered attention as well, but they also included enthused participation and social connection. Hollebeek, et al., (2014) proposed cognition, affection and activation. Consequently, customer engagement, when considered multidimensional, is difficult to conceptualise and measure (Romero, 2017), and distinguishing between some of its dimensions, antecedents and outcomes is also challenging. For example, certain customer engagement dimensions, such as identification, could be antecedents of customer engagement (Romero, 2017). By contrast, the behavioural perspective makes a clear distinction between CEB and their antecedents and outcomes (Romero, 2017), making it appropriate for developing a comprehensive framework to understand CEB, including its antecedents and outcomes.

Many academics have also viewed the behavioural aspect of engagement as being directly related to social media communications (e.g., Dolan et al., 2016; Dolan et al., 2019; Gummerus et al., 2012; Jahn & Kunz, 2012; Javornik & Mandelli, 2012; Libai, 2011; de Oliveira Santini, et al 2020; Schivinski et al., 2016; Triantafillidou & Siomkos, 2018; Verhoef et al, 2010; Wallace et al., 2014). In fact, CEB on social media platforms have developed communications between brands and customers (Dolan et al., 2019; Hollebeek, et al., 2021; Hudson, et al., 2016). In the social media platforms, CEB can manifest via a wide variety of actions, such as posts (e.g., links, photos, videos and texts), comments, replies, likes, dislikes, reviews and/or shares (Barger & Labrecque, 2013; Dolan et al., 2016; Shahbaznezhad et al., 2021). Opportunities are endless for people to engage with brands and other customers on social media platforms. Cheung et al., (2011) have differentiated between the behavioural and psychological aspects of customer engagement through social media platforms by arguing that a psychological state of customer engagement, which is characterised by vigour, absorption and dedication, drives the behavioural customer engagement, which involves participation and word of mouth.

To conclude, although it is acknowledged that the cognitive, affective and behaviour components are important aspects of customer engagement (Brodie et al., 2011; Hollebeek, 2011b; Triantafillidou & Siomkos, 2018; van Doorn et al., 2010), this thesis adopts the behavioural perspective with a customer focus for the following reasons.

1. It is argued that engagement is more about the active role of the customer (the customer's actions and behaviours) than about their thoughts and feelings; thus, it should not be confused with other psychological constructs (Hall-Phillips et al., 2016; Javornik & Mandelli, 2012; Romero, 2017; Triantafillidou & Siomkos, 2018; Wirtz et al., 2013).
2. While there has been some disagreement among scholars regarding the dimensionality of customer engagement, several researchers have viewed customer engagement on social media platforms as a 'behavioural manifestation' (e.g., Barari et al., 2021; Barger et al., 2016; Cheung et al., 2011; Dolan et al., 2016; Fujita et al., 2020; Gummerus et al., 2012; Hamzah et al., 2021; Jahn & Kunz, 2012; Javornik & Mandelli, 2012; Libai, 2011; Schivinski et al., 2016; Triantafillidou & Siomkos, 2018; Tsai & Men, 2017; Verhoef et al., 2010; Wallace et al., 2014).
3. The behavioural perspective fits well in the social media context because customers often engage in non-purchase behaviours with brand-related content on social media platforms (Hall-Phillips et al., 2016; Maslowska et al., 2016; Triantafillidou & Siomkos, 2018), such as Twitter.
4. The behavioural perspective is regarded as the main component of customer engagement (Maslowska et al., 2016; van Doorn et al., 2010) because it presents the interactive role of customers with brands (Javornik & Mandelli, 2012; Triantafillidou & Siomkos, 2018).

**Table 3-1***The Key Engagement Studies in Marketing*

<b>Author(s), Year</b>	<b>Paper type</b>	<b>Concept</b>	<b>View of engagement</b>	<b>Definition</b>	<b>Engagement Focus</b>	<b>Dimensions</b>
Patterson, et al, (2006)	Conceptual	Consumer engagement	Psychological and behavioural	The level of a customer's physical, cognitive and emotional presence in their relationship with the organisation.	Service organisation	Absorption, dedication, vigour and interaction.
Bowden (2009)	Conceptual	Consumer engagement process	Psychological process	A psychological process that models the underlying mechanisms by which customer loyalty forms for new customers of a service brand as well as the mechanisms by which loyalty may be maintained for repeat purchase customers of a service brand.	Service brand	N/A
van Doorn et al. (2010)	Conceptual	Customer engagement behaviour	Behavioural	Customers' behavioural manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers.	Brand/firm	Behavioural
Verhoef et al., (2010)	Conceptual	Consumer engagement	Behavioural	Behavioural manifestation towards the brand or firm that goes beyond transactions.	Brand/firm	Behavioural
Mollen & Wilson (2010)	Conceptual	Customer engagement	Psychological	A cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value. It is characterized by the dimensions of dynamic and sustained cognitive processing and the satisfying of instrumental value (utility and relevance) and experiential value (emotional congruence with the narrative schema encountered in computer-mediated entities).	Brand	Affective, cognitive
Brodie et al., (2011)	Conceptual	Consumer engagement	A psychological state	A psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/ object (e.g., a brand) with within specific service relationships.	Service brand/organisation	Behavioural, cognitive, affective

**Table 3-1***The Key Engagement Studies in Marketing*

<b>Author(s), Year</b>	<b>Paper type</b>	<b>Concept</b>	<b>View of engagement</b>	<b>Definition</b>	<b>Engagement Focus</b>	<b>Dimensions</b>
Hollebeek, (2011a)	Conceptual	Consumer-brand engagement	Psychological and behavioural	The level of an individual customer's motivational, brand-related and context dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activity in direct brand interactions	Brand	Behavioural, cognitive, affective
Hollebeek, (2011b)	Qualitative	Consumer-brand engagement	Psychological and behavioural	The level of a customer's cognitive, emotional and behavioural investment in specific brand interactions	Brand	Behavioural, cognitive, affective
Vivek et al, (2012)	Qualitative	Consumer engagement	Psychological and behavioural	The intensity of an individual's participation in and connection with an organization's offerings and/or organizational activities, which either the customer or the organization initiate.	Organisational offering or activities	Behavioural, cognitive, affective, social
Brodie et al. (2013)	Qualitative	Consumer engagement	Psychological and behavioural	A multidimensional concept comprising cognitive, emotional, and/ or behavioural dimensions, and plays a central role in the process of relational exchange where other relational concepts are engagement antecedents and/or consequences in iterative engagement processes within the brand community.	Brand	Cognitive; Emotional; Behavioral
Hollebeek et al., (2014)	Empirical	Consumer brand engagement	Psychological and behavioural	A consumer's positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/ brand interactions.	Brand	Cognitive processing (Cognitive); Affection (Emotional); Activation (Behavioural)
Dolan, et al., (2019)	Empirical	Socia Media Engagement behaviour	Behavioural	a customer's behavioral manifestations that have a social media focus beyond purchase, resulting from motivational drivers	Brand	Active and Passive behaviours

**Table 3-1***The Key Engagement Studies in Marketing*

<b>Author(s), Year</b>	<b>Paper type</b>	<b>Concept</b>	<b>View of engagement</b>	<b>Definition</b>	<b>Engagement Focus</b>	<b>Dimensions</b>
Barari, et al, (2021).	Empirical	Customer engagement	Attitudinal and behavioural engagement	Customer engagement includes attitudinal and behavioural engagement in which attitudinal engagement is a direct predictor of behavioural engagement	Firm and other actors	Attitudinal and behavioural engagement

### 3.4 The Theoretical Lenses to Examine Customer Engagement

The extant literature shows that most of the customer engagement research does not mention the adoption of a specific theory for the study of customer engagement (Islam & Rahman 2016). While there is no common agreement on the theoretical foundation of the concept, various theories have been used on customer engagement, including service-dominant (S-D) logic (e.g., Brodie et al., 2011; Brodie et al., 2013; Hollebeek, 2011b; Vivek et al., 2014) and uses and gratification theory (UGT) (e.g., De Vries & Carlson, 2014; Verhagen et al., 2015). More recently, Pansari and Kumar (2017) argued that engagement occurs only in a relationship that is characterised by satisfaction and emotional connectedness between partners. The final two theories include relationship marketing theory (e.g., Bowden, 2009; Brodie et al., 2011; Brodie et al., 2013; Hollebeek, 2011b; Vivek et al., 2012, 2014) and social exchange theory (e.g., Hollebeek, 2011b; Verleye et al., 2014). Notably, relationship marketing theory and service dominant logic have both been broadly utilised as theoretical lenses to explore customer engagement (Islam & Rahman, 2016; Rosado-Pinto & Loureiro, 2020). However, the following sections detail these key theories and justify the use of social exchange theory (Blau, 1964), relationship marketing (Vivek et al., 2012) and uses and gratification theory (UGT) (Katz & Foulkes, 1962) in the current study.

**a. Service-dominant logic.** S-D logic (Vargo & Lusch, 2004) views all businesses as service providers, whether they offer products or services, and service as the fundamental bases of exchanges that occur between two parties, with one using its skills and capabilities for the benefit of the other (Lusch et al., 2007). Hence, S-D logic is based on interactive experience and value co-creation, and it focuses on the value that is realised from the dynamic processes of serving. Therefore, this theory offers ‘a transcending view of relationships,’ which proposes a broader relational perspective that views customer behaviour outcomes as a result of

customers' particular interactive, value co-creative experiences with organisations and/or other stakeholders (Brodie et al., 2011; Vivek et al., 2012). S-D logic is underpinned by 11 fundamental premises (FPs) (Vargo & Lusch, 2004, 2008, 2017). Five of these FPs were more recently (Vargo & Lusch, 2017) identified as core foundational premises (axioms) because they emphasise the role of institutions and institutional arrangements in systems of value co-creation (see table 3-2).

**Table 3-2**

*Foundational Premise of the Service-Dominant (S-D) Logic*

<b>Foundational Premise</b>	<b>Descriptions</b>	<b>Axiom</b>
F1	Service is the fundamental basis of Exchange	Axiom 1
F2	Indirect exchange masks the fundamental basis of exchange.	
F3	Goods are distribution mechanisms for service provision.	
F4	Operant resources are the fundamental source of strategic benefit.	
F5	All economies are service economies.	
F6	Value is cocreated by multiple actors, always including the beneficiary.	Axiom 2
F7	Actors cannot deliver value but can participate in the creation and offering of value propositions.	
F8	A service-centered view is inherently beneficiary oriented and relational.	
F9	All social and economic actors are resource integrators.	Axiom 3
F10	Value is always uniquely and phenomenologically determined by the beneficiary.	Axiom 4
F11	Value cocreation is coordinated through actor-generated institutions and institutional arrangements.	Axiom 5

Adapted from Vargo and Lusch, 2017

Previous research has considered S-D logic relevant to the concept of customer engagement. Brodie et al. (2011) suggested four premises from S-D logic (premises 6, 8, 9, 10) as particularly related to the concept of customer engagement:

- Premise 6 states that ‘Value is co-created by multiple actors, always including the beneficiary’, which highlights that value creation happens within the interactive and co-creative relationships between customers and/or other actors.
- Premise 8 states that ‘A service-centred view is inherently beneficiary oriented and relational’, which underlines the shift towards a focus on interaction and relationships.
- Premise 9 states that ‘All social and economic actors are resource integrators,’ which reveals a networked structure.
- Premise 10 states that ‘Value is always uniquely and phenomenologically determined by the beneficiary’, which emphasises the experiential, idiosyncratic and contextual nature of the value co-creation concept.

Further, Vivek et al. (2012) suggested incorporating S-D logic into customer engagement studies to capture the role of current or potential customers in interacting, immersing and co-creating with the brand, its employees, other people and/or society in general. Specifically, Jaakkola and Alexander (2014) applied the conceptual thinking of S-D logic in CEB studies to explain how CEBs accrue value outcomes for different actors (e.g., customer, firm and other stakeholders) through exchanges of resources and interactions. Therefore, S-D logic provides a conceptual foundation for the development of the customer engagement concept, which reflects the role of networks of actors in value co-creation.

**b. Uses and gratifications theory.** UGT, which originated from communication and media literature, seeks to understand both why and how individuals actively seek out and use specific media to satisfy specific needs (Katz et al., 1973; Katz & Foulkes, 1962). UGT is used to understand customers' motivation to engage with specific types of media content (McQuail, 2010). This theory has been adapted to customer engagement studies to understand the drivers of engagement behaviour in the social media context (e.g., De Vries & Carlson, 2014; Verhagen et al., 2015). It provides a basis for understanding the antecedents to customer engagement on a social media platform and holds that people use media channels to obtain certain benefits, which drive media usage. UGT's framework (Katz et al., 1973) identifies four broad types of perceived benefits that individuals can derive from media usage: (a) cognitive benefits that relate to information acquisition and improved understanding of the environment; (b) social integrative benefits that relate to strengthening customers' ties with relevant others; (c) personal integrative benefits that relate to strengthening the credibility, status and confidence of the individual; and (d) hedonic or affective benefits, such as those that strengthen aesthetic or pleasurable experiences (Nambisan & Baron, 2009). Accordingly, these benefits result in increased participation and interaction in the media channel (Nambisan & Baron, 2007). UGT's perspective has also been adopted in CEB studies. Dolan et al. (2016) provided a model based on UGT for how an organisation can stimulate positive engagement behaviour and dissuade negative engagement behaviour through social media platforms.

**c. The theory of engagement.** Developed recently by Pansari and Kumar (2017), this theory proposes that the two tenets of engagement are satisfaction and emotion because engagement occurs only after a relationship is formed and based on trust and commitment. This theory is not restricted to the relationship between the firm and the customer; it could be applied to all the stakeholders of the firm (Pansari & Kumar, 2017). Therefore, the theory argues that, when a relationship is satisfying and has emotional connectedness, the partners become

engaged in their concern for each other. Thus, the process of engaging customers is logically the next step after relationship formation. This theory is based on relationship marketing (Morgan & Hunt, 1994) and interdependence theory (Thibaut & Kelley, 1959), which focus on the interaction between partners as the essence of close relationships.

The theory also suggests that firms are focusing on the quality of the relationship that they establish with their customers and the maximum output beyond purchases that their customers can provide. It further argues that a quality relationship can be achieved through increasing the level of satisfaction and emotional connectedness towards this relationship. Therefore, engagement between the firm and the customer can be achieved if the firm achieves trust, commitment and a satisfied and emotional relationship with the customer.

**d. Social exchange theory.** The social exchange theory refers to ‘voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others’ (Blau, 1964, p. 91). The theory builds on the principal that one person does another a favour, and while there is a general expectation of some future return, its exact nature is not stipulated in advance (Blau, 1964). Therefore, in the business realm, one partner (e.g., a brand) does another (e.g., a customer) a favour (e.g., by providing a good quality product), while this relationship is expected to have some future return (e.g., customer loyalty) (Hollebeek, 2011b). Partners engage in activities as a means of obtaining desired goals, and these activities involve some cost to the engaging partner, such as time, energy, resources, etc., the exchange partners strive for balance in the relationship in terms of cost and reward. For example, customers are predicted to exchange positive thoughts, feelings and behaviours towards an object (e.g., a brand) upon receiving specific benefits from the brand relationship (Hollebeek, 2011b; Pervan et al., 2009). Accordingly, the social exchange perspective is relevant to the interactive nature of CEB (Hollebeek, 2011b). The theory has been utilised in

several studies to explore the customer engagement concept. In particular, Verleye, et al., (2014) adopted the theory to explain how organisational socialisation, organisational support and support from other customers increase customers' role readiness, resulting in higher levels of all forms of CEBs.

**e. Relationship marketing theory.** The theoretical roots of customer engagement lie in the relationship marketing domain (Brodie et al., 2013; Vivek et al., 2012). Additionally, Ashley et al., (2011) suggested that the relationship marketing theory is a broader conceptual framework for studying customer engagement. The theory postulates that all marketing activities should be directed towards establishing, developing and maintaining successful relational exchange (Morgan & Hunt, 1994). Therefore, the core objective of a firm is to establish and maintain positive relationships with its customers through developing commitment and trust with them. Accordingly, the objective of relationship marketing is to establish long-term relationships with customers that promote efficiency, productivity and effectiveness (Morgan & Hunt, 1994).

Within the abovementioned broadened relationship marketing domain, the firm's focus is on existing and potential customers as well as customer communities and their value co-creative networks (Vivek et al., 2012). Therefore, customer engagement offers an expanded view of relationship marketing, which Vivek et al. (2012) termed an 'expanded domain of relationship marketing'. They argued that relationship marketing focuses too much on retention and not enough on the acquisition of customers. Thus, they suggested incorporating customer engagement into relationship marketing to capture the interactions with and experiences of both existing and potential customers, who subsequently derive value from these experiences and interactions. Various studies have utilised this theory to explore customer engagement. In particular, van Doorn et al. (2010) explored the concept of CEB from the relationship marketing perspective.

To conclude, it can be seen from the discussion above that the uses and gratifications theory (UGT) offers an appropriate foundation for understanding the socially related antecedents of CEB in this thesis. Social integrative benefits refer to social interactions and ties between participants that are established and develop over time within social media platforms and give members a sense of belonging (Katz et al., 1973; Nambisan & Baron, 2007; Tonteri et al., 2011). Given that social interaction motives are related to an individual's social relationships on a social media platform, it could be assumed that CEB is related to social interactions and ties with others on a social media platform (Tonteri et al., 2011).

In addition, this thesis views CEB with a brand on Twitter as an interactive relationship that requires customers' perceived experiences of brand interactions (Hollebeek, 2011; Vivek et al., 2012). Thus, all engagement behaviours on Twitter between different partners (e.g., customers and the brand's representatives) become 'social exchanges' because customers engage in such communications as a means of obtaining desired goals (Blau, 1964). These engagements and communications between partners are thought to establish, develop and maintain successful relational exchanges (Morgan & Hunt, 1994). Accordingly, this perspective is consistent with the expanded domain of relationship marketing, which emphasises the notions of interactivity and customer experience (Vivek et al., 2012), as well as social exchange theory, which emphasises reciprocal exchange in interactions (Blau, 1964; Hollebeek, 2011).

### **3.5 Definition and Conceptualisation of Customer Engagement Behaviour**

van Doorn et al. (2010) considered customer engagement as a behavioural construct and coined it 'CEB', they conceptualised CEB as a 'construct with the objective to capture how and why customers behave in numerous ways that are relevant to the firm and its multiple stakeholders' (p. 253). They focused on the behavioural aspects of the relationship between the customer and the firm, and they defined CEB as 'customers' behavioural manifestations that

have a brand or firm focus, beyond purchase, resulting from motivational drivers' (van Doorn et al., 2010, p. 254). Their definition underlined five elements:

1. The customer's role in the engagement behaviour, which is aligned with the customer-centric paradigm in marketing theory (Javornik & Mandelli, 2012).
2. The action of the customer (behavioural manifestation), which highlights the active role of customers in the consumption process (Javornik & Mandelli, 2012).
3. CEB go beyond transactions and do not require a purchase.
4. CEB have a brand/firm focus.
5. Behaviours are the result of motivational drivers.

Furthermore, van Doorn et al. (2010) proposed a general view of all possible conceptualisations of engagement and distinguished and described five dimensions of CEB, including valence, form or modality, scope, nature of impact and customers' engagement goals, from a firm perspective. Valence can be either positive or negative. A positively valenced CEB, such as recommending a brand to friends and family, while a negative valenced CEB could be an action such as unfollowing the brand. The form/modality dimension refers to the different ways in which CEB can be expressed by customers (e.g., types of resources, such as time or money that customers may invest in participating). The scope refers to temporal (e.g., ongoing or momentary) and geographic (e.g., local or global) aspects of CEB, while the nature of its impact refers to the effect of CEB in terms of immediacy, intensity, breadth and longevity. The last dimension is the customers' goals for engaging which refers to the customers' purpose when engaging (e.g., engage to learn about a brand). This thesis focuses on the "customers' goal" as categorisation criterion because the focus of this study is what motivates customers to engage with the brand.

Similarly, the Marketing Science Institute (MSI) views CEB as customers' behavioural manifestations towards a brand or firm beyond a purchase, which results from motivational

drivers, including word-of-mouth (WOM) activity, recommendations, customer-to-customer interactions, blogging, writing reviews etc. (MSI, 2010). They view these behaviours as an avenue for creating, building and enhancing customer-brand relationships and improving business performance.

Verhoef et al. (2010) also focused on CEB as an overarching construct that captures non-transactional customer behaviour, which is consistent with van Doorn et al.'s (2010) definition. Verhoef et al. (2010) considered CEB a behavioural manifestation towards the brand or firm that goes beyond transactions, and they only differed in that they did not mention motivational drivers. They proposed customer engagement as a construct that consists of multiple behaviours, such as WOM, blogging, providing customer ratings, etc.

This view was also supported by Bijmolt et al. (2010), who discussed how key behavioural manifestations of customer engagement, such as WOM, cocreation behaviour and complaining behaviour, can be included in the concept of customer engagement. Customer reviews were also used to explore CEB in a study by Wei et al (2013). They considered providing customer reviews one of the most common behavioural manifestations of CEB.

Jaakkola and Alexander (2014) focused on the behavioural manifestation of customer engagement through which 'customers make voluntary resource contributions that have a brand or firm focus but go beyond what is fundamental to transactions, occur in interactions between the focal object and/or other actors and result from motivational drivers' (p. 248). They suggested four types of CEB: augmenting, co-developing, influencing and mobilising.

More recently, scholars have measured social media-related engagement as a behavioural construct (e.g., Dolan et al., 2016, Dolan et al, 2019; Hamzah et al., 2021; Schivinski et al., 2016; Shahbaznezhad, et al., 2021; Triantafillidou & Siomkos, 2018). Dolan et al. (2016) adapted the definition of CEB from van Doorn et al. (2010, p. 254) to reflect social media engagement behaviour when they proposed 'social media engagement behaviour'

(SMEB): ‘SMEBs go beyond transactions and may be specifically defined as a customer’s behavioural manifestations that have a social media focus [adapted] beyond purchase, resulting from motivational drivers’ (Dolan et al., 2016, p. 265). Schivinski et al. (2016), who focused on measuring CEB with brand-related social media content (CEBSC), defined and measured customer engagement as a behavioural construct rather than as an affective/cognitive and behavioural one. They suggested that the CEBSC construct includes the consumption, contribution and creation dimensions.

To conclude, van Doorn et al.’s (2010) definition of CEB appears to be the most widely accepted definition in the literature with the most recent studies on CEB (e.g., Dolan et al. 2016, Dolan et al, 2019; Gummerus et al., 2012; Hamzah et al., 2021; Jaakkola & Alexander, 2014; Romero, 2018; Roy et al., 2018b; Schivinski et al. 2016; Shahbaznezhad, et al., 2021; Triantafillidou & Siomkos, 2018). Following Van Doorn’s definition of CEBs, this thesis defines CEB as a customer's behavioural manifestations toward a brand or firm, beyond purchase, resulting from motivational drivers (van Doorn et al., 2010).

### **3.6 Customer Engagement Behaviours**

Customer engagement behaviours (CEBs) are behavioural manifestations that revolve around a firm and/or brand, go beyond the purchasing transaction and have important consequences for brands, including the potential to enhance customer-brand relationships and brand performance (Bijmolt et al., 2010; de Oliveira Santini, et al 2020; Hollebeek, et al., 2021; Kumar et al., 2010; van Doorn et al., 2010; Verhoef et al., 2010). Examples of CEBs include customers posting, liking, sharing and giving feedback on social media platforms. These behavioural manifestations allow customers to engage with brands and other customers which in turn strengthen the relationship between customers and the brand and create value for both the customer and the brands (de Oliveira Santini, et al 2020; Hollebeek, et al., 2021; van Doorn et al., 2010). These behaviours are of importance to marketers because they not only affect

brand loyalty (e.g., Gong, 2018), brand reputation (van Doorn et al., 2010), brand equity (e.g., Dwivedi et al., 2016) and product development (e.g., van Doorn et al., 2010) but may also affect other customers (e.g., Dolan et al., 2016).

The extant literature has indicated numerous behaviours that are considered dimensions of CEB. However, ‘the ways in which customers may choose to engage—the dimensions of CEB’ (van Doorn et al., 2010, p. 255), are diverse, as shown below.

- van Doorn et al. (2010) considered numerous customer behaviours, including WOM activity, recommendations, helping other customers, blogging, posting and writing reviews, as different manifestations of the CEB construct.
- According to Verhoef et al. (2010), the CEB construct consists of WOM, blogging, providing customer ratings, etc.
- Bijmolt et al. (2010) limited the behavioural manifestations to WOM, co-creation and complaining related behaviours.

All these behaviours are suggested as CEBs that may directly influence the brand and/or customers. These conceptual studies have developed a valuable and descriptive overview of possible engagement behaviours that could form the construct of CEB; however, empirical examinations are needed to define the dimensions of the CEB construct.

Previous studies have also suggested certain behavioural manifestations that may be either more important or relevant than others among different contexts. Providing customer reviews is considered one of the most common behavioural manifestations of customer engagement in the hospitality context. For example, they were used to explore CEB in a study by Wei et al. (2013). In addition, Romero (2017) focused on two important CEBs for hospitality firms: WOM and co-creation. In his more recent research, Romero (2018) also conceptualised CEB as a composite of four engagement behaviours: WOM, referrals, content generation and suggestions.

Some authors have focused on a specific type of engagement behaviour. For example, Jaakkola and Alexander (2014) focused on co-creating behaviours wherein customers make voluntary resource contributions towards the firm and other stakeholders. They suggested four types of CEBs: augmenting, co-developing, influencing and mobilising. Roy et al (2018a) examined and confirmed these four CEB types and suggested that CEB is a higher order construct, and customers who are engaged with their providers contribute a wide range of resources. Dwivedi et al., (2016) specified three categories of engagement behaviour: collecting brand information, participating in brand marketing activities and interacting with other people.

Several studies have attempted to specifically study social media CEB. For example, Dolan et al. (2016) identified seven types of engagement behaviours: co-creation, positive contribution, consumption, dormancy, detachment, negative contribution and co-destruction. Similarly, Schivinski et al. (2016), who focused on measuring customer engagement with brand-related social media content (CEBSC), suggested three types of behaviours: the consumption, contribution and creation dimensions. In addition, Dolan et al (2019) and Shahbaznezhad, et al., (2021) measured social media engagement behaviour through two dimensions including active engagement (e.g., creating and contributing) and passive engagement (e.g., consuming). Although these studies referred to CEB by different terms, the authors adopted van Doorn et al.'s (2010) definition and did not explain why they decided to rename van Doorn et al.'s (2010) original term. However, for the purpose of this study the van Doorn et al.'s (2010) original term is used.

In addition, previous studies that consider customer engagement as a multidimensional construct (Brodie, et al., 2013; Dessart et al., 2016; Hollebeek, 2011, Hollebeek, et al, 2014; Vivek et al., 2012) included the behavioural dimension as a vital part of their studies and suggested different forms of engagement behaviours. For example, Brodie et al. (2013)

included engagement behaviours such as learning, sharing, advocating, and co-developing. Dessart et al. (2015, 2016) clarified the existence of engagement behaviour within the social media context through three manifestations: learning, sharing and endorsing behaviours. The behavioural aspect of customer engagement is also presented in the framework of So et al. (2014) within the interaction dimension, including the sharing and exchanging of ideas, opinions and feelings about experiences with the brand and other customers.

This review on CEB construct revealed that there is limited common conceptualisation of the behavioural dimension of engagement and limited coherent and mutual understanding of what constitutes CEB (see Gong, 2018). Previous studies have operationalised the behavioural aspect of customer engagement by using different behaviours that are commonly accepted by the literature. Table 3-3 summarises the engagement behavioural of selected customer engagement studies. In essence, CEB construct is considered brand-related behavioural manifestations of engagement, which can include but are not limited to a variety of consumers' behavioural manifestations, such as WOM activities, helping others, blogging, writing reviews, liking, commenting, co-creation and content sharing. The following section discusses the dimensionality of CEB that was adapted for this study and provides an explanation and justification for selecting this dimensionality.

**Table 3-3***Overview of the Behavioural Dimensions in Selected Customer Engagement Studies*

<b>Author</b>	<b>Research Type</b>	<b>View of Customer Engagement</b>	<b>Engagement behaviour</b>	<b>Dimension</b>
van Doorn et al. (2010)	Conceptual	Behavioural	WOM activity, recommendations, helping other customers, blogging, posting and writing reviews	CEB
Verhoef et al. (2010)	Conceptual	Behavioural	WOM, blogging, providing customer ratings	CEB
Bijmolt et al. (2010)	Conceptual	Behavioural	WOM, co-creation and complaining related behaviours.	CEB
Brodie et al. (2013)	Empirical	Multidimensional	Learning, sharing, advocating, socialising and co-developing	CEB
Verleye, et al. (2014)	Empirical	Behavioural	Helping Other Customers, Positive WOM, Feedback, Cooperation and Compliance	CEB
Dessart et al., (2016)	Empirical	Multidimensional	Sharing, learning and endorsing	CEB
Schivinski et al. (2016)	Empirical	Behavioural	Consumption, contribution and creation dimensions	Brand-Related Social-Media Content
Dwivedi et al. (2016)	Empirical	Behavioural	Collecting brand information, participating in brand marketing activities and interacting with other people.	Brand Engagement Behaviours
Dolan et al. (2016)	Empirical	Behavioural	Co-creation, positive contribution, consumption, dormancy, detachment, negative contribution and co-destruction.	Social media Engagement Behaviour

**Table 3-3***Overview of the Behavioural Dimensions in Selected Customer Engagement Studies*

<b>Author</b>	<b>Research Type</b>	<b>View of Customer Engagement</b>	<b>Engagement behaviour</b>	<b>Dimension</b>
Maslowska et al. (2016)	Conceptual	Behavioural	Observing, participating and co-creating	Brand dialog behaviours
Roy et. al. (2018a)	Empirical	Behavioural	augmenting, co-developing, influencing and mobilising	CEB
Romero (2018)	Empirical	Behavioural	WOM, referrals, content generation and suggestions.	CEB
Gong (2018)	Empirical	Behavioural	Brand loyalty, Brand-positive word of mouth and Brand feedback	Customer brand engagement behaviour
Triantafillidou and Siomkos (2018)	Empirical	Behavioural	Consuming and contributing.	CEB
Mirbagheri and Najmi (2019).	Empirical	Multidimensional	Consumption, Contribution and Creation	Participation
Dolan, et al. (2019)	Empirical	Behavioural	Active behavioural engagement (creating and contributing) and Passive behavioural engagement (consuming)	Social media Engagement Behaviour
Shahbaznezhad et al. (2021)	Empirical	Behavioural	Active behavioural engagement (comments) Passive behavioural engagement (likes)	Users Engagement behaviour
Chen et al. (2021)	Empirical	Behavioural	Reuse intention, feedback intention, and WOM intention.	Customer Engagement behaviour
Hamzah et al. (2021)	Empirical	Behavioural	Like, Share and Comment	CEB

### **3.7 Dimensionality of Customer Engagement Behaviour on Social Media**

An analysis of different behavioural engagement in the literature offers a suitable foundation for the development of the behavioural engagement construct and its dimensions for the purpose of this study. Based on the literature review, CEB can be categorised into three groups—learning, sharing and endorsing behaviours. Table 3.4 provides an overview of the categories and subcategories of CEB, as extracted from the literature.

As shown in Table 3.4, learning behaviour on social media platforms can include many activities, such as consuming brand-related content (Dolan et al., 2019; Muntinga et al., 2011; Schivinski et al., 2016), collecting brand information (Dwivedi et al., 2016), observing (Maslowska et al., 2016) and seeking assistance (Baldus et al., 2015; Izogo & Mpinganjira, 2020). In addition, sharing behaviour on social media platforms can also include many activities, such as creating brand-related content (Dolan et al., 2019; Muntinga et al., 2011; Schivinski et al., 2016), sharing (Dolan et al., 2019; Hamzah et al., 2021), making suggestions (Romero, 2018), word-of-mouth (WOM) activity (Chen et al., 2021; Gong, 2018; Romero, 2018), helping other customers (Braun et al., 2016; Carlson et al., 2018; Roy et al., 2018b; van Doorn et al., 2010), commenting (Dolan et al., 2019; Hamzah et al., 2021; Shahbaznezhad et al., 2021) and providing feedback (Gong, 2018; Izogo & Mpinganjira, 2020; Pansari & Kumar, 2017). Lastly, endorsing behaviour on social media platforms includes a variety of activities, such as liking brand-related content (Dolan et al., 2019; Gummerus et al., 2012; Hamzah et al., 2021; Shahbaznezhad et al., 2021), referring (Carlson et al., 2019; Pansari & Kumar, 2017), recommending (van Doorn et al., 2010), participating in brand marketing activities (Dwivedi et al., 2016), influencing (Carlson et al., 2019; Roy et al., 2018a) and advocating (Brodie et al., 2013). Therefore, most previous studies have viewed behaviours like learning, sharing and endorsing as important aspects of CEB (e.g., Baldus et al., 2015; Brodie et al., 2013; Dessart

et al., 2016; Dolan et al., 2019; Gummerus et al., 2012; Hamzah et al., 2021; Leckie et al., 2016; Schivinski et al., 2016; Shahbaznezhad et al., 2021; van Doorn et al., 2010).

Based on the discussion above, the dimensions of learning, sharing and endorsing capture most of the relevant CEBs that may occur on social media platforms (e.g., Twitter) (Brodie et al., 2013; Dessart et al., 2016; Dolan et al., 2019). Accordingly, this thesis operationalises the CEB construct by espousing the dimensions of learning, sharing and endorsing, which were tested by Dessart et al. (2016) within the online brand community context. Therefore, this thesis adapts the validated dimensions of behavioural engagement from those determined by Dessart et al. (2016), including learning, sharing and endorsing. Figure 3.1 depicts the three dimensions of the CEB construct.

The validated dimensions of behavioural engagement determined by Dessart et al. (2016), including learning, sharing and endorsing, were found to be relevant and appropriate for adoption in this study for the following reasons.

1. Dessart et al. (2016) defined the behavioural dimensions of customer engagement as a customer's behavioural manifestation towards either a brand or a firm beyond a purchase that results from motivational drivers. This aligns with the CEB definition of van Doorn et al. (2010) and other CEB researchers (e.g., Dolan et al., 2019; Schivinski et al., 2016; Shahbaznezhad et al., 2021; Triantafillidou & Siomkos, 2018; Verhoef et al., 2010) and the definition that this thesis adopts.
2. Dessart et al. (2016) tested these dimensions using two different engagement foci: a brand and an online community of consumers interested in a brand. Thus, it is relevant in the social media context (e.g., Twitter) where interactions occur with users (e.g., customers of the brand) and brands. It is important to understand that, even though CEB has a brand focus, the participant networks on social media platforms comprise a much

broader collection of actors, including other current and potential customers, suppliers, the general public, regulators, firm employees, etc. (van Doorn, 2010).

3. As discussed above, critical reviews of the different CEB frameworks in the literature have indicated that these dimensions capture most of the relevant CEBs that may occur within social media platforms (e.g., Twitter).

However, it is important to understand that these are not the only possible dimensions of CEB because the construct can be categorised based on the nature of engagement, such as scope and nature of impact (van Doorn, 2010) (see Section 3.5). In this thesis, customers' reasons for engagement (customers' goal) represent the key categorisation criterion for CEB dimensionality because this thesis is interested in studying CEB from the customer's perspective (van Doorn, 2010). In this regard, the purpose of the three dimensions (i.e., learning, sharing and endorsing) is clearly different (Dessart et al. 2016). For example, the purpose of learning is seeking help or information, gaining information and/or locating answers; the purpose of sharing is exchanging resources and information and/or helping others; and the purpose of endorsing is to sanction, like, approve and/or promote (Dessart et al., 2016). Consequently, CEB, including learning, sharing and endorsing behaviours, can manifest on Twitter through tweets, replies, retweets with comments, mentions and/or direct messages. The three dimensions are explained and detailed below, with a focus on the Twitter platform.

**Learning behaviour** includes seeking content, information, experiences, ideas and/or other resources about a brand from a brand and/or its other customers (Brodie et al., 2013; Dessart et al., 2016; van Doorn et al., 2010). Learning can be driven by customers who are willing to learn about and acknowledge the brand (Brodie et al., 2013; Dessart et al., 2016; Dolan et al., 2016; Muntinga et al., 2011) through collecting brand information (Dwivedi et al., 2016), observing (Maslowska et al., 2016) and/or seeking assistance (Baldus et al., 2015; Izogo & Mpinganjira 2020). Java et al. (2007) found that people use Twitter to talk about their daily

activities and to seek or share information. In this sense, customers seek help, advice, ideas, resources and information from the brand and/or other customers. Thus, learning behaviour can manifest on Twitter through different activities. For example, customers can read or view brand-related tweets (e.g., comments and product reviews, videos, audio, pictures, images, links, etc.). Customers can also ask (other customers or a brand's customer services department) questions about the brand via Twitter to help them learn how to improve their experience with the brand, solve any issues that they might have with the brand, learn more about the brand, etc. (Schau et al., 2009).

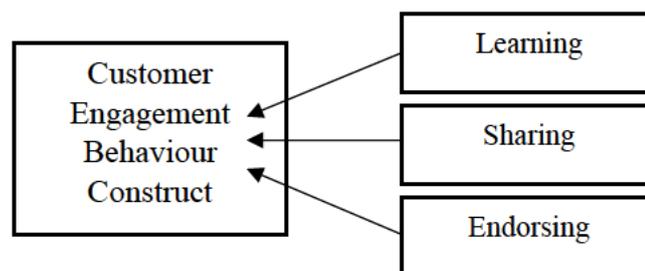
**Sharing behaviour** includes providing content, information, experience, ideas and/or other resources about a brand to a brand and/or its other customers (Brodie et al., 2013; Dessart et al., 2016; Schivinski et al., 2016; van Doorn et al., 2010; Vivek et al., 2012). Sharing can be driven by customers who are willing to provide resources through exchanging experiences, information and knowledge (Brodie et al., 2013; van Doorn et al., 2010), sharing interesting content (Dessart et al., 2016), making suggestions for developing the brand's offering (Brodie et al., 2011; van Doorn et al., 2010) and making suggestions to improve the brand's consumption experience and use (Schau et al., 2009; van Doorn et al., 2010). In the Twitter context, a pioneering study by Jansen et al. (2009) found that Twitter is a prominent online tool for customers to share and exchange information, knowledge, opinions, comments and experiences about companies and their products and services. Sharing behaviour can manifest on Twitter through commenting and/or spreading WOM via tweets and/or retweets of a wide variety of posts about a brand (links, videos and texts). Customers can also share brand-related information via a hashtag (#) (e.g., #haveacokeday), which quickly links them to a multitude of Twitter users who have an interest in the same brand.

**Endorsing behaviour** includes showing support for, referring and/or recommending specific brands, products, services and/or firms (Brodie et al., 2013; Dessart et al., 2016;

Gummerus et al., 2012; Jaakkola & Alexander, 2014; van Doorn et al., 2010). Endorsing behaviour can take the form of promoting or actively defending a brand and saying positive things about it (Brodie et al., 2013; Dessart et al., 2016). Previous studies have suggested that likes and comments are important metrics for CEB on Twitter (e.g., Oh et al., 2017), and a higher number of likes and positive comments corresponds to a higher level of CEB (He et al., 2013). In this sense, customers can manifest endorsing behaviour on Twitter through liking brand-related content, referring brand-related posts to other customers and/or cultivating interest in a brand by mentioning (tagging) another customer (a friend) (Carlson et al., 2019; Dolan, et al., 2019; Dwivedi et al., 2016; Hamzah et al., 2021; Roy et al., 2018a; Shahbaznezhad et al., 2021). Table 3.5 provides additional examples of CEB manifestations on Twitter for the three dimensions.

**Figure 3-1**

*The Three Dimensions of the Customer Engagement Behaviour*



Adapted from Dessart et al. (2015)

**Table 3-4***Overview of the Three Dimensions of CEB*

<b>Dimension</b>	<b>Definition</b>	<b>Customer goals</b>	<b>References</b>	<b>Sub-dimensions</b>	<b>Selected References</b>
Learning	The behaviour of seeking content, information, experiences, ideas and/or other resources about a brand and/or firm from a firm and/or its other consumers.	Seeking help or information; gaining information; locating answers	Algesheimer et al., 2005; Brodie et al., 2013; Dessart et al., 2016; van Doorn et al., 2010	Consumption	Dolan et al. (2019); Muntinga et al. (2011); Schivinski et al. (2016)
				Collecting brand information	Dwivedi et al. (2016)
				Observing	Maslowska et al. (2016)
				Seeking assistance	Baldus et al. (2015); Izogo and Mpinganjira (2020)
Sharing	The behaviour of providing content, information, experience, ideas and/or other resources about a brand and/or firm to a firm and/or its other consumers.	Exchanging resources and information; helping others	Brodie et al., 2013; Dessart et al., 2016; Schivinski et al., 2016; van Doorn et al., 2010; Vivek et al., 2012	Creation	Dolan et al. (2019); Muntinga et al. (2011); Schivinski et al. (2016)
				Share	Dolan et al. (2019); Hamzah et al. (2021)
				WOM activity	Chen et al. (2021); Gong (2018); Romero (2018)
				Suggestions	Romero (2018)
				Helping other customers	Braun et al. (2016); Roy et al. (2018b); van Doorn et al. (2010)
				Providing feedback	Gong (2018); Izogo and Mpinganjira, (2020); Pansari and Kumar (2017)

**Table 3-4***Overview of the Three Dimensions of CEB*

<b>Dimension</b>	<b>Definition</b>	<b>Customer goals</b>	<b>References</b>	<b>Sub-dimensions</b>	<b>Selected References</b>
Endorsing	The behaviour of showing support for, referring and/or recommending specific brands, products, services and/or firms.	Like, approve, support, promote	Brodie et al., 2013; Dessart et al., 2016; Gummerus et al., 2012; Jaakkola & Alexander, 2014; van Doorn et al., 2010	Referring	Pansari and Kumar (2017)
				Liking	Dolan et al. (2019); Gummerus et al. (2012); Hamzah et al., (2021); Shahbaznezhad et al., (2021)
				Recommending	van Doorn et al. (2010)
				Participating in brand marketing activities	Dwivedi et al. (2016)
				Influencing	Carlson et al. (2019); Roy et al., (2018a)
				Advocating	Brodie et al. (2013)

**Table 3-5***Manifestations of Customer Engagement Behaviour on Twitter*

Twitter Manifestations	Manifestation Examples	Engagement Behaviour
CEB can manifest on Twitter through tweets, replies, retweets with a comment, mentions and/or direct messages.	<ul style="list-style-type: none"> <li>- Reading or viewing brand-related tweets, such as comments, product reviews, videos, audio, pictures, images, links, etc.</li> <li>- Searching for brand-related information using Twitter</li> <li>- Contacting a company’s support or customer care service via Twitter</li> </ul>	Learning
	<ul style="list-style-type: none"> <li>- Spreading WOM via tweets and/or retweets of a wide variety of posts about a brand (photo, links, videos and texts)</li> <li>- Commenting via tweets on brand-related content (photo, links, videos and texts).</li> <li>- Tweet about ideas for new goods or services</li> <li>- Tweet product reviews</li> <li>- Share brand-related information via a hashtag (#)</li> </ul>	Sharing
	<ul style="list-style-type: none"> <li>- Following a brand on Twitter</li> <li>- Using the ‘like’ mechanism on Twitter and liking brand-related content</li> <li>- Promoting the brand</li> <li>- Cultivating interest in a brand by retweeting a brand or another customer’s tweet</li> <li>- Tweeting (or retweeting) to defend a brand and/or say positive things about it</li> </ul>	Endorsing

**3.8 Antecedents of Customer Engagement Behaviour**

According to van Doorn et al. (2010), CEB stems from motivational drivers. Numerous antecedents have been proposed to affect CEB in the literature (see Table 3.6). Examples include customer satisfaction, self-enhancement, personality and brand responsibility. The antecedents are related to customers (e.g., commitment, satisfaction and identity), the brand (e.g., brand attitude strength, brand ownership and brand attachment), the firm (e.g., service quality and service convenience) and the content (e.g., informational content and entertaining content). However, different scholars have noted that further research is needed to investigate

other types of antecedents of CEB within social media platforms to give marketers a better understanding of the CEB phenomenon within that context (Bilro & Loureiro, 2020; Dolan et al., 2017; Hapsari, 2017; Rosado-Pinto & Loureiro, 2020; Touni et al., 2020).

Notably, prior studies have highlighted the significance of establishing social relationships that provide a sense of tie, belonging and social interactions on social media platforms (e.g., Chiu et al., 2006; Chu & Kim, 2011; Park et al., 2009; Pelletier et al., 2020; Phua et al., 2017; Ridings & Gefen, 2004; Tonteri et al., 2011; Whiting & Williams, 2013; Yuksel & Labrecque, 2016). Individuals use social media platforms to develop social relationships and meet other people, seek support and friendship and find a sense of belonging (Chiu et al., 2006; Yuksel & Labrecque, 2016). While it has been suggested that social relationships are the primary activity among social media platform users (Brandão et al., 2019; Chu & Kim, 2011; Warner-Søderholm et al., 2018), it is argued that obtaining emotional support (Ridings & Gefen, 2004), sharing feelings and ideas with friends and colleagues (Park et al., 2009), seeking and receiving social support from people they trust (Ridings et al., 2002; Warner-Søderholm et al., 2018) and/or creating harmonious relationships within the platform (Kang et al., 2021) can motivate individuals to join a social media platform and engage in online communication (Chu & Kim, 2011; Kang et al., 2021).

**Table 3.6***The antecedents of CEB in Selected Studies*

Antecedents	Reference	Paper Type
Satisfaction, Trust/commitment, Identity Consumption goals, Resources, and Perceived costs/benefits	Van Doorn et al. (2010)	Conceptual
Relationship quality, Rewards, Self-enhancement, Learning, Social integration, and Company Identification.	Romero (2018)	Empirical
Service convenience, Service fairness, and Service quality	Roy et al. (2018b)	Empirical
Self-concept (ideal vs desired self), Personality, Mood and Motivation.	Groeger et al. (2016)	Empirical
Satisfaction and Emotion	Pansari and Kumar (2017)	Conceptual
Informational content, Entertaining content, Remunerative content and Relational content	Dolan et al. (2016)	Conceptual
Product involvement, Brand attitude strength, Emotion towards the brand, and Brand attachment	Alversia et al. (2016)	Conceptual
Participative brand development, Brand Ownership, Brand responsibility, and Self enhancement	Gong (2018)	Empirical
Customer social Identification	Prentice et al. (2019)	Empirical
Store Brand Equity, Store Ambience, Store Design, Information Richness, Employee Responsiveness and Service Convenience	Roy et al. (2020)	Empirical
Goal pursuit (gratifying-the-self, enabling-the-self, and enriching-the-self) and Emotional attachment to the community	Li & Han (2021)	Empirical

Indeed, some studies have attempted to understand the role of socially related antecedents in engagement (Table 3.7). For example, previous studies have examined social influence (Algesheimer et al., 2005), social identity (Tsai & Men, 2013) and social interaction (Chen et al., 2021). However, few studies have focused on the social relationship factors (e.g., homophily and tie strength) that may serve as antecedents of CEB on Twitter; therefore, further

research is needed to investigate the social relationship factors that may both affect and drive CEB (e.g., Ajiboye et al., 2019). In particular, previous studies have not fully addressed the social relationship factors that may facilitate CEB on social media platforms (Ajiboye et al., 2019). Other social relationship factors, such as homophily and tie strength, require confirmation across different social media platforms.

**Table 3.7**

*The Social Related Antecedents of CEB in Selected Studies*

<b>Social-related Antecedents</b>	<b>Platform Type</b>	<b>Research Type</b>	<b>Reference</b>
Social influence	A brand community for European car club	Empirical	Algesheimer et. al. (2005)
Social identity	Social networking sites	Empirical	Tsai and Men (2013)
Social identity and Social benefits	Online brand community	Conceptual	Wirtz et al. (2013)
Social value	Social media environment	Empirical	De Vries et al. (2014)
Social Integration	Virtual environment	Empirical	Romero (2018)
Social interaction ties	Facebook	Empirical	Hinson, et al. (2019)
Trust and Social influence	Facebook	Empirical	Azar et al. (2016)
Socializing	Facebook	Empirical	Triantafillidou and Siomkos (2018)
Social interaction motivation	Sina Weibo (premier social networking platform of China)	Empirical	Chen et al. (2021)

From the literature on customer behaviour and social networks, tie strength (Brown & Reingen, 1987) , homophily (Gilly et al., 1998), trust (Nisbet, 2005), and interpersonal influence (e.g., informational influence) (Bearden et al., 1989) have been designated as the focal dimensions that characterise the nature of social relationships on social media platforms (Chu & Kim, 2011; Phua et al., 2017). Additionally, tie strength, homophily and trust have been suggested by some scholars to have an effect on social media platform users' engagement with brand communities and intention to seek, provide and give opinions about brands on these platforms (e.g., Chu & Kim, 2011; Kang et al., 2021; Phua et al., 2017; Shan & King, 2015).

Given the above, this thesis empirically investigates tie strength, homophily and trust as key antecedents of CEB on Twitter. The following section explains the meanings of each of these social relationship factors and their potential relationships with CEB.

### **3.8.1 Tie Strength**

Tie strength refers to ‘the potency of the bond between members of a network’ (Mittal et al., 2008, p. 196). Social ties can be classified as either strong or weak (Granovetter, 1973). Strong ties represent valued, close relationships within an individual’s personal network, such as family and friends. Conversely, weak ties represent less personal social relationships, such as those with acquaintances and colleagues. According to the Strength of Weak Ties Theory of Granovetter (1973), tie strength among members in a network affects the ease of knowledge transfer and sharing. Both strong and weak ties significantly influence information dissemination (Goldenberg et. al., 2001). Best and Krueger (2006) argued that the level of interaction that occurs between people who have met on the Internet positively relates to social ties. Social media platform users form social relationship with others and share information, experiences and emotion, engage in repeated interaction and establish social norms (Best & Krueger, 2006; Warner-Søderholm, et al., 2018). Perceived tie strength in online networks can significantly affect users’ sharing intention on social media platforms (Ma et. al., 2014). In addition, Phua et al. (2017) found that tie strength significantly moderated the relationship between frequent use of social media platforms (e.g., Twitter and Facebook) to follow brands and brand community-related outcomes (i.e., brand community identification and membership intention). Therefore, the need for social ties is considered a major motivation for engaging with social media platforms, such as Twitter (Sun et al., 2017), making tie strength relevant to studying the effect of social relationships on CEB.

### **3.8.2 Homophily**

Homophily refers to the degree to which individuals who interact with one another are similar regarding either certain attributes or have shared common beliefs, values, experiences and lifestyles (Gilly et al., 1998; Rogers & Bhowmik, 1970). The theory of homophily posits that people tend to associate and interact with similar people regarding a variety of qualities and characteristics (McPherson et. all., 2001). The theory builds on the principal that contact between similar people occurs at a higher rate than among dissimilar people (McPherson, et all., 2001). In a social media platform, such as on Twitter, homophily means that people with similar characteristics tend to form social relationships (e.g., follow each other via Twitter), which also often impacts their behaviour. Therefore, homophily is a social relationship factor that is useful for explaining the effect of social relationships on CEB.

Previous studies have shown that homophily is ubiquitous in online social networks (Xiang et. al., 2010). In addition, friends and members of social networks tend to have similar socio-demographic characteristics (e.g., gender, race and age) and perceptual attributes (e.g., beliefs and attitudes) (e.g., Han et al., 2015; Kordzadeh, et al., 2014; Xu & Zhou, 2020). Wang et al. (2008) argued that homophily drives the entire persuasive process in online discussion groups. In addition, homophily could activate the connections among social media platforms users to commence the information exchange process (Brown & Reingen, 1987; Xu & Zhou, 2020). Thelwall (2008) found that homophily for specific attributes, such as age and attitude, were reasons for joining a social media platform.

### **3.8.3 Trust**

Trust, or ‘a willingness to rely on an exchange partner in whom one has confidence’ (Moorman et al., 1993, p. 82), is a social relationship factor that has become central to participating in social media (Chow & Chan, 2008; Pentina et al., 2013). Trust between two parties in a social network context enables them to build and maintain relationships, and that

established trust may extend to other members in the network, which will improve the overall trust within the network.

The established level of trust plays a vital role in determining an individual's decision to engage with other networks to exchange either information or other resources (Leonard & Onyx, 2003). Nahapiet and Ghoshal (1998) argued that parties who trust each other are more willing to engage in cooperative activity. Trust is considered an important factor for the connections and interactions on the social media platforms (Coppola, et al., 2004; Warner-Søderholm et al., 2018) because successful interactions rely on the level of trust that friends have with each other (Sherchan et al., 2013; Warner-Søderholm et al., 2018). Indeed, a higher level of trust will encourage more information sharing among members who communicate through digital networks as well as ensure the use of that information (Robert et al., 2008). Trust has also been found to be a significant predictor of a virtual community member's desire to exchange information (Ridings et al., 2002); thus, it is a predictor of virtual community activity. Previous studies have indicated that trust is one component of attitudes towards participation in virtual communities (Lin, 2006; Ridings et al., 2002). Additionally, Ng (2013) and Rohm et. al. (2013) revealed that consumers share and seek information (e.g., social interest, products, services, etc.) with friends and/or colleagues on social media platforms because an atmosphere of trust has been established between them in this platform. Furthermore, trust is considered a key factor in establishing successful long-term relationships (Pennanen et al., 2007), making it critical for customers to engage.

### **3.9 Moderating Effects: Susceptibility to Informational Influence**

Previous studies have suggested that susceptibility to interpersonal influence is an important customer trait in the study of customer behaviour, which varies across individuals (Bearden et al., 1989; McGuire, 1968; Wang et al., 2012). Furthermore, interpersonal influence

plays an important role in customer decision making (e.g., Lord et al., 2001). Bearden et al. (1989) identified two dimensions of interpersonal influence: normative and informational. Normative influence is the tendency to conform to the expectations of others to gain rewards or avoid punishment, while informational influence is the tendency to accept information from knowledgeable others (Bearden et al., 1989). However, it has been argued that seeking information in an online environment (e.g., social media platforms) and the intention to accept and follow the advice obtained there are voluntary actions that do not imply gaining rewards or avoiding possible punishments from others (Casaló et al., 2011). Accordingly, this study focuses on susceptibility to informational influence rather than susceptibility to normative influence because the susceptibility to informational influence is relevant to the study's scope. More specifically, susceptibility to informational influence causes customers to value information from others (e.g., their social networks in Twitter) (Bearden et al., 1989), and it occurs when customers either search for information or engage in brand interactions on social media platforms (Casaló et al., 2011; Chu & Kim, 2011; Wang et al., 2012).

Some scholars have also suggested that investigating the direct effects of customer traits and attributes may be obvious and that investigating the moderating effects of customer traits and attributes is much more meaningful (e.g., Casaló et al., 2011; Dhabolkar & Bagozzi, 2002; Wiertz et al., 2007). Therefore, in this thesis, investigating the moderating rather than the direct effect of susceptibility to informational influence in the social media context has been proposed. Indeed, informational influence occurs when customers conform to their peers' views in an attempt to be correct; in that sense, customers conform to their social networks, which they think know more than they themselves do. Thus, they value their opinions when discussing products and/or brands (i.e., they see their social networks as a source of information). Accordingly, customers who are highly susceptible to informational influence are likely to depend on their online social networks to form engagement behaviours. Therefore,

a customer's susceptibility to informational influence is considered to moderate the effects of the antecedents of CEB.

### **3.10 Outcomes of Customer Engagement Behaviour**

van Doorn et al. (2010) categorised the outcomes of CEB, based on the received benefits of CEB, into three groups: customers, firms and others. Customers' outcomes are attitudinal, emotional, physical and related to identity; outcomes for firms include financial, reputation, regulatory, competitiveness employees and products; and outcomes for others include customer welfare, economic surplus, social surplus, regulation and cross-brand and cross-customer benefits. This study has developed a valuable and descriptive overview of all possible outcomes for CEB; however, empirical examinations are still needed to test the applicability of these outcomes in different settings and contexts.

Jaakkola and Alexander (2014) divided the outcomes of CEB into customers, firms and other stakeholders. In their study, they examined the value outcomes of such CEB in a services context. They argued that, through CEB, engaged customers contribute diverse resources, such as knowledge, skills and experiences, towards the focal firm and/or other stakeholders; therefore, these resources may modify and/or augment the offering and/or affect other stakeholders' perceptions, preferences, expectations and actions towards the firm and/or its offering. They identified a range of value outcomes for the focal customer (e.g., improved offerings), the focal firm (e.g., innovative ideas) and other stakeholders, such as prospective customers (e.g., reduction of perceived risk in purchase decisions).

Groeger et al. (2016) also examined the outcomes of non-paying CEBs for the firm, individuals and individual networks. They studied the engagement behaviours of non-paying customers who were participating in customer campaign trials, and they indicated various outcomes for firms, such as future purchases, awareness and influence, access to

appropriate/matched customer networks and co-creation of product/brand experience. Regarding individuals, they indicated several outcomes, such as brand/product self-identification, enhanced knowledge/experience and recognition. For individual networks, they indicated curated/filtered exposure, free trials and premiums for campaign participation.

Different from van Doorn et al.'s (2010) model, Verhoef et al.'s (2010) conceptual model does not include individual customers (i.e., improved financial decision making) and societal outcomes (i.e., consumer welfare and economic surplus). They argue that CEB may affect important marketing metrics, such as customer retention, customer lifetime value, customer equity and new product performance, which subsequently should affect firm value. Pansari and Kumar (2017) focused only on the firm-level outcomes of CEB, suggesting that CEB have tangible (direct) and intangible (indirect) benefits for a firm. The tangible benefits can be seen in firm performance (higher profits, revenue or market share), while the intangible benefits include permission marketing, privacy sharing and the ability to make marketing messages more relevant.

The literature also relates the concept of CEB to a number of marketing relationship outcomes. Some studies have associated CEB with desired marketing relationship outcomes. For example, a conceptual study by Maslowska, et al., (2016) posited that brand dialogue behaviours, which they define in the same way as CEB is defined in van Doorn et al. (2010)'s study, may result in increased satisfaction, loyalty and customer lifetime value, and they indicated a need for better understanding of the outcomes of CEB phenomena from empirical standpoints.

Previous studies have also evidenced the outcomes of CEB within the social media context. For example, a recent study by Pentina et al. (2018) indicated that CEB in a social media context have different potentials for luxury brand cocreation, depending on different factors, such as degree of applied effort and creativity, but not in the choice of social media

platform. Notably, Chiang et al. (2017) found significant effects of CEB in social media regarding enhancement of the relationship of users with social community members, brands and products. Lastly, Dwivedi et al. (2016) used CEB to explain consumers' willingness to pay a premium for a brand.

Studies on customer engagement that adopt the multidimensional view of the concept have attempted to identify the key outcomes of customer engagement, while the extant literature shows that outcomes of customer engagement are more established than outcomes of CEB. Conceptual studies have proposed numerous outcomes of engaging with brands. For example, Hollebeek (2011a) proposed trust, commitment, customer satisfaction and customer loyalty as outcomes of customer engagement. Brodie et al. (2011) also suggested customer satisfaction, commitment, trust, self-brand connection, emotional brand attachment and loyalty. Supporting Brodie et al.'s (2011) and Hollebeek's (2011a) conceptual studies, Brodie et al. (2013) empirically identified customer loyalty and satisfaction, consumer empowerment, connection and emotional bonding, trust and commitment as consequences of customer engagement. Other empirical studies have established and identified additional outcomes. For example, Hollebeek et al. (2014) established and validated self-brand connection and brand usage intent as outcomes of customer engagement. Calder et al. (2016) also identified consumption behaviour, purchase intention and attitude towards an ad as outcomes of customer engagement. Lastly, Dessart (2017) revealed the impact of engagement on brand trust, commitment and loyalty and suggested to validate these findings across different social media platforms.

Table 3.8 details the outcomes of the selected CEB studies. Numerous outcomes for CEB have been proposed in the literature. Examples include satisfaction and loyalty (Gummerus et al., 2012; Masłowska et al., 2016), purchase intention (Prentice et al., 2019), brand love (Hamzah et al., 2021; Wallace et al., 2014), self-brand connection and customer–

brand identification (Hamzah et al., 2021). Previous CEB studies have investigated the outcomes of different perspectives, such as brand-related outcomes (i.e., brand love or brand loyalty) (Hamzah et al., 2021; Leckie et al., 2021), customer-related outcomes (i.e., satisfaction and purchase intention) (Gummerus et al., 2012; Prentice et al., 2019) and firm-related outcomes (i.e., firm or product performance) (Pansari & Kumar, 2017; Verhoef et al., 2010).

**Table 3.8**

*The Outcomes of CEB in Selected Studies*

<b>Outcomes</b>	<b>Reference</b>	<b>Paper Type</b>
Customer-based (e.g., identity), Firm-based (e.g., financial), and Other (e.g., economic)	van Doorn et al. (2010)	Conceptual
Marketing metrics (e.g., customer retention, customer lifetime value, customer equity, and new product performance)	Verhoef, et al. (2010)	Conceptual
Satisfaction and Loyalty	Gummerus et al. (2012)	Empirical
Brand love and Advocacy	Wallace et al. (2014)	Empirical
Value Co-Creation	Jaakkola and Alexander (2014)	Empirical
Satisfaction, Loyalty and Customer lifetime value	Masłowska et al. (2016)	Conceptual
Willingness to pay price premium	Dwivedi et al. (2016)	Empirical
Tangible benefits (e.g., firm Performance), and Intangible benefits (e.g., Permission marketing)	Pansari and Kumar (2017)	Empirical
Purchase intention	Prentice et al (2019)	Empirical
Brand loyalty	Leckie et al. (2021)	Empirical
Brand love, Self-brand connection, and Customer-brand identification.	Hamzah et al. (2021)	Empirical

However, the literature on CEBs' outcomes has revealed that all insights into the specific outcomes of CEB remain largely nebulous (e.g., Hamzah et al., 2021; Pansari & Kumar, 2017; Touni et al., 2020; Żyminkowska et al., 2017). Various scholars have argued for the need for further research to investigate and identify CEBs' outcomes across different social media platforms (e.g., Masłowska et al., 2016; Pansari & Kumar, 2017; Touni et al., 2020). In

particular, Barari et al. (2021) indicated that the relationship between CEB and its outcomes requires further consideration, especially on social media platforms. Furthermore, while some conceptual and exploratory work exists regarding the outcomes of CEB, further empirical verification is still needed (see Barari et al. 2021; Maslowska et al., 2016; van Doorn et al., 2010).

Specifically, the potential outcomes of CEB on social media platforms are associated with customer–brand relationships (Dessart, 2017; Hudson et al., 2016; Vivek et al., 2014). Furthermore, many scholars have suggested that CEB is essential for building and maintaining strong customer–brand relationships (e.g., Dessart, 2017; Gambetti & Graffigna, 2010; Gummerus et al., 2012; Hudson et al., 2016; Kumar, 2020; van Doorn et al., 2010; Vivek et al., 2012; Vivek et al., 2014). While the use of social media platforms (e.g., Twitter) is increasing dramatically, and brands are integrating social media platforms into their communication strategies, few studies have investigated the role of CEB in establishing customer–brand relationships on social media platforms, such as Twitter (Ajiboye et al., 2019; de Oliveira Santini et al., 2020; Gummerus et al., 2012; Hollebeek et al., 2016; Kumar, 2020; Touni et al., 2020).

Although some researchers have investigated the impact of CEB on various brand-related outcomes, such as brand love, brand loyalty and brand advocacy, on social media (e.g., Hamzah et al., 2021; Leckie et al., 2021; Wallace et al., 2014), few agree on its influence on customer–brand relationships across a variety of social media platforms (e.g., Twitter) (Barari et al., 2021; de Oliveira Santini et al., 2020; Dessart, 2017; Kumar 2020; Maslowska et al., 2016; Touni et al., 2020). In particular, Dessart (2017) suggested that customer–brand relationships, including brand trust, brand commitment and brand loyalty, are significant outcomes of engagement in the context of social media platform. Therefore, this study focuses on the possible positive customer–brand relationship outcomes of CEB on Twitter, including

brand trust, brand commitment and brand loyalty. The following section details the meaning of each outcome and explains its potential relationships with CEB.

### **3.10.1 Brand Trust and Brand Commitment**

Previous studies on relationship marketing (e.g., Morgan & Hunt, 1994), brand-customer relationship (e.g., Chaudhuri & Holbrook, 2002) and customer engagement (e.g., Hollebeek, 2011a) have suggested that brand trust and brand commitment are closely related constructs that can be approached together as two facets of brand-related outcomes (Dessart, 2017). As such, this section introduces these concepts together. In this study, brand trust is ‘the willingness of the average consumer to rely on the ability of the brand to perform its stated function’ (Chaudhuri & Holbrook, 2002, p. 37). In that sense, the brand considers a partnership as one in which the customer has confidence that the brand is reliable, has high integrity and acts in his/her best interests (Morgan & Hunt, 1994). By contrast, brand commitment is ‘an average consumer’s long-term, behavioural and attitudinal disposition towards a relational brand’ (Chaudhuri & Holbrook, 2002, p. 37); as such, it represents a consumer’s desire to maintain a valued relationship with a brand (Dessart, 2017; Morgan & Hunt, 1994).

### **3.10.2 Brand Loyalty**

Brand loyalty is an important outcome in the marketing literature (De Villiers, 2015; He et al., 2012; Leckie et al., 2016). Specifically, customer engagement has been recognized as an essential determinant of brand loyalty (Li, et al., 2020). However, the way in which brand loyalty is operationalised and defined varies across studies. While some studies focus on one aspect of loyalty—either attitudinal loyalty (e.g., Kressmann et al., 2006) or behavioural loyalty (e.g., Romaniuk & Nenycz-Thiel, 2013)—others focus on both aspects (e.g., Chaudhuri & Holbrook, 2001). Brand loyalty has been defined by Oliver (1999, p. 34) as ‘a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future,

thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour', which emphasises both the behavioural and attitudinal aspects. Behavioural brand loyalty reflects the repeated purchases of the brand, whereas attitudinal brand loyalty includes a degree of dispositional commitment in terms of some unique value that is associated with the brand (Chaudhuri & Holbrook, 2001).

Accordingly, this study focusses on behavioural brand loyalty in line with Odin et al. (2001), who suggested that repeat purchases of the same brand are the most direct way to measure loyalty. Moreover, focusing on only behavioural loyalty is appropriate here because it helps avoid overlap with brand commitment, which this study considers an outcome of CEB. Therefore, repeat purchase behaviour is proposed as a satisfactory indicator of brand loyalty (Dessart, 2017).

### **3.11 Key Findings of the Literature Review**

The issues that are inherent to the extant literature on CEB are as follows:

First, despite the important advances of customer engagement research, research in the area of CEB in social media platform remains fragmented; therefore, various scholars have argued for the need for further research in this regard (Ajiboye et al., 2019; Davis et al., 2014; Hollebeek, et al., 2021; Maslowska et al., 2016; Ng, et al, 2020; Touni, et al., 2020). In particular, the literature currently contains a limited understanding of what comprises the CEB construct within social media platform, specifically on Twitter (e.g., de Oliveira Santini et al., 2020; Touni, et al., 2020). In addition, although a plethora of research has either conceptually proposed or qualitatively explored different types of CEBs on social media (e.g., Bijmolt et al., 2010; Jaakola & Alexander, 2014; Kumar et al., 2010; Maslowska et al., 2016; van Doorn et al., 2010; Verhoef et al., 2010), further quantitative research regarding CEBs on social media

platforms such as Twitter is suggested to enhance the understanding in this regard. Therefore, research about CEB should therefore incorporate quantitative studies that examine a larger sample of customers to lead to more findings that contribute to our knowledge of these behaviours.

Second, the existing social media-based studies of engagement have a narrow focus; therefore, they fail to provide a comprehensive understanding of CEB on social media platforms. For example, most of these studies focus on a specific online brand community (e.g., Dessart et al., 2015; Marbach et. al., 2016), brand pages (e.g., Cvijikj & Michahelles, 2013; Dessart, 2017; Triantafillidou & Siomkos, 2018; Tsai & Men, 2013), online review websites, such as TripAdvisor (e.g., Wei et al., 2013), a specific engagement behaviour, such as liking, commenting or sharing behaviour (Baldwin et. al., 2018; Kabadayi & Price, 2014) or the provision of social media content (Dolan et al., 2016). Therefore, further studies on CEB should provide a much broader view to capture and explain other forms of CEBs that may occur on social media platforms such as Twitter. In fact, sharing or liking are not the only forms of CEB that may occur in the social media platforms. For example, engagement behaviour with the brand in Twitter may occur in different forms (i.e., asking questions, seeking help or information, or reading and viewing posts). Such investigation would enhance our current understanding of CEB in this context.

Third, Facebook has been the focus of many CEB studies (e.g., Gummerus et al., 2012; Wallace et al., 2014), with little attention given to other social media platforms (Triantafillidou & Siomkos, 2018; Williams et al., 2013). Engagement is highly context specific, each social media platform has its unique characteristics in terms of functionalities, interface, features, content and the conduct of members on the platform (Voorveld et. al., 2018), and platforms differentiate themselves by offering unique capabilities and fulfilling various customers needs (Pelletier et al., 2020). This means that there are significant differences between platforms in

terms of use and co-creation behaviours (Pelletier et al., 2020). In particular, Twitter has been suggested as a beneficial customer engagement tool with the capability to improve customer engagement with the brand (de Oliveira Santini, et al, 2020; Read et al, 2019) Thus, investigating CEB across different types of social media platforms (e.g., Twitter) could yield fruitful insights in this regard (de Oliveira Santini, et al, 2020; Touni, et al, 2020).

Fourth, a few studies have attempted to understand the role of CEB in a network of nomological relationships with other constructs, but most of these studies lack empirical investigation and verification (e.g., Maslowska et al., 2016; van Doorn et al., 2010). As posited by Brodie et al., (2011), understanding the role of customer engagement within a broader network of nomological relationships with other relational concepts is an important issue on the customer engagement research agenda. As such, modelling CEB within its potential antecedents and outcomes will provide insights into the nature of CEB.

Fifth, although the literature highlights a growing interest in CEB, the question of what drives them on social media platforms remains largely nebulous (Barari et al., 2020). Various scholars have argued for the need for further research on key antecedents of CEB on social media platforms (e.g., Twitter) to enable marketers to achieve a better understanding of CEB in order to apply new strategies to engage customers with the brand (Ajiboye et al., 2019; Barger et al., 2016; Barari et al., 2021; Bilro & Loureiro 2020; Braun, et al., 2016; de Oliveira Santini, et al, 2020; Leckie et al., 2016; Touni et al., 2020). In addition, outcomes of CEB on social media platforms are also largely nebulous (e.g., Pansari & Kumar, 2017; Żyminkowska et al., 2017). Various scholars have argued for the need for further research to investigate and identify CEB outcomes across different platforms (e.g., Kumar 2020; Ajiboye et al., 2019; Gummerus et al., 2012; Hollebeek, Conduit & Brodie 2016; Touni, et al., 2020; de Oliveira Santini, et al 2020). It is argued that CEB on social media platforms can be a significant driver for enduring and favourable customer brand relationships (Kumar 2020; Touni, et al., 2020).

Therefore, investigating and confirming the potential impact of CEB on customer-brand relationships across different social media platforms (e.g., Twitter and Snapchat) is an urgent requirement.

Finally, previous studies have suggested susceptibility to informational influence as an important customer trait that varies across individuals (Bearden et al., 1989; McGuire, 1968; Wang et al., 2012). While the direct impact of susceptibility to informational influence on CEB seems to be somewhat obvious (see Chu & Kim 2011). It is therefore valuable for CEB phenomena to investigate the moderating role of the susceptibility to informational influence on the relationship between CEB and its antecedents to offer insight in what may cause the antecedents of CEB to be more effective.

### **3.12 Chapter Summary**

This chapter reviewed the literature on CEB and its antecedents and outcomes. The aim was to identify gaps in the existing CEB literature, which this thesis will address. The review identified the need for further investigation into the concept of CEB within the social media context specifically Twitter. The chapter suggested that it would be beneficial to empirically test and measure the CEB construct within the Twitter platform to enhance our understanding by detailing its conceptual and operational structures. It also detected the need to identify and validate potential antecedents and outcomes of CEB on Twitter and the need to examine the role of social relationship factors including tie strength, homophily and trust in driving CEB within the Twitter context. Finally, this chapter highlighted the need to confirm the potential impact of CEB on customer-brand relationships on Twitter. The following chapter presents the conceptual framework of CEB with the brand on Twitter.

## **Chapter 4 Conceptual Framework and Hypotheses Development**

### **4.1 Introduction**

The previous chapter included a literature review of CEB that identified gaps found in the literature and highlighted a selection of CEB constructs and potential antecedents and outcomes. This chapter presents the conceptual framework of this study. The conceptual framework modelled CEB via Twitter and proposed its key antecedents (tie strength, homophily and trust) and brand-related outcomes (brand trust, brand commitment and brand loyalty). Nine hypotheses are formed based on the literature to explain the relationships among the key variables in the model. The proposed conceptual framework and the hypotheses of the study are presented and detailed.

### **4.2 Conceptual Framework**

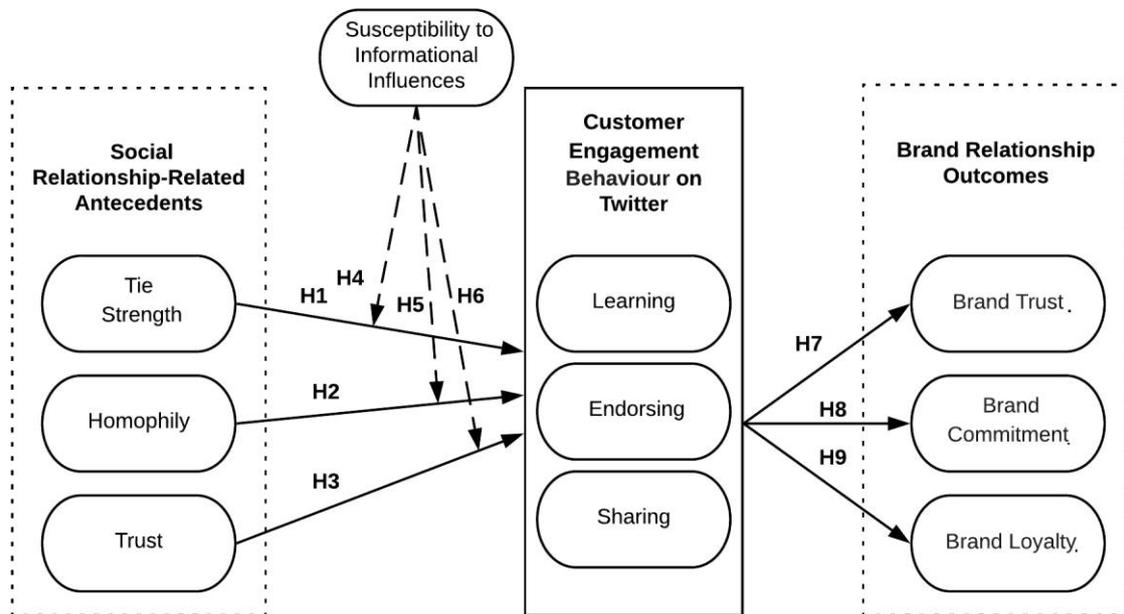
The conceptual model (see figure 4-1) proposes the following:

- (a) There are three antecedents of CEB on Twitter, including tie strength, homophily and trust.
- (b) Susceptibility to informational influence moderate the relationship between CEB and its antecedents on Twitter.
- (c) The dimensions of CEB construct in the framework include the learning, sharing and endorsing.
- (d) Brand trust, brand commitment and brand loyalty are the main outcome of CEB on Twitter.

The following explains the conceptual framework in more details.

**Figure 4-1**

*Conceptual Model of Customer Engagement Behaviour on Twitter with the Brand*



#### **4.2.1 Customer Engagement Behaviour on Twitter with the Brand**

The study model utilises the expanded domain of relationship marketing (Vivek et al., 2012) and social exchange theory (Blau, 1964) to understand CEB within the Twitter arena. The framework considers CEBs via Twitter as behavioural manifestations regarding a firm and/or brand that go beyond the purchase transaction and result from social relationship drivers. This engagement encompasses an interactive relationship with a brand and requires customers' perceived experiences of brand interactions (Hollebeek, 2011; Vivek et al., 2012). Thus, CEB involves the connection and interaction that existing and potential customers form with a brand on Twitter (e.g., tweeting about the brand or liking a post related to the brand) based on their experiences with the brand's offerings and activities (Vivek et al., 2012). In addition, all engagement activities on Twitter between different partners (e.g., customers, the brand's representatives) are 'social exchanges' because partners engage in such activities as a means of obtaining desired goals (Blau, 1964), and these engagement activities subsequently derive

value from all parties (Blau, 1964; Hollebeek, 2011; Vivek et al., 2012). For example, customers are predicted to share positive thoughts, feelings, ideas and experiences towards the brand upon receiving specific benefits from the brand relationship (Hollebeek, 2011). Accordingly, this perspective is consistent with the expanded domain of relationship marketing, which emphasises the notions of interactivity and customer experience (Vivek et al., 2012), as well as social exchange theory, which emphasises reciprocal exchange in interactions (Blau, 1964; Hollebeek, 2011).

Accordingly, the model operationalises the CEB construct by espousing three sub-dimensions: learning, sharing and endorsing. Learning is defined in this thesis as the behaviour of seeking content, information, experiences, ideas and/or other resources about a brand from a brand and/or its other consumers on Twitter (Dessart et al., 2016). Within the Twitter platform, learning can manifest on Twitter through numerous behaviours. For example, it can be through reading or viewing brand-related tweets, such as comments, product reviews, videos, audio, pictures, images, links, etc, searching for brand-related information using Twitter and/or contacting a company's support or customer care service via Twitter. Sharing is defined as the behaviour of providing content, information, experience, ideas and/or other resources about a brand to a brand and/or its other consumers on Twitter (Dessart et al., 2016). Customers can spread WOM via tweets and/or retweets of a wide variety of posts about a brand (links, videos and texts). They also can share brand-related information via a hashtag (#). Endorsing behaviour includes the behaviour of showing support for, referring and/or recommending a specific brand on Twitter (Dessart et al., 2016). These behaviours can occur on Twitter atmosphere by using the 'like' mechanism, promoting the brand and / or tweeting (or retweeting) to defend a brand.

#### **4.2.2 Antecedents of Customer Engagement Behaviour on Twitter with the Brand**

This study investigates the antecedents of CEB on Twitter. The Uses and Gratification Theory (UGT) (Katz et al., 1973; Katz & Foulkes, 1962), which originated from communication and media literature, is used to understand customers' motivation to engage with specific types of media content (McQuail, 2010) (i.e., why and how individuals actively seek out and use specific media to satisfy specific needs). The UGT has been adapted to customer engagement studies to understand the drivers of engagement behaviour in the social media platform (e.g., De Vries & Carlson, 2014; Verhagen et al., 2015).

The UGT also provides a basis for understanding the antecedents to social media platform participation (e.g., Twitter). It holds that people use media channels to obtain certain benefits, and these perceived benefits drive media usage. The uses and gratification framework (Katz et al., 1973) identifies four broad types of perceived benefits that individuals can derive from media usage (in this study, from engaging with the brand in Twitter): (1) cognitive benefits that relate to information acquisition and improved understanding of the environment; (2) social integrative benefits that relate to strengthening consumers' ties with relevant others; (3) personal integrative benefits that relate to strengthening the credibility, status and confidence of the individual; and (4) hedonic or affective benefits, such as those that strengthen aesthetic or pleasurable experiences (Nambisan & Baron, 2009). Accordingly, various perceived forms of gratification and benefits exist via Twitter, and they have been validated as key antecedents of users' participation (e.g., Shahbaznezhad & Rashidirad 2021). As such, social integrative benefits manifest CEBs in the Twittersphere. These benefits could result in increased engagement in the Twitter platform (Nambisan & Baron, 2009; Shahbaznezhad & Rashidirad, 2021). Thus, the UGT framework provides some evidence that social relationship factors such as tie strength, homophily and trust may affect behavioural engagement in social media platforms, such as Twitter (Shahbaznezhad & Rashidirad, 2021). Consequently, the

model proposes three potential antecedents of CEB with brand within the twitter platform including tie strength, homophily and trust. The following explains these variables and related hypotheses subsequently developed.

#### **4.2.2.1 Tie Strength**

Tie strength refers to ‘the potency of the bond between members of a network’ (Mittal et al., 2008, p. 196). Social ties can be classified as either strong (e.g., family) or weak (e.g., colleagues) (Granovetter, 1973). According to the strength of weak ties theory (Granovetter, 1973), strong social ties among network members facilitate knowledge transfer and sharing. Therefore, tie strength can be used to explain dyadic interactions among people (Brown & Reingen, 1987).

Tie strength plays a central role on social media platforms (Gilbert & Karahalios, 2009). While both strong and weak ties significantly influence information dissemination (Goldenberg et al., 2001), perceived tie strength in online networks can significantly affect users’ sharing intentions (Ma et al., 2014), including brand information (Chu & Kim, 2011). Best and Krueger (2006) argued that the interaction level between people who have met on the internet positively relates to their social ties. Users share information, experiences and emotions, engage in repeated interactions and establish social norms (Best & Krueger, 2006). Therefore, social ties are considered a major motivation for engaging with social media platforms, such as Twitter (Sun et al., 2017).

Twitter allows customers to connect with both strong and weak ties, and they may develop relationships by engaging in brand-related communication and information (e.g., Chu & Kim, 2011). Phua et al. (2017) found that tie strength significantly moderated the relationship between frequent use of social media platforms (e.g., Twitter) to follow brands and brand community-related outcomes (i.e., brand community identification and membership intention).

In addition, both strong and weak ties may lead customers to engage in brand-related information via Twitter (Sook-Kwon et al., 2014). Therefore, CEB may be influenced by both strong and weak ties, and perceived tie strengths will facilitate customers' communication with one another regarding brand-related information, which will in turn encourage CEB. These discussions suggest that tie strength is an antecedent of CEB on Twitter, and the following hypothesis is suggested:

Hypothesis 1: Twitter users' perceived tie strength with their following list is positively related to their engagement behaviour with the brand in the Twittersphere.

#### **4.2.2.2 Homophily**

Homophily in social networks refers to the degree to which interacting individuals are similar in terms of their attributes, beliefs, values, experiences and lifestyles (Gilly et al., 1998; Rogers & Bhowmik, 1970). The theory of homophily posits that people tend to associate and interact with those who are similar to themselves regarding a variety of values (e.g., beliefs and attitudes) and characteristics (e.g., gender, race and age) (McPherson et al., 2001). Therefore, homophily is suggested to have powerful implications for people's behaviours and attitudes (Gilly et al., 1998; McPherson et al., 2001) and may be considered a key social relationship factor on social media platforms.

Prior studies have shown that homophily is ubiquitous in online social networks (Xiang et al., 2010). Thelwall (2008) found that homophily of specific attributes, such as age and attitude, were reasons for joining a social media platform. Wang et al. (2008) argued that homophily drives the entire persuasive process in online discussion groups. Homophily may also activate connections between social media users to commence the information exchange process (Khanam et al., 2022). Thus, individuals tend to socialise and interact with others who share similar characteristics because they are perceived as easier to communicate with and/or

as having more relevant input (Algesheimer et al., 2005; Khanam et al., 2022; Price & Feick, 1984).

Homophily may partly explain the effect of social relationships on CEB within the Twittersphere. Some studies have investigated the degree to which Twitter users engage with other users with similar beliefs and have found some degree of homophily (e.g., Halberstam & Knight, 2016; Kwak et al., 2010). Twitter enables customers to select their exposure to subjects of interest by following customers who are similar to themselves (Best & Krueger, 2006). Wohn and Na (2011) performed a content analysis of messages posted on Twitter and concluded that people use Twitter to selectively seek out others who have similar interests. Accordingly, Twitter may attract homophilic consumers, which increases the likelihood of those consumers' displaying CEBs with brands. Algesheimer et al. (2005) proposed the idea of engaging with a community of like-minded people. Thus, engagement likely occurs between Twitter users who have at least some common beliefs, values, experiences, interests and lifestyles, indicating that consumers with a higher level of perceived homophily may be likely to engage with one another via Twitter when making brand choices. Contact between similar people occurs at a higher rate than among those who are dissimilar (McPherson et al., 2001). Regarding Twitter, homophily means that customers with similar characteristics tend to form social relationships by following one another, which may also affect their CEBs. Given this discussion, homophily may be an antecedent of CEB on Twitter and the following hypothesis is suggested:

Hypothesis 2: Twitter users' perceived homophily with their following list is positively related to their engagement behaviour with the brand in the Twittersphere.

#### **4.2.2.3 Trust**

Trust, defined as 'a willingness to rely on an exchange partner in whom one has confidence' (Moorman et al., 1993, p. 82), is critical in social networks and communication

(Giffin, 1967). Previous studies have shown that trust may be transferred from one source to another (Stewart, 2003), such as from an organisation to its members, from an individual to another individual and between contexts (Hu et al., 2019; Ng, 2013). As such, trust in a Twitter user may be transferred to their activities (e.g., tweets) on that platform. According to trust transfer theory, trust transfer occurs when ‘the unknown target [is] being perceived as related to the source of the transferred trust’ (Stewart, 2003, p. 6). Thus, trust transfer is based on the perception of relatedness between one source and another. The relatedness between two sources occurs based on their similarity, closeness and common fate (Campbell, 1958). In the context of members of social media platforms, relatedness may also be influenced by an individual member’s behaviour (Wilder & Simon, 1998) and the type of interaction involved, such as initiating brand-related engagement (Lickel et al., 2000).

Trust is a social relationship factor that is central to participating on social media platforms (Chow & Chan, 2008; Pentina et al., 2013). In the social media context, trust between two parties enables them to build and maintain a relationship and may extend to other members, improving the overall trust within the network (e.g., Lien & Cao, 2014). It is thus considered critical to establish successful long-term relationships (Pennanen et al., 2007). Trust is considered an important factor for connections and interactions on social media platforms (Coppola et al., 2004; Warner-Søderholm et al., 2018) because successful interactions rely on the level of trust that friends have with one another (Sherchan et al., 2013; Warner-Søderholm et al., 2018). Additionally, the level of trust achieved plays a vital role in determining an individual’s decision to engage with other networks to exchange information or resources (Leonard & Onyx, 2003). Therefore, trust may be an antecedent of CEB in social media.

Trust is a significant predictor of willingness to engage in cooperative activities (Nahapiet & Ghoshal, 1998). A higher level of trust is also suggested to encourage more information sharing and use among members who communicate through digital networks

(Robert et al., 2008). Customers share and seek information about interests, products and services with friends and colleagues on social media platforms because an atmosphere of trust has been established (Ng, 2013; Rohm et al., 2013). On Twitter, trust is important because people trust their personal contacts and value their opinions when discussing products and/or brands (Oh et al., 2017), meaning that a higher degree of trust may influence the level of engagement that can be achieved (e.g., Chahal & Rani, 2017). Therefore, trust on Twitter may substantially affect the level of engagement behaviour that occurs with a brand. Given this evidence, trust is considered an antecedent of CEB on Twitter in this study, and the following hypothesis is suggested:

Hypothesis 3: Twitter users' perceived trust in their following list is positively related to their engagement behaviour with the brand in the Twittersphere.

#### **4.2.3 Moderating Effects: Susceptibility to Informational Influence**

Susceptibility to informational influence is suggested as an important customer trait that varies across individuals (Bearden et al., 1989; McGuire, 1968; Wang et al., 2012). It also plays an important role in customer decision-making (e.g., D'Rozario & Choudhury, 2000; Lord et al., 2001; Park & Lessig, 1977). Customers with high levels of susceptibility to informational influence conform to their social groups, either because they believe that the groups know more than they do or to achieve a sense of security (Chen et al., 2016). They may even change their attitudes and beliefs to those of the group, meaning that they see the group as an information source (Aral & Walker, 2012; Bickart & Schindler, 2001).

Indeed, customers with higher susceptibility to informational influence value the information they receive from friends, opinion leaders and brand users (Laroche et al., 2005). Furthermore, they may rely on their social groups to form certain behaviours (Aral & Walker,

2012). For example, Twitter users who are susceptible to informational influence are predicted to display a higher need to acquire information and guidance from knowledgeable others when making brand choices. Thus, they are likely to depend on their relationships with people on social media platforms when searching for information (e.g., Chu & Kim, 2011), making it reasonable to argue that customer susceptibility to informational influence will affect CEB on Twitter. In addition, it has been suggested that the investigation of the direct effects of customer traits, such as susceptibility to informational influence, may be obvious and that the investigation of their moderating effects is much more meaningful (e.g., Casaló et al., 2011; Dabholkar & Bagozzi, 2002; Wiertz et al., 2007). Therefore, this thesis suggests that susceptibility to informational influence has a moderating effect on the relationship between CEB and its antecedents on Twitter, and the following hypotheses are proposed:

Hypothesis 4: The relationship between perceived tie strength and CEB is stronger with higher susceptibility to informational influence in the Twittersphere.

Hypothesis 5: The relationship between perceived homophily and CEB is stronger with higher susceptibility to informational influence in the Twittersphere.

Hypothesis 6: The relationship between perceived trust and CEB is stronger with higher susceptibility to informational influence in the Twittersphere.

#### **4.2.4 Outcomes of Customer Engagement Behaviour on Twitter with the Brand**

The potential outcomes of CEB on social media platforms are associated with customer–brand relationships (Dessart, 2017; Hudson et al., 2016; Vivek et al., 2014). Previous studies have suggested that CEB is essential for building and maintaining strong customer–brand relationships (e.g., Dessart, 2017; Gambetti & Graffigna, 2010; Gummerus et al., 2012; Hudson et al., 2016; Kumar, 2020; van Doorn et al., 2010; Vivek et al., 2012; Vivek et al., 2014). Brand trust, brand commitment and brand loyalty have been suggested as significant

outcomes of engagement in the context of social media (e.g., Dessart, 2017; Gambetti & Graffigna, 2010; Hollebeek et al., 2014). CEB with a brand via Twitter should be a way to build trust, commitment and loyalty with the brand. Therefore, the model focuses on three potential direct outcomes of CEB on Twitter: brand trust, brand commitment and brand loyalty. The link between CEB and brand trust, brand commitment and brand loyalty can be drawn from the expanded domain of relationship marketing, which emphasises that engagement with the brand is aimed at attracting, building, maintaining and enhancing relationships with potential and existing customers (Morgan & Hunt, 1994; Vivek et al., 2012). The following provides justification for this relationship, and thereafter, related hypotheses are developed.

#### **4.2.4.1 Brand Trust and Brand Commitment**

According to the commitment-trust theory (Morgan & Hunt, 1994), commitment and trust are central to relationship marketing success. The theory builds on three principles: (a) preserving relationship investments by cooperating with exchange partners, (b) focusing on the long-term benefits of staying with existing partners and (c) viewing potentially high-risk actions as being prudent because of the belief that their partners will not act opportunistically. Therefore, when both trust and commitment exist, the outcome will be an efficient, productive and effective relationship. This theory helps explain the outcome of CEB on Twitter in multiple instances. Engagement behaviour is a two-way relationship in which different partners interact with one another and invest time, energy and effort to create value for all parties (Maslowska et al., 2016; van Doorn et al., 2010; Vivek et al., 2012). Therefore, brand trust and brand commitment are two highly related concepts in the studies of customer-brand relationship and are considered essential in developing, and maintaining successful relational exchanges (Chaudhuri & Holbrook, 2002; Dessart, 2017; Hollebeek, 2011b).

Social media platforms, such as Twitter, provide customers with a rich communication context for the brand (Jansen et al., 2009), and they allow customers to build and maintain their relationship with different elements of the brand (Habibi et al., 2014). The cooperative behaviours that arise can form CEB on Twitter between customers and/or a brand and may increase brand trust and commitment; therefore, they are conducive to relationship marketing success. In addition, CEB may reduce the risks that are associated with the brand (e.g., Dessart, 2017). In that sense, CEB on Twitter can be an avenue for building trust and commitment with a brand (Brodie et al., 2013; Claffey & Brady, 2014; Dessart, 2017). As such, the following hypotheses were developed:

Hypothesis 7: CEB with the brand are positively related to brand trust in the Twittersphere.

Hypothesis 8: CEB with the brand are positively related to brand commitment in the Twittersphere.

#### **4.2.4.2 Brand Loyalty**

Brand loyalty has been the focus of several customer engagement and marketing relationship studies (e.g., Bowden, 2009; Leckie et al., 2016; Maslowska et al., 2016), some of which have shown that stronger brand loyalty can be achieved by building and developing bonds and direct relationships with customers (Gustafsson et al., 2005; Leckie et al., 2016). Bowden (2009) also defined engagement as a process that drives loyalty. Thus, CEB with the brand is expected to lead to brand loyalty (Maslowska et al., 2016; van Doorn et al., 2010). When customers engage via Twitter to invest time, energy and effort into sharing, learning and/or endorsing behaviours with brands, they are more likely to become loyal to the brand (Hollebeek, 2011a). Therefore, engaged customers are more likely to develop strong beliefs, strengthen their affection and undertake repeat purchase behaviours towards the brands (Leckie

et al., 2016; Oliver, 1999; van Doorn et al., 2010). As such, the following hypothesis was developed:

Hypothesis 9: CEB with the brand are positively related to brand loyalty in the Twittersphere. Table 4-1 presents a summary of hypotheses

**Table 4-1**

*Summary of Hypotheses*

<b>Hypotheses</b>	<b>Posited relationship</b>
H1	Twitter users' perceived tie strength with their following list is positively related to their engagement behaviour with the brand in the Twittersphere.
H2	Twitter users' perceived homophily with their following list is positively related to their engagement behaviour with the brand in the Twittersphere.
H3	Twitter users' perceived trust in their following list is positively related to their engagement behaviour with the brand in the Twittersphere.
H4	The relationship between perceived tie strength and CEB is stronger with higher susceptibility to informational influence in the Twittersphere.
H5	The relationship between perceived homophily and CEB is stronger with higher susceptibility to informational influence in the Twittersphere.
H6	The relationship between perceived trust and CEB is stronger with higher susceptibility to informational influence in the Twittersphere.
H7	CEB with the brand are positively related to brand trust in the Twittersphere.
H8	CEB with the brand are positively related to brand commitment in the Twittersphere.
H9	CEB with the brand are positively related to brand loyalty in the Twittersphere.

### **4.3 Chapter Summary**

This chapter presented the study's conceptual framework to theoretically advance our understanding of CEB towards brands, which modelled CEB, including its potential

antecedents and outcomes on Twitter. It operationalised CEB as three dimensions: learning, endorsing and sharing. It also offered a range of antecedents and outcomes of CEB within Twitter, including tie strength, homophily and trust. The outcomes encompassed brand trust, brand commitment and behavioural loyalty. The model also presented susceptibility to informational influence as a moderating variable that impacts the relationship between CEB and its antecedents. The proposed model explained CEB on Twitter and the role of tie strength, homophily and trust in driving CEB, including its impact on customer–brand relationships. Further, the model explained the moderating role of informational influences on the link between the antecedents and CEB.

## **Chapter 5 Methodology**

### **5.1 Introduction**

In the previous chapter, the proposed conceptual framework and associated hypotheses were presented. This chapter describes both the research design and the methodology that were used in this study to address the research objectives. It begins with the research philosophy, followed by a description of the research approaches and strategies, the data collection method, the instrument development and all sampling strategies and procedures. A description of the data analysis technique and ethical considerations concludes this chapter.

### **5.2 Research Paradigm**

A paradigm refers to a researchers' beliefs regarding both the research design and the methods planned for conducting research and developing knowledge (Creswell, 2014; Denzin & Lincoln, 1998). Therefore, understanding a study's philosophical paradigm is critical because it affects both the research approach and the methods used (Collis & Hussey, 2013). Furthermore, adopting a paradigm is critical for justifying the use of the chosen methods and providing a rationale for the overall research approach.

Given the nature of the research objectives, a postpositivist paradigm will be adopted for this study. Both positivist and postpositivist scholars believe in objectivist ontology and critical realist epistemology. They subscribe to the belief that there is an external reality of which we can never achieve perfect knowledge, and they consider objectivity as an important aspect of the inquiry. Therefore, the objective truth and reality could be studied and understood independent of the perception of the researcher (Bryman & Bell, 2014). In addition, by studying peoples' thoughts and feelings, the researcher gains knowledge about the nature of truth and reality (Hunt, 1990).

Within this paradigm, the researcher acts as an outsider who reports objectively on the collected data. The researcher is mainly concerned with accuracy and proper collection techniques. The postpositivist view follows the direction of traditional research forms that justify the use of quantitative over qualitative research (Creswell, 2014), wherein numbers represent facts about reality. However, this view believes that the use of quantitative over qualitative research could produce knowledge about reality (Myers, 2013).

In postpositivist research, the study begins with a theory from which questions and hypotheses are developed by the researcher. Then, the researcher further develops existing knowledge in a particular field through hypotheses testing. Thus, the postpositivist view emphasises the testing of theories as ‘a means for establishing their success’ (Hunt, 1990, p. 11), and the theoretical constructs play a central role in this philosophical form of positivism. Theories that use constructs to present concepts like attitudes, engagement, intentions, customer behaviour, information search and brand loyalty ‘give us warrant for believing (to the extent such theories are successful) that these entities have a real existence’ and that the theories comprising these entities truly ‘say something’ about the world (Hunt, 1990, p. 11).

The purpose of this study was to predict results, test a theory and find the relationships between a set of variables (Crotty, 1998; Trochim, 2002). The post positivist paradigm is appropriate for this study considering its objective to investigate CEB with brands within the Twitter environment to predict and explain the behaviour of customers. Additionally, studying CEB in the nomological network of antecedences and outcomes and testing the relationships in the nomological network provide a theory that attempts to explain aspects of customer behaviour, such as engagement with brands through the use of Twitter. In this study, the researcher seeks to provide objective knowledge and avoid bias that could occur via the researcher and/or the research procedure and seeks insight into the customer engagement phenomenon within the Twitter environment. Therefore, the postpositivist paradigm is

appropriate and applicable to this research. This paradigm typically utilizes a quantitative methodology. The data gathering instruments that are associated with the postpositivist paradigm include questionnaires, observations, experiments and tests. Notably, several studies have supported the use of the critical realism research paradigm in marketing (e.g., see Hunt, 1990, 1992) and in network and relationship marketing (e.g., see Healy & Perry, 1998).

### **5.3 Research Approach**

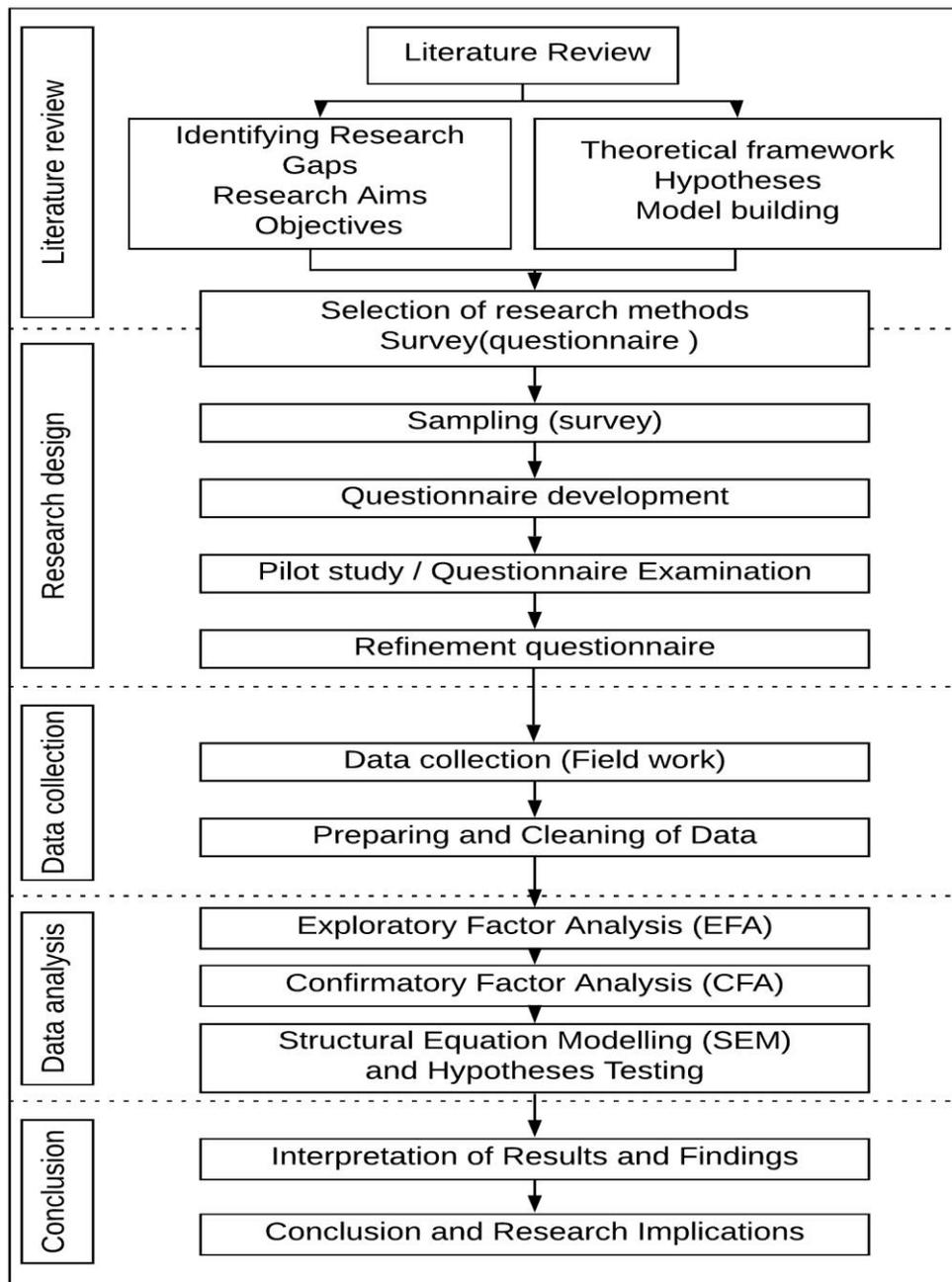
The two main research approaches for reasoning are deduction and induction. In the deductive model, the researcher develops a theory and hypotheses based on the existing knowledge of a phenomenon, followed by designing a research strategy to test the hypotheses and thus either confirm or reject them. Therefore, the deductive approach is associated with post positivism (Crowther & Lancaster, 2012; Myers, 2013) as well as generally associated with quantitative research (Collis & Hussey, 2013). By contrast, in the inductive model, the researcher explores a phenomenon to draw conclusions, followed by analysing the conclusions and developing a theory (Bryman & Bell, 2014; Saunders et al., 2012). Hence, the deductive model is used to test existing theories, and the inductive model develops theories from data analysis results (Babbie, 2015).

The selection of an appropriate research approach should be based on the nature of the research problem or issue and should support the achievement of the research aim and objectives (Collis & Hussey, 2013; Creswell & Creswell 2017). In this research, a theoretical framework and associated hypotheses were developed based on a review of current literature to facilitate testing that would either confirm or reject the framework and hypotheses. Thus, the current research adopted the deductive approach to test hypothesised relationships between CEB and its antecedents and outcomes. This research developed measurement instruments for the study variables to statistically assess the relationship between concepts and variables. Its

aim is to explain the correlations between concepts and variables via research questions. Figure 5-1 summarizes the research process of the current study.

**Figure 5-1**

*The Research Process Flow Chart*



## **5.4 Research Strategies**

A research strategy is a clear and systematic plan that leads a researcher to conduct a given study successfully and thus answer its questions (Bryman & Bell, 2014). When choosing a research strategy, a researcher should consider the research questions and objectives, the related knowledge and the availability of time and facilities. The selected research strategy should also be linked to the adopted research philosophy (Saunders et al., 2012). The main research strategies, as mentioned by Saunders et al. (2012), include experiment, survey, case study, action research, grounded theory, ethnography and archival research.

This study will adopt the survey strategy, which is commonly used in business and management research, because it enables the researcher to collect a significant amount of information from a large sample size within a short period of time in a cost-effective manner (Saunders et al., 2012). It is more likely to be used to answer who, what, where, how much and how many type questions (Saunders et al., 2012). Survey methods are usually associated with the deductive approach, which involves testing the hypotheses of a study to determine their validity (Bryman & Bell, 2014; Saunders et al., 2012). Furthermore, surveys are appropriate for studies that use the deductive approach to better understand the research problem (Collis & Hussey, 2013), making it an appropriate strategy for this study. A questionnaire will be the main data collection instrument. As defined by Creswell (2013), a questionnaire is a set of pre-determined questions that are aimed at collecting data to answer a study's main research question and supporting its objectives.

## **5.5 Data Collection Methods**

The questionnaire is one of the most widely used data collection techniques within the survey strategy (Saunders et al., 2012), which involves the administration of questionnaires to a sample of respondents who are selected from a population (Babbie, 2015). Questionnaires

are one of the most appropriate and common methods used to collect data from large populations (Babbie, 2015; Saunders et al., 2012), and they are appropriate for the investigation of concepts and testing theories/hypotheses to determine their validity (Bryman & Bell, 2014; Klassen & Jacobs, 2001; Saunders et al., 2012). They can be administered in two ways: self-administered questionnaires are completed by the respondents, and interviewer-administered questionnaires are completed by the interviewer. In this research, a self-administered online questionnaire was used because they are easy to administer, inexpensive and they provide opportunities to gather a wide range of data (Bryman, 2012).

Importantly, the design of a questionnaire can influence the collected data's quality and response rate (Collis & Hussey, 2013; Saunders et al., 2012). Babbie (2015) and Saunders et al. (2012) highlighted the importance of the questionnaire format; therefore, developing a questionnaire requires diligent care and attention. Therefore, a great care was given to the process of developing the questionnaire for this study as explained in the next section.

## **5.6 Questionnaire Development**

The design of a questionnaire requires a mix of science and art. The science includes determining what information to gather and selecting the measures to be used, while the art plays a role in the wording and sequence of questions as well as the overall layout. Therefore, this study followed a rigorous process to ensure that both aspects were captured. The questionnaire design process was guided by the nine-step framework of Churchill and Iacobucci (2005): (a) specifying what information will be sought, (b) determining the type of questionnaire and (c) the method of administration, determining the (d) content, (e) response, (f) wording and (g) sequence of each question, (h) determining the physical appearance of the questionnaire and (i) pre-testing. Developing the final questionnaire of this study involved working back and forth among the steps to ensure consistency of the instrument. A number of decisions were made previously regarding the development of the questionnaire, including

what information would be sought and from whom, and they were specified in previous chapters. The following sections detail the development of the questionnaire regarding the following: (a) design, (b) administration, (c) measurement selection (d) pre-testing and piloting and (e) refinement. The English and Arabic versions of the questionnaire presented in Appendix 1.

### **5.6.1 Questionnaire Design Process**

The following provides a discussion of the steps that were used in this research to design the questionnaire.

**Content.** Scales from prior research were used to measure the variables, with modifications to fit the context of this study. The scales are largely addressed, explained and justified in the measurement section. It was ensured that all questions were purposeful and precise and that they measured the aspects of the research. Because **the wording** of questions is critical (Malhotra & Birks, 2006), by following the guidance of Churchill and Iacobucci (2005), Bryman (2012) and Malhotra and Birks (2006), great effort was made to ensure that all wording was clear for all participants. To enhance the wording, different strategies were adopted. For example, ordinary words were used to match the vocabulary level of the respondents, terms were selected that are common within the Twittersphere and the use of jargon was avoided. Moreover, significant effort was made towards avoiding any questions that were leading, double-barrelled, ambiguous, too general, estimated and/or too long. In addition, clear instructions about how to respond to each question were provided to ensure appropriate selections (Bryman, 2012).

**Translation.** To ensure a valid and reliable translation from English into Arabic, careful wording was required. Importantly, translation equivalence must be ensured for both the questionnaire and the measures (Douglas & Craig, 2006). To achieve a high level of

translation equivalence, the questionnaire was translated using two approaches: the committee approach (Douglas & Craig, 2006; van de Vijver & Tanzer, 2004) and the back-translation technique (Brislin, 1970; McGorry, 2000). The committee approach utilises a group of people, often with different areas of expertise, to prepare a translation (van de Vijver & Tanzer, 2004). In this study, the questionnaire was first translated by the researcher, who is considered bilingual. The translated questionnaire was then submitted to a committee of bilingual translators and experts including an assistant professor (PhD in management), a PhD student (a Saudi student who is fluent in English) and a certified translator with nine years' experience in translating (Master's degree in translating and interpreting). The committee reviewed the translation to check for errors of meaning and provided feedback and comments. Accordingly, modifications to the translated version were made based on their feedback. Both iteration and looping procedures were used until the committee agreed on a final version (Craig & Douglas, 2006). The back-translation technique involved having the final translated version translated back to English. Lastly, the translation's accuracy was evaluated by comparing the original and back-translated versions. A certified translation of the questionnaire is in Appendix 2.

**Sequence.** The questionnaire started with an introductory statement to familiarise the participants with the research, to encourage them to participate in the study and to seek their assistance with distributing the questionnaire to their Twitter followers. Then, the screening questions, including whether they were Saudi citizens and 18 years of age or older, were reviewed to determine eligibility. The participants were given general instructions to prepare to start the questionnaire, which progressed through four main sections. The general rule is to proceed from simple to more complex and from general to more specific. The logic transition between each section was also explained and ensured. Section one started with simple and easy questions about the participants' general use of Twitter. Section two covered the social

relationships that the participants have with the Twitter users whom they follow, including their perceptions of those relationships.

Section three is devoted to gathering information about the participants' Twitter interactions with their nominated brand. The section opens by defining the term 'brand' regarding the Twittersphere and determining whether participants meet the criteria of either following (i.e., hitting 'follow', which ensures that the brand's tweets are in the participant's Twitter feed) or having interest in (i.e., being curious about or a customer of) a brand with an official Twitter account. The participants had to name one brand that they follow and/or one that they are interested in on Twitter to proceed with the survey, which ensured their suitability to offer needed data.

Questions 19, 20 and 21 (screener questions) were designed by using the logic feature in the Qualtrics survey software to help identify the participants' Twitter interactions with their nominated brand. Question 19 asks if they follow at least one official brand account on Twitter. If the participant chooses YES, then question 20 ('Please write the name of the brand that you follow on Twitter') is displayed. If the participant chooses NO, then question 21 ('Even if you do not follow a brand on Twitter, please name one brand that you are interested in on Twitter') is displayed.

Thereafter, clear instructions are given for answering all the questions that follow to ensure that they reference the brand that they follow and/or are interested in on Twitter. Accordingly, the brand they name becomes the focus of their responses to the survey items, which allows the study to create customer-brand relationships on Twitter. Additionally, to ensure that participants do not lose this focus, clear instructions are at the top of the sections that follow to remind them that all answers should reference the brand that they follow and/or

are interested in on Twitter. This section is then expanded via questions about the participants' behaviours in relation to their named brand.

Section four was related to their relationship with the brand and their reflections on how they felt about the brand. This was followed with questions about decision-making and purchase behaviours. The questionnaire concluded with demographic questions, as recommended by Lietz (2010).

**Forms of response.** Multiple-choice and closed-ended questions, which are considered most appropriate for self-administered questionnaires (Bryman, 2012), were used. The design also utilised both seven-point Likert scales and seven-point semantic differential scales. Generally, the choice of a particular scale technique for each question was based on theoretical and practical considerations. The objective was to choose a scale that would yield the highest level of information feasible (Malhotra & Birks, 2006). Moreover, using different types of response techniques can maintain the respondents' attention and thus reduce the risk of automated responses, which are associated with using a single technique. Seven-point scales were used because a minimum of seven categories is suggested to ensure scale validity and reliability (Foddy, 1994). The use of an odd number also allows for a neutral option in the middle of the scale. Providing this option is preferable because the participants may be neutral on the issue, and a neutral option will not force them to take a stance. In addition, a balanced scale was used; having an equal number of favourable and unfavourable categories allows the collection of objective data (Malhotra & Birks, 2006).

**Physical appearance.** The look of a questionnaire has a significant effect on participants' cooperation (Churchill & Iacobucci, 2005). Therefore, the layout of the questionnaire was offered in a user-friendly format, which made it relatively easy to complete. Generally, to avoid unnecessarily confusing layouts, different issues were considered,

including selecting a clear font size, ensuring a reasonable questionnaire length and selecting an appropriate scale form and configurations. In addition, the questionnaire was designed for an optimal viewing experience across desktops, tablets and mobiles.

**Re-examine and revision.** This strategy was applied to develop the final questionnaire because usually the first draft of questionnaire does not result in a useful version (Churchill & Iacobucci 2005). Therefore, many rounds of reviews and re-examinations were conducted to achieve the final version. The reviews involved the researcher, the supervisors of this thesis, academics, professionals, colleagues, friends and family. These rounds allowed the identification of major issues and provided opportunities to develop the questionnaire (examples of modifications are provided in the questionnaire refinement section). Thereafter, a pre-test, the most important step in questionnaire development (Churchill & Iacobucci 2005), was conducted and are detailed later in this section.

### **5.6.2 Administration of Questionnaire**

The online questionnaire was generated using the Qualtrics software, which was chosen because of its high design flexibility and many useful functions (e.g., validation options, question types, format and layout, skip logics, custom validation, etc.). It also allows the administration of surveys across a wide range of devices, including desktops, tablets and mobiles, in a user-friendly format. A mobile-friendly questionnaire was provided for participants because many people prefer to respond immediately through their mobile devices (see GMI, 2018). This ensured that respondents were reached in a convenient way. In addition, the link to the survey was distributed to participants via Twitter to ensure that only people who use Twitter regularly were approached.

**Response rate.** Achieving a sufficient response rate is a major concern for a self-administered online questionnaire (Ilieva et al., 2002). Several strategies have been suggested to increase the response rates to online surveys (e.g., De Vaus, 2002). In this research, different strategies were employed. For example, the design of a questionnaire plays a critical role in encouraging participants to complete it (Deutskens et al., 2004; Ilieva et al., 2002); therefore, attention was given to this aspect, as discussed in the previous section. The main aim was to keep the questionnaires as clear, easy, simple, professional, interesting, friendly and on topic as possible to keep participants motivated to complete them.

**Targeting Twitter influencers.** Another important strategy was to identify and contact a selection of Twitter users who had more than 100 followers. The initial contacts were asked to complete the questionnaire. They were also asked to refer their followers and to distribute the online questionnaire to them. The contact was professional and included information about the survey topic and its public value. It was important to eliminate any uneasy feelings that people may have had about communicating over the Internet. Therefore, the researcher's Twitter account was used to communicate openly, although assurances of confidentiality and anonymity regarding the survey were also provided.

**Targeting trends and brands.** Saudi Twitter trends and brands were also used to reach potential participants and to increase responses because the Saudi Twittersphere is an active communication platform. Saudi Twitter trends are particularly important to its users, who employ hashtags to discuss brands and exchange thoughts. Therefore, Saudi Twitter trending hashtags were targeted to increase the response rate. In addition, a list of brand hashtags was prepared to reach potential participants.

**Timing.** Another response strategy was sending invitations at appropriate times (Paraschiv, 2013). Twitter users seem to start and end their day on Twitter (Adespresso, 2018).

However, Adnan et al. (2014) provided some evidence that there is constant Twitter activity during the entire day in Saudi Arabia, with two peaks: 1 pm and 10 pm. Therefore, to reach the most potential participants, invitation tweets were posted during three different timeframes: (a) 7 am–9 am; (b) 11:59 am–1 pm; and (C) 7 pm–11:59 pm on every day of the week.

**Following up.** Follow-ups have also been suggested as the most powerful strategy for increasing response rates to online surveys (Deutskens et al., 2004). A follow-up was scheduled for non-responders within one week of the invitation. This was presented with great care to avoid the appearance of spam, which could irritate and annoy potential respondents.

**Incentives.** The researcher considered offering an incentive to participants to increase the response rate, given the relatively long length of the questionnaire. Although incentives have been proven to improve response rates (Görizt, 2006), they can unduly influence and/or pressure research participants or/and bias the study population toward participants with lower socioeconomic status (Macklin, 1981; McNeill, 1997; Resnik, 2015). Therefore, this research avoided providing incentives to avoid bias and any persuasion or pressure regarding participation. This also eliminated the possibility of participants answering questions automatically with meaningless answers to gain the incentives.

**Length.** The length of the questionnaire was also considered. Admittedly, due to the nature of the study, the questionnaire was not considered short. It is believed by some that the length of a questionnaire may affect response rates; however, there is little support for this (Rolstad et al., 2011). Some studies have even indicated that the length of a questionnaire does not necessarily affect the response rate (e.g., Coast et al., 2006; Mond et al., 2004). Therefore, the appropriate questionnaire length depends upon the quality of the content from the participants' point of view rather than the length *per se* (Rolstad et al., 2011). Thus, this study

focused on designing meaningful and interesting content for the participants, which reduced concerns about the questionnaire's length.

## **5.7 Measurement Development**

It is recommended that researchers use existing, validated measures in their studies (Bryman & Bell, 2014); therefore, scales from prior research were used to measure the constructs, and they were modified to fit the context of this study. The specific measures include tie strength, homophily, trust, informational influence, brand trust, brand commitment and brand loyalty.

### **5.7.1 Measures of Customer Engagement Behaviour Antecedents**

**Tie strength.** The measures of tie strength were adapted from Brown and Reingen, (1987), Chu and Kim (2011), Norman and Russell (2006) and Reingen and Kernan (1986). Tie strength was measured through three items: types of social relationships, frequency of communication and the importance and closeness attached to the social relation (Brown & Reingen, 1987; Chu & Kim, 2011; Norman & Russell, 2006; Reingen & Kernan, 1986). Respondents were asked to identify the type of social relation with their contacts on Twitter in ten categories: immediate family members, relatives not in my immediate family, close friends, acquaintances, classmates, neighbours, work or business colleagues, public figures, celebrities and others (specify) (Brown & Reingen, 1987; Chu & Kim, 2011). Data on frequency of communication were obtained using a seven-point semantic-differential scale, with anchors of 'never' and 'all the time' (Brown & Reingen, 1987; Chu & Kim, 2011). Importance was also measured on a seven-point semantic-differential scale, with anchors of 'not at all important' and 'very important' (Brown & Reingen, 1987; Chu & Kim, 2011). Lastly, closeness was measured on a seven-point semantic-differential scale, with anchors of 'not at all close' and

‘very close’ (Brown & Reingen, 1987; Chu & Kim, 2011). Table 5-1 shows the three items that were used to measure perceived tie strength.

**Table 5-1**

*Multi-item Scale for Tie Strength*

<b>Constructs</b>	<b>Original Scales</b> (Brown & Reingen, 1987; Chu & Kim, 2011; Norman & Russell, 2006; Reingen & Kernan, 1986).	<b>Adapted Scales</b>
Tie Strength	<ol style="list-style-type: none"> <li>1. Approximately how frequently do you communicate with the contacts on your ‘friends’</li> <li>2. Overall, how important do you feel about the contacts on your ‘friends’ list on this SNS?</li> <li>3. Overall, how close do you feel to the contacts on your ‘friends’ list on this SNS?</li> </ol>	<ol style="list-style-type: none"> <li>1. How frequently you communicate via direct messages, replies, or mentions etc with the Twitter users you follow?</li> <li>2. How important the Twitter users you follow are to you?</li> <li>3. How close you feel to the Twitter users you follow</li> </ol>

**Homophily.** The measures of perceived homophily were adapted from McCroskey et al. (1975) to assess the perceived homophily of contacts on Twitter. They suggested four relatively uncorrelated dimensions of perceived homophily: attitude, morality, background and appearance. However, only attitude measures were used here because this study seeks to understand attitudes—which have been recognised as critical to understanding customer behaviour (Chu & Kim, 2011)—of customers on Twitter. McCroskey et al.’s (1975) scale has been widely used in previous studies and has been found to be both valid and reliable in different contexts. For example, Chu and Kim (2011) used the scale in the context of engagement in electronic word-of-mouth (eWOM) on social media context and showed an appropriate level of reliability, with a Cronbach’s Alpha of 0.85. In that study, the homophily

construct was measured via a seven-point semantic-differential scale. Table 5-2 shows the four items that were adapted to measure perceived homophily in the context of twitter usage.

**Table 5-2**

*Multi-item Scale for Homophily*

<b>Constructs</b>	<b>Original Scales</b> (McCroskey et al., 1975)	<b>Adapted Scales</b>
Homophily	1. Don't think like me/Think like me 2. Don't behave like me/Behave like me 3. Similar to me/Different from me 4. Unlike me/Like me	For each of the following items, click on the button that best describes what you think about the Twitter users you follow on Twitter:  1. Don't think like me/Think like me 2. Don't behave like me/Behave like me 3. Are similar to me/Are different from me 4. Are unlike me/Are like me

**Trust.** The measures of trust that were used in this study were adapted from Chu and Kim (2011). Their scale was developed and modified from Lin's (2006), Mortenson's (2009) and Smith et al.'s (2005) work in the interpersonal trust and social trust literature. The scale was designed to measure trust within social media and showed an appropriate level of reliability, with a Cronbach's Alpha of 0.93. Therefore, this study measured trust through four items (see Table 5-3) to reflect respondents' perceived trust in Twitter contacts. Responses on the trust scale were correlated to a seven-point Likert scale, with anchors of 'very strongly disagree' and 'very strongly agree'.

**Table 5-3***Multi-item Scale for Trust*

<b>Constructs</b>	<b>Original Scales</b>  (Chu & Kim, 2011)	<b>Adapted Scales</b>
Trust	Generally speaking, 1. I trust most contacts on my ‘friends’ list on the SNS. 2. I feel confident about having discussions with the contacts on my ‘friends’ list on the SNS. 3. The contacts on my ‘friends’ list on the social networking site will do everything within their capacity to help others. 4. My contacts on my ‘friends’ list on the social networking site offer honest opinions.	Generally speaking, 1. I trust most of the Twitter users I follow. 2. I feel confident about having discussions with the Twitter users I follow. 3. The Twitter users I follow will do everything within their capacity to help others. 4. The Twitter users I follow offer honest opinions.

**5.7.2 Measures of Susceptibility to Informational Influence**

**Susceptibility to informational influence.** Susceptibility to informational influence was measured by adapting four items (see Table 5-4) that were developed by Bearden et al. (1989). The scale was used by Chu and Kim (2011) to examine informational influence within a social media context and showed an appropriate level of reliability, with a Cronbach’s Alpha of 0.93, with a Cronbach’s Alpha of 0.84. Responses on the scale were made on a seven-point Likert scale, with anchors of ‘very strongly disagree’ and ‘very strongly agree’.

**Table 5-4***Multi-item Scale for Susceptibility to Informational Influence*

<b>Constructs</b>	<b>Original Scales</b> (Bearden et al., 1989)	<b>Adapted Scales</b>
Susceptibility to Informational Influence	<ol style="list-style-type: none"> <li>1. To make sure I buy the right product or brand. I often observe what others are buying and using.</li> <li>2. If I have little experience with a product. I often ask my friends about the product.</li> <li>3. I often consult other people to help choose the best alternative available from a product class.</li> <li>4. I frequently gather information from friends or family about a product before I buy.</li> </ol>	<ol style="list-style-type: none"> <li>1. To ensure that I buy the right product or service, I observe what others are buying and using.</li> <li>2. If I have little experience with a product or service, I ask my friends about the product or service.</li> <li>3. I consult with other people to help choose the best alternative available from similar products and services</li> <li>4. I gather information from friends or family about a product or service before I buy it.</li> </ol>

### 5.7.3 Measures of Customer Engagement Behaviour

The construct of CEB was operationalised using Dessart et al.'s (2016) conceptualisation, including learning, sharing and endorsing. For the purpose of this study, the items that were used to measure the CEB construct were derived from Dessart et al. (2016) as well as other CEB literature (e.g., Schivinski et al., 2016).

**Learning.** Learning was measured using Dessart et al.'s (2016) scale as well as two items from Schivinski et al. (2016). As a result, five items (see Table 5-5) and a seven-point Likert scale, with anchors of 'Very strongly disagree' and 'Very strongly agree', were used to assess learning on Twitter. Dessart et al. (2016) developed a scale to measure the learning dimension with the following three statements: 'I ask (Engagement Focus) questions', 'I seek

ideas or information from (Engagement Focus)’ and ‘I seek help from (Engagement Focus). Their scale has high reliability (Cronbach’s Alpha = 0.90), which exceeds the recommended threshold of 0.70 (Hair et al., 2014). It also has convergent validity (Variance Extracted = 0.72), which is greater than 0.50, indicating that the validity of both the construct and the individual variables is high (Dillon & Goldstein, 1984). In addition, Schivinski et al. (2016) suggested that reading and watching brand-related content includes both firm-created and user-generated media among the most frequent types of online brand-related consumer activities. Therefore, this study considered reading and watching brand-related content engagement behaviours that occur on social media platforms. To reflect these behaviours in the measurement of the learning dimension, two items were borrowed from Schivinski et al. (2016): ‘I read posts related to brand x on social media’, and ‘I look at pictures/graphs related to brand x on social media’.

**Table 5-5**

*Multi-item Scale for Learning*

<b>Constructs</b>	<b>Original Scales</b> (Dessart et al., 2016; Schivinski et al., 2016)	<b>Adapted Scales</b>
Learning	1. I ask (EF) questions 2. I seek ideas or information from (EF) 3. I seek help from (Engagement Focus) 4. I read posts related to brands x on social media. 5. I watch pictures/graphs related to brands x on social media.	1. I ask questions on Twitter about the brand. 2. I seek ideas or information from Twitter users about the brand. 3. I seek help from Twitter users about the brand. 4. I read posts related to the brand on Twitter. 5. I look at pictures/graphs/video related to the brand on Twitter.

**Sharing.** Sharing also was measured using Dessart et al.'s (2016) scale, two items from Schivinski et al. (2016) and one item was developed to measure retweeting behaviour. As a result, six items (see Table 5-6) and a seven-point Likert scale, with the anchors 'very strongly disagree' and 'very strongly agree', were used to assess sharing on Twitter. Dessart et al. (2015) developed a scale to measure the sharing dimension with the following three statements: 'I share my ideas with (Engagement Focus)', 'I share interesting content with (Engagement Focus)' and 'I help (Engagement Focus)'. This scale also evidenced high reliability and validity, with a Cronbach's Alpha of 0.94 and an extracted variance of 0.83, respectively.

This study considers commenting an important engagement behaviour. Therefore, the item 'I comment on posts related to brand x' was adopted from Schivinski et al. (2016) to capture this behaviour on Twitter. This study also considers creating content in the form of texts, images, links and/or videos the highest level of CEB with the brand on social media platforms (Schivinski et al., 2016); therefore, the item 'I initiate posts related to brand x on social networking sites' was adopted from Schivinski et al. (2016). In addition, retweeting has been considered as a powerful sharing behaviour (Boehmer & Tandoc, 2015; Shi et al., 2014), and demonstrates CEB with the brand (Kim et al., 2014). Therefore, retweeting is critical for measuring CEB with the brand on Twitter (Soboleva et al., 2017). To reflect this behaviour in the measurement of the sharing dimension, this item was developed 'I retweet posts related to the brand on Twitter'.

**Table 5-6***Multi-item Scale for Sharing*

<b>Constructs</b>	<b>Original Scales</b> (Dessart et al., 2016; Schivinski et al., 2016)	<b>Adapted Scales</b>
Sharing	1- I share my ideas with (EF) 2- I share interesting content with (EF) 3- I help (Engagement Focus) 4- I comment on posts related to brand x 5- I initiate post related to brand x on social network sites	1. I share my ideas about the brand on Twitter. 2. I share interesting content about the brand on Twitter. 3. I help others about the brand on Twitter. 4. I comment on posts related to the brand on Twitter. 5. I initiate posts related to the brand on Twitter. 6. I retweet posts related to the brand on Twitter

**Endorsing.** Endorsing was also measured using Dessart et al.'s (2016) scale as well as one item from Schivinski et al. (2016). Four items (see Table 5-7) were developed by Dessart et al. (2016) to capture endorsing behaviour within the social media context. Their scale evidenced high reliability and validity, with a Cronbach's Alpha of 0.92 and an extracted variance of 0.74, respectively.

In addition, this study considered the 'like' mechanism an important customer engagement behaviour (Gummerus et al., 2012; Schivinski et al., 2016). Therefore, the item 'I like posts related to brand x' was adopted from Schivinski et al. (2016).

**Table 5-7***Multi-Item Scale for Endorsing*

<b>Constructs</b>	<b>Original Scales</b> (Dessart et al., 2016; Schivinski et al. 2016)	<b>Adapted Scales</b>
Endorsing	1- I promote (EF) 2- I try to get other interested in (EF) 3- I actively defend (EF) from its critics 4- I say positive things about (EF) to other people 5- I like posts related to brand x	1. I promote the brand on Twitter. 2. I try to get others interested in the brand on Twitter. 3. I actively defend the brand from its critics on Twitter. 4. I say positive things about the brand to other people on Twitter. 5. I 'like' posts related to brands on Twitter.

**5.7.4 Measures of Customer Engagement Behaviour Outcomes**

**Brand trust.** The measures of brand trust, which were adapted from Chaudhuri and Holbrook (2001), involve examining beliefs about reliability, safety and honesty as important facets of trust that people incorporate into their operationalisation of trust. The scale has good reliability (Cronbach's Alpha = 0.81) and has thus been widely used in previous studies (e.g., Dessart, 2017). Brand trust was measured using a seven-point Likert scale, with ratings of 'very strongly disagree' to 'very strongly agree'. The four statements in Table 5-8 were used to measure the brand trust construct.

**Table 5-8***Multi-item Scale for Brand Trust*

<b>Construct</b>	<b>Original Scales</b> (Chaudhuri & Holbrook, 2001)	<b>adopted Scales</b>
Brand Trust	1. I trust this brand 2. I rely on this brand 3. This is an honest brand 4. This brand is safe	1. I trust this brand 2. I rely on this brand 3. This is an honest brand 4. This brand is safe

**Brand commitment.** The measures of brand commitment were adapted from Dessart (2017). The scale achieved high reliability, with a Cronbach's Alpha value of 0.90. The responses on the scale were made on a seven-point Likert scale, with anchors of 'very strongly disagree' and 'very strongly agree'. Table 5-9 shows the three items that were used to measure brand commitment.

**Table 5-9***Multi-item Scale for Brand Commitment*

<b>Construct</b>	<b>Original Scales</b> (El-Manstrly & Harrison, 2013)	<b>adapted Scales</b>
Brand Commitment	1. I have grown to like this brand more than others offering the same product/service 2. I like the product/services offered by this brand 3. To me, this brand is the one whose product/services I enjoy using most	1. I have grown to like this brand more than others offering the same product/service 2. I like the products/services offered by this brand 3. This brand is the one whose products/services I enjoy using most

**Brand loyalty.** The measurement of brand loyalty, which was adapted from Zhang et al. (2016), is composed of four items (see Table 5-10). This scale also evidenced an appropriate

level of reliability, with a Cronbach’s Alpha of 0.96. The responses on the scale were made on a seven-point Likert scale, with anchors of ‘very strongly disagree’ and ‘very strongly agree’.

**Table 5-10**

*Multi-item Scale for Brand Loyalty*

<b>Construct</b>	<b>Original Scales</b> (Zhang, Benyoucef & Zhao, 2016)	<b>Adopted Scales</b>
Brand Loyalty	1. I will buy products of the brand next time 2. I intend to keep purchasing products from the brand 3. I will recommend the brand to others	1. I will buy products of the brand next time 2. I intend to keep purchasing products from the brand 3. I will recommend the brand to others

### 5.8 Pre-Test and Pilot

Pre-test and pilot studies were conducted for the developed questionnaire to determine the questions’ validity and reliability (Bryman & Bell, 2014; Saunders et al., 2012). Testing the questionnaire ensured the clarity of the instructions, questions, readability and layout as well as assisted in identifying confusing questions. The pilot test also aimed to verify both the reliability and the validity to facilitate an initial assessment of internal consistency via Cronbach’s alpha (Netemeyer et al., 2003).

The questionnaire was first pre-tested by a group of experts to evaluate the developed scales. The group members were selected based on their expertise in marketing, statistics, survey design and linguistics (Diamantopoulos et al., 1994). Two marketing experts, two statisticians, one researcher, two PhD students and one Twitter user (brand follower) evaluated the questionnaire and offered written and verbal feedback to the researcher. This group was asked to evaluate the questionnaire, provide feedback on the clarity of the instructions and

questions and comment on the questionnaire’s readability and flow. At this stage, several issues regarding the clarity of the instructions and questions, the readability and layout and the appropriateness of the measurement scales were identified. As a result, several modifications were made prior to distributing the questionnaire, including the following:

1. Changing the question order.
2. Rewording some items.
3. Fixing interval measurements for some questions.
4. Using another measurement scale for the brand loyalty construct.

The pre-test was followed by a pilot study on a small number of participants. A minimum of 10 participants is suggested when piloting a survey (Hill 1998; Johanson & Brooks, 2010). The pilot testing was done during the peak time of COVID-19 pandemic, which made it difficult to reach more than 18 participants for the pilot study. Thereafter, a simple statistical analysis for the collected data from the 18 participants was conducted. The analysis revealed that all items achieved an acceptable level of Cronbach’s Alpha. Table 5.11 shows the Cronbach’s Alpha for the items in the pilot testing stage.

**Table 5.11**

*The Cronbach’s Alpha Test for the Items in the Pilot Testing Stage.*

<b>Scale</b>	<b>Number of items</b>	<b>Cronbach’s Alpha</b>
Homophily	4	0.9
Tie Strength	3	0.6
Trust	4	0.8
Informational Influence	4	0.9
CEB	16	0.9
Brand Commitment	3	0.7
Brand Trust	4	0.9
Brand Loyalty	3	0.9

## 5.9 Sampling Strategy

A sample, as defined by Field (2005), is ‘a smaller collection of units from a population, which is used to determine truths about that population’. The full set of units from which a sample is selected is called a population (Bryman & Bell, 2014; Saunders et al., 2012). This study’s population will comprise Saudi Twitter users who either following or at least interesting in a brand on Twitter. A snowball sampling method were used to identify the study respondents. Snowball sampling gives a researcher the opportunity to select a sample purposively and to reach members of the population who may be difficult to identify (Saunders et al., 2012). Snowball sampling is an appropriate method in this study because no complete list or other obvious source for locating Saudi Twitter who following or at least interesting in a brand on Twitter were available. Snowball sampling will also allow the researcher to collect sufficient data over a short period of time. This sampling technique can, therefore, be considered suitable for this type of study, and it has been applied in several similar studies (see, e.g., Almalki, 2016; Browne, 2005; Dessart et al., 2016; Read et al., 2019).

The online questionnaires were distributed via Twitter, using Qualtrics survey software, to Saudis who use it. The procedure included the following steps:

1. The criteria was developed to reflect the purpose of the study and guide the choice of an informative sample (Bryman, 2012). Participation was screened based on the following key criteria: Saudi consumers with Twitter usage who are either following or at least interested in one brand on Twitter.
2. Based on the above criteria, a selection of Twitter users was identified and contacted directly by the researcher through Twitter. The initial contacts were then asked to complete the questionnaire and to refer and distribute the online questionnaire to their followers who are either following or at least interesting in a brand on Twitter.

## 5.10 Sample Size

Sample size is an important consideration in structural equation modelling (SEM) analysis, which is utilized in this study, because SEM is more sensitive to sample size than other multivariate techniques (Hair et al., 2010). Determining the sample size requirements for SEM is a challenge, and different considerations affect the required sample size, including (a) the multivariate normality of data, (b) the estimation technique, (c) the model complexity, (d) the amount of missing data and (e) the average error variance among the reflective indicators (Hair et al., 2010). However, various rules-of-thumb have been suggested, including (a) a minimum sample size of 200 for any SEM (Kline, 2015; MacCallum et al., 1996; Hair et al., 2010), (b) 5 or 10 observations per estimated parameter (Bentler & Chou, 1987; Bollen, 1989; Hair et al., 2010; Kline, 2015) and (c) 10 cases per variable (Nunnally, 1978).

Notably, Jackson (2003) provided empirical support for the number of observations per estimated parameter (N:q) rule. Further, Kline (2015) found that the N:q rule is a useful technique because it considers the relation between sample size and model complexity. The N:q rule therefore seems appropriate for determining the required sample size for this study. Thus, 5:1 (5 observations per 1 estimated parameter) served as a basis for determining the required number of participants. Using the number of observations per estimated parameter (N:q) rule, the estimated parameters were determined to be approximately 41 in the study model. Therefore, a sample size of at least 205 participants is required to test the model of this study. In addition, while Hair et al. (2014) suggested 200 cases as the recommended minimum for SEM, MacCallum et al. (1996) encouraged researchers to use larger sample sizes when testing more complex models. However, as the sample size increases (> 400), the method becomes more sensitive, which may lead to poor fit (Hair et al., 2014). As a result, a sample size in the range of 100–400 is considered as an appropriate number for the current study (Hair

et al., 2014). Therefore, a sample of 400 cases was deemed sufficient for an SEM analysis of this study (Weston & Gore 2006; Hair et al., 2014; Kline, 2015).

### **5.11 Sample Preparation**

Hair et al. (2014) stated that data preparation and examination are a ‘time-consuming, but necessary, initial step’ in the analysis process (p. 31). The objective of the data examination and preparation tasks is to ensure high data integrity. In this study, cleaning and preparation of the data consisted of the following steps: (a) checking for missing data or incomplete responses; (b) removing ineligible participants; (c) filtering irrelevant responses; (d) assessing response validity; (e) checking for normality; and (f) assessing for outliers (Bryman & Bell, 2015; Hair et al., 2010).

**Checking for missing data or incompetent responses.** Missing data and/or incomplete responses can be problematic when conducting an analysis (Hair et al., 2014). A benefit of using the online Qualtrics survey software is that it allows ‘force response validation’, in which participants cannot proceed to the next section in the questionnaire without answering all questions in the current section. This feature prevents missing data issues. However, incomplete responses can also cause missing data. Therefore, missing data and incomplete responses must be treated. Listwise deletion, which is the most frequently used method for handling missing data, was therefore used (Kang, 2013). The primary advantage of listwise deletion is that it allows for all analyses to be conducted on the same number of cases (Kline, 1998).

**Removing ineligible participants.** This step included removing participants who were not eligible to complete the questionnaire. To achieve this, screening questions were added. The screener questions included (a) whether participants were Saudi citizens and 18 years of

age or older; (b) whether participants have a Twitter account and; (c) whether participants follow or are interested in a brand on Twitter.

**Filtering irrelevant responses.** This step ensures that data are free of irrelevant information and involves selecting participants with relevance to the purpose of the study. In this study, participants had to be Saudi customers with Twitter usage who were following and/or interested in one brand on Twitter. Responses were screened based on these criteria, and irrelevant cases were removed from the sample. The following screening questions helped filter the sample: (a) Do you have a Twitter account? (b) Do you follow at least one official brand account on Twitter? If YES, please write the brand that you follow on Twitter (Write only one Brand) If NO, even though if you do not follow a brand on Twittersphere, please think of one brand that you are interested in on Twitter. Write the brand that you are interested in (Write only one Brand).

**Assessing response validity.** This step involves checking for behaviours that may indicate that a participant did not seriously consider their survey responses, such as by either speeding through the survey (speeders) or choosing the same answer throughout the survey (straight liners). These behaviours indicate that participants are neither reading the questions carefully nor answering them thoughtfully, which might affect the analysis. These types of responses were detected and deleted.

**Checking for normality.** Data screening also included assessing normality. The univariate normality for each item was assessed via the following tools: (a) the two most common normality tests (Shapiro–Wilk and Kolmogorov–Smirnov), (b) the values of skewness and kurtosis and (c) the Q-Q plots and histograms' shapes (Hair et al., 2010; Pallant, 2013). The dataset was also tested for multivariate normality using SPSS AMOS. Mardia's coefficient of multivariate kurtosis was examined for multivariate normality, with normalised

coefficients greater than three reflecting non-normality (Mardia, 1970, 1974). However, the effect of normality is diminished when the sample size exceeds 200 cases (Hair et al., 2010), which occurred in this study (N = 400).

**Assessing for outliers.** Outliers, which are observations with a unique combination of characteristics identifiable as distinctly different from the other observations, were examined with the use of Mahalanobis distances, which indicate the number of standard deviations that an observation is from the mean of a distribution. The distances were calculated using SPSS, and the calculated values were compared against the critical value of chi-square ( $\chi^2$ ) distribution to identify outliers. If the Mahalanobis distance of a case is larger than the critical value, then it is identified as an outlier (Tabachnick & Fidell, 2013).

## **5.12 Structural Equation Modelling**

Structural equation modelling (SEM) was used to confirm the theory and the proposed hypotheses of the study. SEM is a set of statistical techniques used to test the relationships between observed and latent constructs. The SEM includes two basic components: the structural model, which is the path model that relates independent to dependent variables, and the measurement model, which specifies the indicators for each variable (Hair et al., 2014). The SEM allows the researcher to test theories of relationships among constructs that represent the proposed model and assess how well this model fits the data. If the proposed model has an acceptable fit, it can be concluded that the model is supported.

In this study, a two-phase SEM process was used to analyse the data (Anderson & Gerbing, 1988). First, we utilised exploratory and confirmatory factor analyses (EFA and CFA, respectively) to confirm the factorial stability and multidimensionality of the proposed factors. Then, we utilised SEM to confirm the structural model and test the hypothesised relationships among the key constructs in the model, which was accomplished using the direct effect,

followed by the moderation effect. The following offers discussion on the procedure of SEM for this study.

### **5.12.1 Exploratory Factor Analysis**

EFA is used to explore the factor structure of a measure and examine its internal reliability. This approach is generally recommended for scale development, but it is not necessary when adopting a valid and reliable measurement scale from the existing literature (Hair et al., 2014; Netemeyer et al., 2003; Slavec & Drnovšek, 2012). While this study adapted scales from prior research to measure the constructs, they were modified to fit the context, and some measurement items were newly developed. Therefore, EFA was performed to confirm that each measurement item loaded into its respective construct (Hair et al., 2014).

Prior to conducting EFA, it is necessary to evaluate the sufficiency of the dataset (Osborne & Costello, 2005). Thus, several suitability tests were used to evaluate the suitability of using EFA (Osborne & Costello, 2005), including checking the correlation coefficients and the anti-image correlation matrix and using both Bartlett's test of sphericity and the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy. The recommended threshold is 0.3 for the correlation coefficients and 0.5 for the anti-image correlation matrix (Hair et al., 2014; Tabachnick & Fidell, 2013). A statistically significant Bartlett's test of sphericity ( $\text{sig.} < 0.05$ ) indicated that sufficient correlations existed among the variables, and KMO values greater than 0.6 indicated that the sample was adequate (Hair et al., 2014; Tabachnick & Fidell, 2013).

EFA was then conducted using the process outlined by different scholars (e.g., Hair et al., 2014; Osborne et al., 2014). The first step was selecting an extraction method. The Maximum Likelihood is recommended as the most flexible extraction method and best able to cope with different model specifications (De Winter & Dodou 2012). The next step was determining how many factors to extract and analyse. The number of factors to extract was

interpreted according to the theoretical framework of the study (Osborne et al., 2014; Revelle & Rocklin, 1979; Thompson, 2004). Choosing a rotation method was then needed. The two common rotation methods are orthogonal (varimax and equimax) and oblique (oblimin and promax). The direct oblimin oblique rotation method was selected because it allows a degree of correlation between the factors, which is consistent with social science research (Field, 2013). Finally, it is critical to determine items' quality and finalise the factors and items. A factor loading of 0.30 was considered significant and was thus used as the threshold for the analysis (Field, 2013; Hair et al., 2010). The acceptable communality value was 0.2 and above (Child, 2006; Hair et al., 2010; Pallant, 2013; Tabachnick & Fidell, 2013). The next chapter provides details to justify the procedure and the choice of methods used in EFA.

### **5.12.2 Confirmatory Factor Analysis**

Following the use of EFA, CFA was used to verify the structure of the scale. CFA assesses the overall fit of the measurement model and enables the researcher to test how well the measured variables represent the constructs (Hair et al., 2014). As a recommended step before executing SEM (Hair et al., 2014), CFA involves specifying the measurement model, which is presented by a diagram wherein each measure (item) is assigned to its construct (latent variable). The measurement models of this study were confirmed via two stages using the CFA approach (Hair et al., 2014): (a) examining all factors that emerged from EFA and (b) examining the full measurement model. The measurement models confirmed that each set of indicators represented the construct (Hair et al., 2014). The measurement models were evaluated using different model fit indices. The next section provides a detailed discussion of these indices and concludes with a decision regarding which fit indices were used in this research.

### 5.12.3 Model Fit Assessment

Three model fit categories are used to evaluate fitness: absolute fit, incremental fit and parsimonious fit. Each category includes several fitness indices that can reflect the model's current fitness as follow:

First, absolute fit includes the chi-squared (CMIN)  $\chi^2$  goodness-of-fit (GOF), the root mean square of error approximation (RMSEA), the standardised root mean residual (SRMR) and the goodness-of-fit index (GFI).

$\chi^2$  is a GOF statistic that assesses the magnitude of discrepancy between the sample and fitted covariance matrices (Hu & Bentler, 1999) and measures how well the observed data fit the hypotheses' expected data. It is the most fundamental absolute fit index and is the only statistics-based SEM fit measure (Byrne, 2010; Hair et al., 2014). To achieve a good model fit,  $\chi^2$  should provide a non-significant result (i.e., a p-value > 0.05) (Hair et al., 2014). A significant value of  $\chi^2$  indicates that the proposed model is significantly different from the data. Therefore, a non-significant value of  $\chi^2$  is desired to achieve a good model fit, with no significant difference between the observed and estimated covariance matrices (Hair et al., 2014; Schumacker & Lomax, 2004).

Importantly, the  $\chi^2$  GOF test is not recommended as the sole GOF measure due to its limitations (Hair et al., 2014), including its sensitivity to both the sample size, which may lead to rejection of the model when large samples are used (Bentler & Bonnet, 1980; Hair et al., 2014), and the number of observed variables as well as the model's complexity (Hair et al., 2014). Therefore, this statistical test becomes less meaningful as sample sizes increase or the number of observed variables increases (Hair et al., 2014). The  $\chi^2$  GOF test also assumes multivariate normality; thus, the test may fail due to severe non-normality in the data, even though the model itself is properly specified (McIntosh, 2007). These limitations may lead to an inflated Type I error rate for model rejection (e.g., the probability of rejecting the null

hypothesis when it is true) (Curran et al., 1996; Schermelleh-Engel et al., 2003; West et al., 1995). As a result, Hair et al. (2014) recommended reporting other GIFs along with the  $\chi^2$ , even if the resulting value of  $\chi^2$  is not favourable. In addition, Wheaton et al. (1977) proposed the value of CMIN divided by the degree of freedom (DF) to minimise the sample size's impact on the model. The recommended CMIN/DF value was between 5 and 2 to achieve the best model fit (Tabachnick & Fidell, 2013; Wheaton et al., 1977).

The **RMSEA**, which is one of the most widely used measures of model GOF in CFA and SEM, attempts to correct for the tendency of the CMIN to reject models with large samples or many observed variables (Hair et al., 2014). The RMSEA indicates how well a model fits a population. The cut-off criterion for the RMSEA is debatable: an RMSEA value  $\leq 0.05$  has been defined as a 'close fit' (Browne & Cudeck, 1993; Steiger, 1990). Therefore, RMSEA values closer to zero indicate a better fit (Hair et al., 2014). Browne and Cudeck (1993) suggested that RMSEA values of  $\leq 0.05$  indicate a good fit, values between 0.05 and 0.08 show an adequate fit, values between 0.08 and 0.10 provide a mediocre fit and values of  $> 0.10$  indicate an unacceptable fit. However, there is general agreement among scholars that the value of the RMSEA for a good model fit should be  $< 0.05$  (e.g., Bollen, 1989; Byrne, 2010; Hair et al., 2014; Steiger, 1990). Hu and Bentler (1999) recommended  $< 0.06$  as a cut-off criterion. The RMSEA is sensitive to a model's complexity and sample size (Hair et al., 2014; Hu & Bentler, 1999). Hu and Bentler (1999) argued that the RMSEA is less preferable when the sample size is small ( $n < 250$ ). Hair et al. (2014) provided some guidelines for using the RMSEA index based on different sample sizes and model complexities, with an RMSEA value of 0.07 acceptable when the sample size exceeds 250 and the number of observed variables is  $> 30$ , which is the case in the current study.

The **SRMR** is the average of the standardised residuals between the observed correlation and the model-reproduced correlation (Bentler, 1995). This measure is less sensitive

to both distribution non-normality and sample size (Hu & Bentler, 1999). The value of zero for the SRMR indicates a perfect fit, and values  $< 0.1$  are considered acceptable, with lower SRMR values indicating a better fit (Hair et al., 2014). Hu and Bentler (1999) suggested that a model has a good fit when the SRMR is  $< 0.08$ .

The **GFI** was an early attempt to develop a less sensitive fit statistic to the sample size (Hair et al., 2014). However, it is influenced by both the sample size and the model's complexity (Hair et al., 2014; Hu & Bentler, 1999). GFI values of  $> 0.90$  are considered a good model fit. Recent development of other fit indices has reduced the use of the GFI in academia (Hair et al., 2014). The GFI was also criticised by Hu and Bentler (1999) as a poor measure of overall model fit.

Second, the incremental fit includes the normed-fit index (NFI), the comparative fit index (CFI) and the Tucker Lewis index, which is also known as the non-normed fit index (NNFI).

The **NFI**—one of the earliest developed incremental fit indices (Bentler & Bonett, 1980; Hair et al., 2014)—assesses the difference between the  $\chi^2$  value of the model and the  $\chi^2$  of the null model divided by the  $\chi^2$  value for the null model (Hair et al., 2014). The NFI values range between 0 and 1, with a value  $> 0.90$  indicating a good fit (Bentler & Bonnet, 1980). One disadvantage of this index is that it is sensitive to complex models, which will necessarily have higher index values that artificially inflate the estimate of the model fit (Hair et al., 2014). This has led to a decline in using this index.

The **CFI** is also amongst the most widely used measures of model GOF in CFA and SEM because it has many desirable properties, including its relative (yet incomplete) insensitivity to model complexity (Hair et al., 2014). The CFI assesses the fit of a proposed model to the fit of a baseline or null model (McDonald & Marsh, 1990). CFI values vary from 0 to 1, with a value closer to 1 indicating a better fit. A CFI value  $> 0.90$  suggests a good model

fit (Bentler & Bonett, 1980; Hair et al., 2014; Tabachnick & Fidell, 2013). The CFI is recommended over the NFI because it is considered an upgraded version of the NFI (Bentler, 1990; Byrne, 2010; Hu & Bentler, 1999).

The **NNFI** is conceptually similar to the NFI, but it varies in that it compares the normed  $\chi^2$  values for the null and specified model; hence, it considers a model's complexity (Hair et al., 2014). Given that the NNFI is not normed, it can fall outside the 0–1 range. A model with a higher value indicates a better fit than a model with a lower value. NNFI values > 0.90 indicate an acceptable fit (Bentler & Bonett, 1980); however, values of .95 and higher are more desirable (Hu & Bentler, 1999).

Third, parsimonious fit includes the adjusted GFI (AGFI), which corrects the GFI by considering differing degrees of model complexity via adjusting the GFI by a ratio of the DF used in a model to the total DF available (Hair et al., 2014). The AGFI favours less complex models with a minimum number of free paths. However, the AGFI is used less frequently compared to the other indices because it is affected by both the sample size and the model's complexity (Hair et al., 2014). Table 5-12 summarizes the model fitness indices.

**Table 5-12***Model Fit Indices*

Category	Indices		Level of acceptance	Reference
Absolute fit	Chisq	Discrepancy Chi Square	$P > 0.05$ , Sensitive to the sample sizes and the number of observed variables	Hair et al., (2010)
	RMSEA	Root Mean Square of Error Approximation	Range 0.05 to 0.1 is acceptable	Browne and Cudeck (1992); Steiger (1989)
	GFI	Goodness of Fit Index	$> 0.90$	Joreskog and Sorbom (1984)
	SRMR	Standardised Root Mean Square Residual	$< 0.08$	Hu and Bentler (1999)
The incremental fit	NFI	Normed-fit index	$> 0.90$	Bentler and Bonnet (1980).
	CFI	Comparative Fit Index	$> 0.90$	Hair et al. (2010); Bentler and Bonett (1980)
	TLI	Non-Normed Fit index	$> 0.90$	Bentler and Bonett (1980)
The parsimonious fit	AGFI	Adjusted Goodness of Fit Index	$> 0.90$	Tanaka and Huba (1985)

The question of which fit indices are optimal has been highly debated (Hair et al., 2014). McDonald and Ho (2002) claimed that the CFI, the GFI, the NFI and the NNFI are the most commonly reported fit indices. Hu and Bentler (1999) suggested a two-index presentation strategy, which includes reporting the SRMR with either the NNFI, the RMSEA or the CFI. Hair et al. (2014) and Holmes-Smith et al. (2006) recommended reporting at least one

incremental index and one absolute index in addition to the  $\chi^2$  value and the associated DF. Kline (2015) advised reporting the CMIN, the RMSEA, the CFI and the SRMR.

Notably, the literature shows no agreement among scholars regarding which fitness indices to report. Therefore, reporting a variety of indices is necessary to evaluate a model (Crowley & Fan, 1997; Hair et al., 2014). Hair et al. (2014) stated that ‘three to four fit indices provide adequate evidence of a model’s fit’ (p. 583). They believed that reporting the  $\chi^2$  value and the DF, the CFI or the NNFI and the RMSEA would provide sufficient unique information to evaluate a model. They also provide guidelines for using fit indices that considers different sample sizes and model complexity. For example, based on a sample of 250 respondents and a four-construct model with only 12 total indicator variables, an insignificant  $\chi^2$  value, a CFI of at least 0.97, and a RMSEA of 0.08 or lower would still produce a good model fit.

Based on these authors’ guidelines, the above discussion and consideration of both the sample size and the model complexity of the current study, the CMIN, its DF and p value, the RMSEA, the CFI and the value of the CMIN/DF have been chosen over other indices for this research. This combination consists of one absolute fit index (e.g., the GFI, the RMSEA, or the SRMR), one incremental fit index (e.g., the CFI or the NNFI), one GFI (e.g., the CFI, the NNFI, etc.) and one badness-of-fit index (e.g., the RMSEA or the SRMR). This combination of fit indices is considered suitable to evaluate the model in this research, which comprises 41 measurement items, with a sample size of 400 cases (Hair et al., 2014).

#### **5.12.4 Reliability and Validity Assessment**

Assessing the reliability and validity of full measurement models is required before modelling the structural model (Awang, 2012; Hair et al., 2014). Reliability and validity must be addressed because they evaluate the quality of a measurement model and define how well

the scales represent the constructs. Therefore, the scales were evaluated to establish both reliability and validity for the measurement model.

Reliability reflects the degree of consistency between multiple measurements of a variable (Hair et al., 2010). In this study, two reliability tests were conducted: Cronbach's alpha ( $\alpha$ ) and composite reliability (CR). Cronbach's alpha is the most widely used measure to assess the consistency of the entire scale. The acceptable value for Cronbach's alpha is 0.7 or higher (Hair et al., 2010). Additionally, the CR test, which was derived from CFA, measures the reliability and internal consistency of the measured variables representing a latent construct (Hair et al., 2010). The CR should be 0.7 or higher to indicate good reliability, meaning that the measures all consistently represent the same latent construct (Hair et al., 2010).

Validity represents the accuracy of a measure. It reflects the degree to which an instrument accurately measures what it intends to measure (Hair et al., 2014). This study conducted three types of validity: convergent validity, discriminant validity and face validity. The following explains each of these types.

First, convergent validity, which reflects the correlations between different measures of the same construct, can be measured by the average variance extracted (AVE) factor loadings and the CR. Convergent validity is established if the factor loading is 0.5 or higher; the AVE is 0.5 or higher; and the CR is 0.7 or higher (Fornell & Larcker, 1981; Hair et al., 2014).

Second, discriminant validity reflects the extent to which a construct is truly distinct from other constructs and ensures that the scale is sufficiently different from other related scales. Discriminant validity between constructs can be assessed via the following three approaches.

1. Constrain the correlation between any two constructs to be specified (fixed) as equal to one. If there is a significant chi-square difference between the constrained and unconstrained models, discriminant validity is supported.
2. Check the estimated correlations between the constructs, which should not exceed 0.95 (Bagozzi & Yi, 1988).
3. Compare the AVE value for each construct with the squared correlations of the remaining constructs of the study (Fornell & Larcker, 1981; Hair et al., 2014). To achieve discriminant validity, the AVE should be greater than the squared correlation estimate (Fornell & Larcker, 1981; Hair et al., 2014).

Third, face/content validity reflects the extent to which the content of the items is consistent with the construct's definition (Hair et al., 2014). It can be established by conducting a pilot study with subpopulations and an examination of the questionnaire by experts in the marketing field. The face/content validity of the questionnaire is discussed in section 5.6.

#### **5.12.5 Structural Model and Hypotheses Testing**

Following the confirmation of the measurement model, the structural model, which represents the relationships among the hypothesised model's constructs, was tested. The purpose of testing the structural model is to confirm the relationships among the latent variables and subsequently accept or reject the model (Byrne, 2010). Therefore, SEM was utilised to confirm the structural model and test the hypothesised relationships among the key constructs in the model, which was accomplished using the direct effect, followed by the moderation effect. The hypothesised structural model was tested using AMOS version 26. If the proposed model has an acceptable fit, it can be concluded that the model is supported (Byrne, 2013; Hair et al., 2014). Next, *p*-values and the standardised  $\beta$  (beta) coefficient analyses were examined to describe the nature of the relationships between the model's constructs (Byrne, 2013; Hair et al., 2014). The coefficients were used to describe the relationship between constructs, and

the  $p$ -values of the coefficients indicated whether these relationships were statistically significant. The results of the structural path model were then used to test the study's hypotheses regarding the antecedents and outcomes of CEB on Twitter. A  $t$  value ( $t > 1.96$ ) and a significance level ( $p < 0.05$ ) were used to identify whether each hypothesis was supported (Byrne, 2010). Notably,  $p < 0.001$  indicates that a hypothesis is strongly supported (Su & Yang, 2010).

### 5.13 Ethical Considerations

Ethics include the study of right and wrong to determine what is good for society. Research ethics are 'the moral principles guiding research from its inception through the completion and publication of results' (Code of Human Research Ethics, 2010, p. 5). Thus, researchers are required to respect the rights and dignity of individuals who participate in the research that they conduct. Notably, the study process was guided by the Victoria University Human Research Ethics Committee (VUHREC), and the research was conducted after being granted approval for application number (HRE 19-133) (see Appendix 5). The following sections highlighted some of the ethical issues that are related to the current project.

**Informed consent.** Informed consent is a major ethical concern in human research. According to Armiger (1997), 'it means that a person knowingly, voluntarily, intelligently and in a clear and manifest way gives his consent' (p. 331). Therefore, a potential research participant must agree to participate in research based on his/her full understanding and knowledge of that research, including its possible risks and benefits. For this study, all informed consent information was built into the research questionnaire and thus documented (see Appendix 3). The researcher ensured that all participants received adequate information about the research (see Appendix 4). Further, the researcher ensured that participation was voluntary and did not cause undue pressure or stress on the participants, who had the right to decline to

provide any data that would cause them discomfort. In addition, participants were given information about whom to contact for questions about the project and/or if they had issues that arose during any phase of the research.

**Privacy.** Privacy is defined as ‘the freedom an individual has to determine the time, extent and general circumstances under which private information will be shared with or withheld from others’ (Levine, 1976). An invasion of privacy occurs when the private information of participants is shared with others without either their knowledge or consent (Kelman, 1977). Invasion of privacy can also occur by asking about personal or sensitive information, such as questions about income and personal habits. A researcher must understand that obtaining informed consent does not allow him/her to abrogate privacy, and participants may refuse to answer any question for any reason. Notably, the ethical issues of privacy are linked to confidentiality, which is keeping all personal information of the research participants private and secure. Participants expect that all provided information will be treated confidentially and will not be identifiable as theirs. In the current study, the researcher guaranteed confidentiality of the participants’ identities as well as the data collected throughout the entire research process. Confidentiality also requires the researcher to secure and protect all collected data from both misuse and loss.

**Beneficence and non-maleficence.** Beneficence in research ethics means maximising the benefits of research for others (e.g., society, knowledge, etc.), while non-maleficence includes avoiding, preventing and minimising harm to others (Ford & Reutter, 1990). These are duties of the researcher. The results of this study provide new theoretical and practical insights into the knowledge of marketing to help practitioners, academics and customers understand the engagement phenomenon and benefit from its proper use. However, harm can occur in many forms, including physiological, emotional, social and economic (Burns & Grove, 2005). These can occur by asking questions that cause either emotional discomfort,

embarrassment, worry or stress. Such questions should be avoided. Another potential risk is harming participants' computers, tablets and other devices through the unintentional spread of viruses when the questionnaires are distributed through Twitter accounts. The researcher guaranteed that all messages were free of viruses by consulting and communicating with the university's IT department.

#### **5.14 Chapter Summary**

This chapter explained that the methodology applied in this study. This study follows a postpositivist philosophical paradigm. The epistemological view was objectivism with a realistic stance because the purpose of this study was to investigate CEB within the Twitter environment to explain the behaviour of customers. The quantitative approach included employing a self-administered online survey to test the hypothesised relationships among the key constructs in the proposed model of CEB with the brand on Twitter. The questionnaire design process was guided by the nine-step framework of Churchill and Iacobucci (2005). Scales from prior research were used to measure the constructs, with modifications to fit the context of this study. A snowball sampling method was used to identify the study respondents. The chapter explained the SEM technique, the model fit, the reliability and validity tests and the hypothesis testing. A two-phase SEM process was chosen to analyse the data: EFA and CFA were used to confirm the factorial stability and multidimensionality of the proposed factors, followed by SEM to confirm the structural model and test the hypothesised relationships among the key constructs in the proposed model. The chapter concluded by discussing ethical issues related to the current study. The next chapter discusses the findings.

## **Chapter 6 Analysis and Results**

### **6.1 Introduction**

This chapter offers a detailed discussion of the research's results and findings. Descriptive analyses and structural equation modelling (SEM) were the major statistical techniques used in this research to confirm the theory and the proposed hypotheses. The chapter firstly addresses the characteristics of the study sample by using various descriptive analyses. It includes data cleaning and information about participants' demographics and general use of Twitter. The chapter secondly profiles Twitter users and the reasons why they use Twitter. Thereafter, a two-phase structural equation modelling (SEM) process was used to analyse the data. It includes utilising EFA and CFA to verify a factor structure. The scale reliability and validity analysis are provided and discussed. The chapter closes with the results of testing the structural model and the hypothesised relationships in the model.

### **6.2 Preparation and Examination of Data**

#### **6.2.1 Data Cleaning**

To prepare the data for analysis, they were screened and cleaned. Table 5-1 details information about the questionnaire responses. In total, 666 responses were recorded in Qualtrics Survey Software by the survey's closing date. Twelve of these responses were ignored because the respondent either declined to participate in the study or agreed to participate but did not take the survey. The screening questions, including whether participants were Saudi citizens and 18 years of age or older, helped determine eligibility to participate in the study and resulted in the elimination of another 46 responses. Deletion of these recorded responses resulted in 608 cases remaining, which were further filtered to identify the purposive sampling.

The first round of sample review involved handling incomplete questionnaires. While force response validation was applied to the survey questions to avoid missing data problems, many incomplete questionnaires were detected, which caused missing data. Most of the incomplete questionnaires were grouped towards the end of the survey, which may indicate that the length of the questionnaire was the main reason for incompleteness. Notably, listwise deletion, which is the most frequently used method for handling missing data, is considered a reasonable strategy if there is a large enough sample, which was the case in this study (Kang, 2013). The primary advantage of listwise deletion is that it allows for all analyses to be conducted on the same number of cases (Kline, 2015). After deletion of these incomplete questionnaires, a total of 424 responses were identified.

The second round of sample review involved selecting participants with relevance to the research topic and focus. Considering the purpose of the study, sampling had to satisfy the following key criteria: Saudi consumers with Twitter usage who are either following or at least interested in one brand on Twitter. Therefore, the remaining responses were screened based on these criteria. Question 3 on the participants' general use of Twitter section in the questionnaire helped filter out participants without a Twitter account. One participant indicated not having a Twitter account and was removed from the sample.

As discussed in the previous chapter, questions 19, 20 and 21 on the questionnaire were designed as screening questions to ensure that participants indicated one brand that they follow and/or are interested in on Twitter. Participants who indicated that they neither follow nor are interested in a brand on Twitter were removed from the sample. Responses were identified as 'not applicable' if participants wrote 'None', 'Do not recall', 'Other' or 'Do not care about brands'; they wrote more than one brand (e.g., 'Adidas and Lexus'); or they wrote nonsensical data (e.g., 'hagfd', '...' or 'LLL'). Accordingly, 24 non-applicable participants were detected and eliminated, as illustrated in Table 6-1.

**Table 6-1***Data Cleaning and Selecting*

<b>Category</b>	<b>Number of Responses</b>	<b>Decision</b>	<b>Reasons for decision</b>
Not valid	4	Deleted	Did not agree to participate
	8	Deleted	Agreed to participate but did not continue
	20	Deleted	Less than 18 years old
	26	Deleted	Non-Saudi
Incomplete	184	Removed from analysis	Incomplete responses
Not applicable	1	Removed from analysis	Did not have a Twitter account
	11	Removed from analysis	- Did not nominate a brand that they follow and/or are interested in on Twitter - Their responses were: nonsensical data
	7	Removed from analysis	- Did not nominate a brand that they follow and/or are interested in on Twitter - Their response was: do not care about brands, others, not following any, not interested, do not recall.
	5	Removed from analysis	- Did not nominate a brand that they follow and/or are interested in on Twitter - Their responses were: more than one brand.
Applicable	400	Used in the analysis	Valid responses
Total responses recorded in Qualtrics Survey Software	666		

As a result, a final sample of 400 valid responses after screening and cleaning was used for the analysis. The usable sample is composed of 297 participants who follow a brand on Twitter and 103 participants who are interested in and nominated a brand from the Twittersphere. Ultimately, the overall dropout rate of 34% was not surprising, given the length of the questionnaire and the strict procedures for sample selection.

## 6.2.2 Normality and Outliers

Another step of data screening was assessing normality. The univariate normality for each item was assessed via the following tools: (a) the two most common normality tests (Shapiro-Wilks and the Kolmogorov-Smirnov), (b) the values of skewness and kurtosis and (c) the Q-Q plots and histograms' shapes (Hair et al., 2010; Pallant, 2013). When the Shapiro-Wilks and the Kolmogorov-Smirnov tests were performed (see table 6-2), all constructs produced a significance level of less than  $< .05$ , which indicated non-normality. However, this is quite common in larger samples (Pallant, 2013; Tabachnick & Fidell 2013).

**Table 6-2**  
*Tests of Normality*

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Q14 1	0.153	400	0.000	0.911	400	0.000
Q15 1	0.132	400	0.000	0.927	400	0.000
Q16 1	0.122	400	0.000	0.944	400	0.000
Q17 1	0.156	400	0.000	0.948	400	0.000
Q17 2	0.140	400	0.000	0.941	400	0.000
Q17 3	0.139	400	0.000	0.940	400	0.000
Q17 4	0.156	400	0.000	0.926	400	0.000
Q18 1	0.185	400	0.000	0.936	400	0.000
Q18 2	0.171	400	0.000	0.936	400	0.000
Q18 3	0.203	400	0.000	0.926	400	0.000
Q18 4	0.175	400	0.000	0.936	400	0.000
Q22 1	0.189	400	0.000	0.916	400	0.000
Q22 2	0.197	400	0.000	0.904	400	0.000
Q22 3	0.192	400	0.000	0.918	400	0.000
Q22 4	0.208	400	0.000	0.871	400	0.000
Q22 5	0.214	400	0.000	0.880	400	0.000
Q22 6	0.160	400	0.000	0.913	400	0.000
Q22 7	0.171	400	0.000	0.908	400	0.000
Q22 8	0.198	400	0.000	0.894	400	0.000
Q22 9	0.159	400	0.000	0.917	400	0.000
Q22 10	0.165	400	0.000	0.912	400	0.000
Q22 11	0.161	400	0.000	0.922	400	0.000

**Table 6-2**  
*Tests of Normality*

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Q22_12	0.154	400	0.000	0.922	400	0.000
Q22_13	0.173	400	0.000	0.925	400	0.000
Q22_14	0.161	400	0.000	0.928	400	0.000
Q22_15	0.183	400	0.000	0.915	400	0.000
Q22_16	0.151	400	0.000	0.920	400	0.000
Q23_1	0.179	400	0.000	0.907	400	0.000
Q23_2	0.201	400	0.000	0.905	400	0.000
Q23_3	0.158	400	0.000	0.914	400	0.000
Q23_4	0.191	400	0.000	0.895	400	0.000
Q23_5	0.157	400	0.000	0.911	400	0.000
Q23_6	0.192	400	0.000	0.886	400	0.000
Q23_7	0.173	400	0.000	0.911	400	0.000
Q23_8	0.181	400	0.000	0.888	400	0.000
Q23_9	0.194	400	0.000	0.881	400	0.000
Q23_10	0.171	400	0.000	0.904	400	0.000
Q24_1	0.204	400	0.000	0.904	400	0.000
Q24_2	0.239	400	0.000	0.838	400	0.000
Q24_3	0.227	400	0.000	0.864	400	0.000
Q24_4	0.210	400	0.000	0.858	400	0.000

a. Lilliefors Significance Correction

The values of skewness and kurtosis were also checked for all variables, and they indicated a violation of normality (see Table 6-3). If the values are greater than  $\pm 1.0$ , then the skewness or kurtosis for the distribution is outside the range of normality, so the distribution cannot be considered normal.

**Table 6-3**  
*The Skewness and Kurtosis of the Data*

	Minimum	Maximum	Skewness	Kurtosis
Q14_1	1	7	-0.543	-0.337
Q15_1	1	7	-0.354	-0.569
Q16_1	1	7	0.206	-0.616
Q17_1	1	7	0.070	-0.454

**Table 6-3**  
*The Skewness and Kurtosis of the Data*

	<b>Minimum</b>	<b>Maximum</b>	<b>Skewness</b>	<b>Kurtosis</b>
Q17 2	1	7	-0.198	-0.472
Q17 3	1	7	-0.227	-00.534
Q17 4	1	7	-0.267	-0.578
Q18 1	1	7	-0.225	-0.504
Q18 2	1	7	-0.301	-0.631
Q18 3	1	7	-0.411	0.286
Q18_4	1	7	-0.392	-0.112
Q22 1	1	7	-0.506	-0.654
Q22_2	1	7	-0.729	-0.142
Q22 3	1	7	-0.541	-0.568
Q22_4	1	7	-1.072	1.014
Q22 5	1	7	-0.968	0.502
Q22_6	1	7	0.197	-1.050
Q22 7	1	7	0.188	-1.099
Q22_8	1	7	0.395	-1.007
Q22 9	1	7	-0.155	-1.132
Q22_10	1	7	-0.273	-1.086
Q22 11	1	7	-0.149	-1.106
Q22_12	1	7	-0.073	-1.151
Q22 13	1	7	-0.273	-0.935
Q22_14	1	7	-0.079	-1.031
Q22 15	1	7	0.337	-0.940
Q22_16	1	7	-0.003	-1.156
Q23 1	1	7	-0.745	0.372
Q23_2	1	7	-0.780	0.582
Q23 3	1	7	-0.640	0.359
Q23_4	1	7	-0.824	0.772
Q23 5	1	7	-0.675	0.270
Q23_6	1	7	-0.949	1.147
Q23 7	1	7	-0.673	0.388
Q23_8	1	7	-0.913	1.044
Q23 9	1	7	-0.998	1.022
Q23_10	1	7	-0.703	0.308
Q24 1	1	7	-0.785	0.168
Q24_2	1	7	-1.354	2.346
Q24 3	1	7	-1.167	1.725
Q24_4	1	7	-1.157	1.414

The assumption of normality was further checked by observing the QQ plots and the histograms' shapes and distribution curves. The QQ plots and histograms reflected that all the variables varied in terms of normality. All the variables are more or less normally distributed. While most of the histograms were mound-shaped, some of the QQ plots and histograms indicated a slight violation of normality.

Based on the findings of the normality analysis, the data exhibits univariate non-normality but still within the recommended limits suggested by Kline (2015) (i.e. skewness for all items less than 3). Therefore, the analysis revealed that the violation of normality does not depart greatly from a normal distribution because the skewness

The data set also was tested for multivariate normality by using SPSS AMOS. Mardia's coefficient of multivariate kurtosis was examined for multivariate normality. Normalised coefficients greater than 3 reflect non-normality (Mardia 1970, 1974). Mardia's coefficient of multivariate kurtosis and its normalised score (z-score) were 229.886 and 50.823 (see table 6-4). The finding implied that the sample had a multivariate non-normal distribution.

**Table 6-4**  
*Assessment of Multivariate Normality*

<b>Variable</b>	<b>Min</b>	<b>Max</b>	<b>Skew</b>	<b>C.R.</b>	<b>Kurtosis</b>	<b>C.R.</b>
Q22_16	1.000	7.000	-0.003	-0.021	-1.156	-4.721
Q22_11	1.000	7.000	-0.149	-1.213	-1.107	-4.520
Q22_4	1.000	7.000	-1.068	-8.722	0.986	4.027
Q22_2	1.000	7.000	-0.727	-5.934	-0.155	-0.634
Q22_3	1.000	7.000	-0.539	-4.397	-0.575	-2.349
Q22_12	1.000	7.000	-0.073	-0.592	-1.151	-4.700
Q22_13	1.000	7.000	-.272	-2.217	-.938	-3.831
Q22_14	1.000	7.000	-0.078	-0.639	-1.033	-4.216
Q22_15	1.000	7.000	0.336	2.743	-0.943	-3.851
Q23_7	1.000	7.000	-0.671	-5.476	0.368	1.504
Q23_6	1.000	7.000	-0.945	-7.720	1.118	4.564
Q23_5	1.000	7.000	-0.672	-5.488	0.252	1.029
Q23_10	1.000	7.000	-0.700	-5.716	0.289	1.179
Q23_9	1.000	7.000	-0.994	-8.117	0.994	4.059
Q23_8	1.000	7.000	-0.910	-7.430	1.016	4.146

**Table 6-4**  
*Assessment of Multivariate Normality*

Variable	Min	Max	Skew	C.R.	Kurtosis	C.R.
Q23_3	1.000	7.000	-0.638	-5.209	0.339	1.385
Q23_2	1.000	7.000	-0.777	-6.346	0.559	2.284
Q23_1	1.000	7.000	-0.742	-6.059	0.352	1.438
Q22_6	1.000	7.000	0.196	1.604	-1.052	-4.295
Q22_7	1.000	7.000	0.188	1.533	-1.101	-4.493
Q22_8	1.000	7.000	0.393	3.212	-1.010	-4.123
Q22_9	1.000	7.000	-0.155	-1.263	-1.132	-4.623
Q14_1	1.000	7.000	-0.541	-4.421	-0.347	-1.418
Q15_1	1.000	7.000	-0.353	-2.880	-0.577	-2.356
Q16_1	1.000	7.000	0.206	1.679	-0.624	-2.546
Q18_1	1.000	7.000	-0.224	-1.830	-0.513	-2.094
Q18_3	1.000	7.000	-0.410	-3.345	0.268	1.093
Q18_4	1.000	7.000	-.390	-3.186	-0.126	-0.514
Q17_2	1.000	7.000	-0.197	-1.608	-0.481	-1.962
Q17_3	1.000	7.000	-0.226	-1.847	-0.542	-2.212
Q17_4	1.000	7.000	-0.266	-2.173	-0.586	-2.391
Multivariate					229.886	50.823

Mahalanobis distance was used to detect outliers. Mahalanobis distances were calculated using SPSS. The calculated values were compared against the critical value of chi-square ( $\chi^2$ ) distribution to identify outliers. If the cases where the Mahalanobis distance of the case is larger than the critical value, then it identifies as outlier (Tabachnick & Fidell 2013). The critical value of  $\chi^2$  distribution at the probability of  $p = 0.001$  for the 41 variables in the data set was 76.084. There were 22 cases of outliers representing less than 5% of cases in the sample of 400.

However, the effect of normality is diminished when the sample size exceeds 200 cases (Hair et al., 2010), which occurred in this study ( $N = 400$ ). Therefore, it was decided to not take further treatment for the data set. Ultimately, the sample size remained at 400.

## 6.3 Descriptive Statistics

### 6.3.1 Demographic Information

The overview of participants' demographics information is presented in Table 6-5. The sample consisted of 52.5% male and 47.5% female. The top three age ranges represented were 25–34 years (43.3%), followed by 35–44 years (31.8%) and 18–24 years (14.2%). The majority of the participants were highly educated, with 41.5% holding a bachelor's degree and 34.8% holding postgraduate degrees. In terms of professional status and income, the majority of the participants (57%) were employed full time and 30% of the participants had monthly income between 3,000 and 12,000 Saudi Arabian Riyal (SAR) (800 and 3200 United States Dollars).

**Table 6-5**

*Participants' Demographics*

Variables		N	%
Age in years	18–24	57	14.2
	25–34	173	43.3
	35–44	127	31.8
	45–54	33	8.3
	55–64	9	2.3
	+ 64	1	0.3
Gender	Male	210	52.5
	Female	190	47.5
Education	Less than a high school diploma	3	0.8
	High school degree or equivalent	50	12
	Diploma degree	40	10
	Bachelor's degree	168	42
	Postgraduate degree	139	34.8
Professional status	Student	73	18.3
	Employed part time	8	2.0
	Employed full time	228	57
	Self-employed	30	7.5

**Table 6-5***Participants' Demographics*

Variables		N	%
	Unemployed	55	13.8
	Retired	6	1.5
Household income	Less than (SAR) 3,000	79	19.8
	Between (SAR) 3,000 and 12,000	123	30.8
	Between (SAR) 12,001 and 20,000	95	23.8
	Between (SAR) 20,001 and 30,000	30	7.5
	Over (SAR) 30, 000	15	3.8
	Prefer not to say	58	14.5

**6.3.2 The Participants' General Use of Twitter**

The participants' general use of Twitter was examined; unsurprisingly, 97.5% indicated that they use smartphones to access their Twitter accounts. The participants' activity on Twitter was assessed using membership duration, log-ons per day, time spent on the platform, activity level and the most used activities (see Table 6-6). It was found that 51 % of the participants had used Twitter for more than 8 years, while 32.3 % had used the platform between 4–8 years; the remainder had been using Twitter for less than 4 years. The participants were highly connected to Twitter, with 29.8% checking their Twitter accounts 2–6 times per day, 23.5% checking their accounts more than 10 times per day and 23.5% maintaining a constant connection to their Twitter account and receiving notifications in real time. In terms of time spent on Twitter checking accounts, 37.3% of the participants spent 16–30 minutes, followed by 19.8% at 31–60 minutes and 28.7% spending less than 15 minutes. The participants' activity on Twitter in terms of tweets, retweets, likes, replies and comments were as follows: active on a daily basis (21.3%), more than 5 times per day (10%), a few times a week (18.3%) and a few times a month (29.5%).

**Table 6-6***The participants' Activity on Twitter*

<b>Variables</b>		<b>N</b>	<b>%</b>
Membership duration	Less than a year	12	3.0
	Between 1 year and less than 4 years	55	13.8
	Between 4 years and less than 8 years	129	32.3
	8years or more	204	51
Daily Twitter log-ons	I do not log on every day	10	2.5
	Once a day	18	4.5
	2–6 times per day	119	29.8
	7–10 times per day	65	16.3
	More than 10 times per day	94	23.5
	Always connected to my Twitter account (I receive notifications in real time)	94	23.5
Time spent on Twitter	Less than 15 minutes	115	28.7
	16–30 minutes	149	37.3
	31–60 minutes	79	19.8
	61–90 minutes	22	5.5
	More than 90 minutes	35	8.8
Activity on Twitter	Never (I just read)	52	13.0
	A few times per month	118	29.5
	A few times per week	73	18.3
	Daily	85	21.3
	2–5 times per day	32	8.0
	More than five times per day	40	10.0
Devices used	Smartphones		97.5
	Tablet		4.0
	Laptop		11
	Desktop		4.5
	Others		0.8

In terms of the most used activities on their Twitter account, the mean (M) and standard deviation (SD) for each item were calculated. The results showed that the participants ranked tweets as the most used activity (M = 2.14, SD = 1.226), followed by likes (M = 2.40, SD = 1.382), retweets (M = 3.24, SD = 1.510), replies (M = 3.37, SD = 1.160), direct messages (M = 4.67, SD = 1.388) and mentions (M = 5.18, SD = 1.110) (See table 6-7). Therefore, the participants ranked tweets, likes, retweets and replies, as the most used activities on Twitter. Indeed, these four activities are considered quite important for the manifestation of engagement behaviour with brands on Twitter. This shows that our sample was relevant to the objective of the study.

**Table 6-7**

*The Most Used Activities on Twitter by Participants*

		Tweet		Retweet		Reply		Like		Direct message		Mention	
		N	%	N	%	N	%	N	%	N	%	N	%
<b>Rank</b>	1	148	37.0	64	16.0	24	6.0	137	34.3	22	5.5	5	1.3
	2	139	34.8	68	17.0	63	15.8	105	26.3	17	4.3	8	2.0
	3	55	13.8	95	23.8	131	32.8	60	15.0	36	9.0	23	5.8
	4	32	8.0	91	22.8	117	29.3	67	16.8	44	11.0	49	12.3
	5	20	5.0	44	11.0	54	13.5	19	4.8	160	40.0	103	25.8
	6	6	1.5	38	9.5	11	2.8	12	3.0	121	30.3	212	53.0
	Total	400	100	400	100	400	100	400	100	400	100	400	100
<b>Mean</b>		2.14		3.24		3.37		2.40		4.67		5.18	
<b>Std. Deviation</b>		1.226		1.510		1.160		1.382		1.388		1.110	
<b>Rank</b>		1		3		4		2		5		6	

The participants' following list was also examined using the type of social relation and the number of Twitter accounts that the participants follow (see table 6-8). It was found that the participants' most followed group was public figures (88.8%), followed by close friends (49%) and celebrities (45.5%). The least followed group was neighbours (1.8%). However, 8.5% indicated five other types of social relations, including teachers and university professors, organizations and clubs, environmental and social activists and economy and business experts. It was also found that 47.8% of the participants followed between 100–500 Twitter accounts, while 30.3% followed fewer than 100 Twitter accounts.

**Table 6-8**

*The participants' Following List*

Variables		N	%
Numbers of Twitter accounts followed	Less than 100	121	30.3
	100–500	191	47.8
	501–1,000	56	14
	1,001–2,000	19	4.8
	More than 2000	13	3.3
Group of people followed on Twitter	Public figures	355	88.8
	Close friends	196	49.0
	Celebrities	182	45.5
	Immediate family members	122	30.5
	Acquaintances	112	28.0
	Classmates	99	24.8
	Work or business colleagues	93	23.3
	Relatives not in my immediate family	65	16.3
	Others	34	8.5
	Neighbors	7	1.8

Finally, the participants' topics of interest on Twitter were examined, with 74.2% indicating that they follow at least one official brand account on Twitter. Further, 25.8% indicated that, while they do not follow an official brand account on Twitter, they are interested in at least one brand in the Twittersphere (see Table 6-9). In terms of Twitter topics that they found of the greatest interest, news was rated the highest (89%), followed by education (58.8%), social events (46.8%), political issues (44.8%) and brands and products (good and services) (41.8%). In addition, 11% of participants indicated topics in one or more of the following nine categories: sports, economics, poetry and literature, technology, art and design, health and wellbeing, weather, money and business and training and self-development (see Table 6-10).

**Table 6-9**

*Brands that the Participants Follow on Twitter*

		<b>Frequency</b>	<b>Percent</b>
Do you follow at least one official brand account on Twitter	Yes	297	74.2
	No	103	25.8
	Total	400	100.0

**Table 6-10***Topics of Interest on Twitter*

<b>Topics</b>	<b>N</b>	<b>%</b>	<b>Rank</b>
Fashion	58	14.5	9
News	356	89.0	1
Rumors/Gossip	52	13.0	10
Brands and products (goods & services)	167	41.8	6
Political issues	179	44.8	5
Education	235	58.8	2
Social events	187	46.8	3
Work	135	33.8	7
Music	85	21.3	8
Entertainment	181	45.3	4
Others	44	11.0	11

### **6.3.3 The Participants' Relationships with Brands on Twitter**

The participants indicated a variety of brands that they either follow and/or are interested in on Twitter. In total, 125 brands were identified in the collected data, of which 67 were global brands and 58 were local brands. We classified the brands into 14 categories, including communication services, food and beverage, banking and financial services, automobile, travel and hospitality, transportation and delivery, fashion and beauty, retail, online retail, health and fitness, furniture and home appliance, entertainment, technology and other. Brand profiles, which include the name, category, brand description and frequency in the data, of the brands used in this study are provided in Appendix 6.

### **6.3.4 The Participants' Reasons for Using Twitter**

In this thesis, we found it valuable to understand why people in Saudi Arabia use Twitter to provide additional evidence and justification for using Saudi Arabia as the context of this study. We aimed to establish some level of understanding regarding our study sample

and determine whether Saudis use Twitter for socializing, making friends and engaging with brands as important background information. Therefore, this section provided an overview of the many and varied reasons why participants use Twitter (see Table 6-11). To identify the reasons why our sample use Twitter, questions number 11 (with 13 items) were added in the questionnaire (see Appendix 1). These items were developed based on the uses and gratifications theory (Katz & Foulkes, 1962; Whiting & Williams 2013). In particular, Whiting and Williams (2013) identified the following ten uses and gratifications for using social media: social interaction, information seeking, passing time, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information sharing and surveillance/knowledge about others. In this study, three additional reasons were developed for the survey to understand why participants use Twitter in the Saudi context, including business and work purposes, find out about brands, and educational purposes. Therefore, 13 uses and gratifications were adopted to analysing the patterns of using Twitter in Saudi.

The relative importance index (RII) analysis was used to rank these reasons. This method computes the importance level of each variable based on a 5-point Likert scale: 1 = Never, 2 = Very often, 3 = Sometimes, 4 = Rarely and 5 = Always. Then, the RII scores were calculated to define the importance level for the variables. The RII scores were measured using the following formula:

$$RII = \sum \frac{W}{A \times N}$$

where w is the weighting as assigned by each respondent on a scale of one to five, with one implying the least and five implying the greatest. A is the highest weight, and N is the total number of the sample. According to Akadiri (2011), 5 important levels are transformed from the RII score: high (H) ( $0.8 \leq RI \leq 1$ ), high to medium (H-M) ( $0.6 \leq RI \leq 0.8$ ), medium (M) ( $0.4 \leq RI \leq 0.6$ ), medium to low (M-L) ( $0.2 \leq RI \leq 0.4$ ) and low (L) ( $0 \leq RI \leq 0.2$ ).

**Table 6-11***The Ranking of Uses and Gratifications for Using Twitter Among Participants*

<b>Variables</b>	<b>RII</b>	<b>Rank</b>	<b>Importance Level</b>
Using Twitter to seek out information	0.884	1	High
Using Twitter to pass the time	0.742	2	High–Medium
Using Twitter for social interactions	0.72	3	High–Medium
Using Twitter for information sharing	0.694	4	High–Medium
Using Twitter as a source of entertainment	0.68	5	High–Medium
Using Twitter to learn about what others are doing	0.668	6	High–Medium
Using Twitter to express thoughts and opinions	0.666	7	High–Medium
Using Twitter for educational purposes	0.656	8	High–Medium
Using Twitter to find out about brands and products (goods and services)	0.636	9	High–Medium
Using Twitter as a tool to communicate with others	0.628	10	High–Medium
Using Twitter to communicate because it is convenient	0.626	11	High–Medium
Using Twitter for relaxation purposes	0.602	12	High–Medium
Using Twitter for business and work purposes	0.462	13	Medium

To conclude, the results in Table 6.11 show that the participants of this study used Twitter for seeking information, social interaction, sharing information, expressing opinions and learning about brands and products, all of which were ranked by participants as ‘high to medium’ in importance. This shows that our sample was relevant to the objective of the study.

#### **6.4 Testing the Conceptual Model**

A two-phase structural equation modelling (SEM) process was used to testing the conceptual model (Anderson & Gerbing, 1988). The SEM includes two basic components: the measurement model, which specifies the indicators for each variable, and the structural model, which is the path model that relates independent to dependent variables (Hair et al., 2014). Therefore, we first utilised exploratory and confirmatory factor analyses (EFA and CFA, respectively) to confirm the factorial stability and multidimensionality of the proposed factors.

Then, we utilised SEM to confirm the structural model and test the hypothesised relationships among the key constructs in the model, which was accomplished using the direct effect, followed by the moderation effect.

#### **6.4.1 Exploratory Factor Analysis**

Exploratory factor analysis (EFA) is used to explore the factor structure of a measure and examine its internal reliability. While EFA is not necessary when adopting a valid and reliable measurement scale from the existing literature, it is generally recommended for scale development (Hair et al., 2014; Netemeyer et al., 2003; Slavec & Drnovšek, 2012). In this study, scales from prior research were adapted to measure the constructs and modified to fit the context. Some measurement items were newly developed; therefore, EFA was performed to ensure that each item loaded onto the appropriate factor (construct) (Hair et al., 2014). Ten constructs form the conceptual framework of this study, and EFA was used to analyse the interrelationship of all measured items to their respective constructs.

As a preliminary step to EFA, factor analysis with principal axis factoring (PAF) was initially conducted on the 41 items using the unrotated method to explore the factor structure of the measurements. The analysis revealed seven factors that had eigenvalues higher than one, and they explained 59.753% of the total variance (see Table 6-12).

**Table 6-12***Eigenvalues and Extracted Values for Each Factor Loading*

Factor	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of	Cumulative	Total	% of	Cumulative
1	11.120	27.122	27.122	10.741	26.197	26.197
2	4.784	11.669	38.790	4.429	10.802	36.999
3	3.604	8.791	47.581	3.192	7.786	44.785
4	2.727	6.651	54.233	2.359	5.754	50.539
5	1.904	4.644	58.877	1.471	3.587	54.126
6	1.739	4.240	63.117	1.320	3.219	57.344
7	1.373	3.348	66.465	0.988	2.409	59.753
8	.956	2.333	68.798			
9	.864	2.106	70.904			
10	.817	1.992	72.896			
11	.737	1.798	74.694			
12	.707	1.725	76.419			
13	.627	1.530	77.949			
14	.610	1.487	79.436			
15	.554	1.352	80.788			
16	.546	1.332	82.120			
17	.521	1.270	83.390			
18	.482	1.175	84.564			
19	.469	1.143	85.707			
20	.436	1.064	86.772			
21	.418	1.020	87.792			
22	.402	.981	88.772			
23	.377	.921	89.693			
24	.342	.833	90.526			
25	.332	.809	91.335			
26	.327	.797	92.132			
27	.313	.762	92.895			
28	.298	.728	93.623			
29	.282	.689	94.311			
30	.263	.642	94.953			
31	.252	.615	95.568			
32	.246	.601	96.169			
33	.238	.581	96.750			
34	.226	.551	97.301			
35	.205	.500	97.801			
36	.196	.478	98.279			
37	.180	.438	98.717			
38	.162	.396	99.113			
39	.141	.343	99.456			
40	.117	.286	99.742			
41	.106	.258	100.000			

Extraction Method: Principal Axis Factoring.

The dataset was then evaluated to determine the suitability of using EFA (Osborne & Costello, 2005). Several suitability tests were performed, including checking the correlation coefficients and the anti-image correlation matrix and using both Bartlett’s test of sphericity and the Kaiser–Meyer–Olkin measure of sampling adequacy (KMO). The correlation was first checked to ensure that all correlation coefficients exceeded 0.3 (Tabachnick & Fidell, 2013), with a majority meeting that requirement. The diagonal elements of the anti-image correlation matrix were well above the minimum threshold of 0.5, ranging from 0.7 to 0.9 (Field, 2013; Hair et al., 2014). Bartlett’s test of sphericity states that a coefficient is statistically significant at  $p < 0.05$  (Hair et al., 2014; Tabachnick & Fidell, 2013); here, the coefficient was significant at  $p < 0.05$  (approx.  $X^2(820) = 10852.550$ ,  $p = 0.000$ ). A  $KMO > 0.6$  is considered adequate (Hair et al., 2014; Tabachnick & Fidell, 2013), and the KMO correlation of the dataset here was 0.899. The results of these tests, which show that all conditions of data appropriateness were satisfied for EFA, are reported in Table 6-13 below.

**Table 6-13**

*KMO and Bartlett’s Test*

Kaiser–Meyer–Olkin Measure of Sampling Adequacy		0.899
Bartlett’s Test of Sphericity	Approx. Chi-Square	10852.550
	df	820
	Sig.	0.000

Multicollinearity was also examined because it causes problems in factor analysis, making it difficult to determine the unique contribution of variables that are highly correlated to a factor. Multicollinearity occurs when there is a strong correlation between two or more variables (Field, 2013). In practice, some degree of multicollinearity is unavoidable (Field, 2013; Hair et al., 2010); however, Hair et al. (2010) argued that ‘some degree of multicollinearity is desirable, because the objective is to identify interrelated sets of variables’ (p. 103). Multicollinearity can be detected by scanning the correlation matrix of the variables

to detect highly correlated variables (above 0.80 or 0.90) (Field, 2013). This process showed that all values fell below 0.80, indicating no evidence of multicollinearity in this study's data.

Harman's single-factor test, which was performed to examine common method bias in the dataset, runs an EFA with all items loaded onto one common factor. According to this test, an EFA with a total explained variance for a single factor above 50% indicates common methods bias. In our dataset, EFA had already found more than one factor with an eigenvalue greater than 1 (see above discussion), with no single factor accounting for the majority of variance in the variables. This test produced a total variance of 25.561%, indicating no common method bias threat to the data.

After checking the data's suitability for factor analysis, EFA was conducted. The first step was selecting an extraction method. While several such methods are available, Maximum Likelihood is recommended as the most flexible method and best able to cope with different model specifications (De Winter & Dodou 2012). It is also preferred if the researcher does not want to extract more factors because of theoretical considerations supporting the chosen number of factors which is the case in this study (De Winter & Dodou 2012). Therefore, Maximum Likelihood was chosen as the most suitable factor extraction method for the dataset. The next step was determining how many factors to extract and analyse. Thompson (2004) argued that the purpose of EFA is to isolate factors that are interpretable; hence, any thoughtful analytic choices that yield clear factors are justified. In addition, Osborne et al (2014) and Revelle and Rocklin (1979) suggested using the theoretical framework to determine the number of factors to extract in the EFA. Therefore, the number of factors to extract was interpreted according to the theoretical framework of the study. Choosing a rotation method was the next step. The two common rotation methods are orthogonal (varimax and equimax) and oblique (oblimin and promax). The main difference between the two methods is that oblique rotations allow correlated factors instead of maintaining independence between the rotated factors (Hair

et al., 2014). Field (2013) found strong evidence that orthogonal rotations are not appropriate for naturalistic data, especially any data involving humans. Therefore, the direct promax oblique rotation method was selected because it allows a degree of correlation between the factors, which is consistent with social science research (Field, 2013).

Factor loadings should also be examined for all variables. A factor loading measures how much the variable contributes to a factor; thus, high factor loading scores indicate that the dimensions of the factors are better accounted for by the variables (Yong & Pearce, 2013). In this study, practical significance was used as the criterion to assess the loadings (Hair et al., 2014). Factor loadings in the range of  $\pm 0.30$  to  $\pm 0.40$  were considered the minimal acceptable value, while loadings  $\pm 0.50$  or greater were considered practically significant (Hair et al., 2010). Notably, sample size plays an important role in factor loading (Hair et al., 2010). Hair et al. (2010) provided guidelines for identifying significant factor loadings based on sample size, where a loading of 0.30 is considered significant for sample sizes of 350 or greater. Therefore,  $\pm 0.30$  was used as the threshold for this study. In addition, the communality of each variable was used to examine the results. The variable's communality represents the amount of variance accounted for by the factor solution for each variable (Hair et al., 2010). Hair et al. (2010) suggested that variables should have communalities greater than 0.50 to be retained in the analysis, although a 0.3 cut-off value of communality was also found acceptable (Pallant, 2013; Tabachnick & Fidell, 2013), and it is advisable to remove any item with a communality score of less than 0.2 (Child, 2006). The next section provides the results of the exploratory factor analysis.

#### **6.4.1.1 Exploratory Factor Analysis Results**

As discussed above, EFA was conducted using Maximum Likelihood; it was rotated using the promax method, and Kaiser normalization was performed for an oblique solution (Fabrigar et al., 1999; Field, 2013; Hair et al., 2010). A factor loading of 0.30 is considered

significant and was thus used as the threshold for the analysis (Field, 2013; Hair et al., 2010). The acceptable communality value was 0.2 and above (Child, 2006; Hair et al., 2010; Pallant, 2013; Tabachnick & Fidell, 2013). The EFA analysis was performed using dataset of 400 cases.

EFA was conducted on three sets of variables instead of all the variables at the same time (Hair et al., 2014; Hair et al., 2015). Hair et al. (2014) indicated that it is the researcher's responsibility to ensure that the observed patterns are conceptually valid and appropriate for the factor analysis, given that the technique has no means of determining appropriateness other than the correlations among variables: 'For example, mixing dependent and independent variables in a single factor analysis and then using the derived factors to support dependence relationships is inappropriate' (p. 101). Accordingly, it was appropriate to divide the 41 variables into three sets of variables as follows: (a) those that measure social relationships (e.g., antecedents), (b) those that measure engagement (e.g., behaviour) and (c) those that measure customer brand relationships (e.g., outcomes). This helps avoid using a confusing mix of antecedents, consequences and behaviours when running the analysis. For example, it makes no sense to run EFA on variables that are expected to be antecedents with variables that are expected to be consequences. In this study, the main purpose of running EFA was to explore whether rotated factor patterns would emerge that matched our theoretical expectations. Therefore, dividing the variables into three categories was deemed appropriate. The following section discusses the results of the EFA for the variables.

#### **6.4.1.1.1 Exploratory Factor Analysis of Social Relationship Factors**

The EFA of the social relationship variable measures indicated that homophily, susceptibility to informational influence, trust and tie strength are four separate constructs. The factor matrix indicated that all the items loaded on the expected factor had values above 0.4, with factor loadings ranging from 0.416 to 0.930. All the items had communalities above 0.2, with the lowest being 0.271.

The first factor identified comprised four items measuring homophily. These items were adapted from McCroskey et al. (1975) to measure the degree to which individuals who interact with one another are similar regarding certain attributes or shared beliefs, values, experiences and lifestyles (Gilly et al., 1998; Rogers & Bhowmik, 1970). This factor had a Cronbach's alpha of 0.862, indicating good reliability (Hair et al., 2014).

The second factor comprised four items measuring susceptibility to informational influence. These items were developed by Bearden et al. (1989) to measure a consumer's level of susceptibility to informational influence within Twitter. This factor showed an appropriate level of reliability, with a Cronbach's alpha of 0.839.

The third factor comprised four items to measure trust within social networking sites (Fukuyama, 1995). The items were developed from Chu and Kim (2011), Lin (2006), Mortenson (2009) and Smith et al. (2005). This scale also showed an appropriate level of reliability, with a Cronbach's alpha of 0.763.

Tie strength comprised three items to measure the potency of the bond between Twitter users (Mittal et al., 2008). These items were adapted from Brown and Reingen (1987), Chu and Kim (2011), Norman and Russell (2006) and Reingen and Kernan (1986). The three items measured the types of social relationships, frequency of communication and the importance of and closeness attached to the social relationship. The Cronbach's alpha for this scale was 0.711, indicating an acceptable level of reliability. Results of the EFA for the social relationship variables are presented in Table 6-14.

**Table 6-14***The Results of EFA for The Social Relationship Variables*

<b>Pattern Matrix<sup>a</sup></b>					<b>Communality</b>	<b>Cronbach alpha</b>
	<b>Factor</b>					
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>		
	<b>Homophily</b>	<b>Susceptibility to Informational Influence</b>	<b>Trust</b>	<b>Tie Strength</b>		
Don't think like me	0.863				0.491	0.862
Don't behave like me	0.799				0.639	
Are different from me	0.772				0.728	
Are unlike me	0.691				0.616	
To ensure that I buy the right product or service, I observe what others are buying and using.		0.505			0.271	0.839
If I have little experience with a product or service, I ask my friends about the product or service		0.873			0.762	
I consult with other people to help choose the best alternative available from similar products and services		0.876			0.750	
I gather information from friends or family about a product or service before I buy it.		0.815			0.669	
I trust most of the Twitter users I follow			0.664		0.445	0.763
I feel confident about having discussions with the Twitter users I follow			0.535		0.301	

**Table 6-14***The Results of EFA for The Social Relationship Variables*

<b>Pattern Matrix<sup>a</sup></b>					<b>Communality</b>	<b>Cronbach alpha</b>
	<b>Factor</b>					
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>		
	<b>Homophily</b>	<b>Susceptibility to Informational Influence</b>	<b>Trust</b>	<b>Tie Strength</b>		
The Twitter users I follow will do everything within their capacity to help others.			0.753		0.529	
The Twitter users I follow offer honest opinions.			0.749		0.563	
How frequently you communicate via direct messages, replies, or mentions etc with the Twitter users you follow?				0.529	0.313	.711
How close you feel to the Twitter users you follow?				0.930	0.999	
How important the Twitter users you follow are to you?				0.416	0.378	
Eigenvalue	1.895	2.769	22.341	1.448		
% of variance	12.634	18.463	15.605	9.655		
Extraction Method: Maximum Likelihood.						
Rotation Method: Promax with Kaiser Normalization.						
a. Rotation converged in 5 iterations.						

#### **6.4.1.1.2 Exploratory Factor Analysis of Customer Engagement Behaviour Factors**

EFA was conducted to explore whether the three conceptualized dimensions of CEB would emerge empirically. The EFA results confirmed the existence of three dimensions of CEB. This was consistent with the conceptualisation of the CEB constructs in this study. The factor matrix indicated that all the loaded items had values above 0.4, with factor loadings ranging from 0.482 to 0.899. All the items had communalities above 0.2, with the lowest being 0.367.

The first factor generated the sharing dimension, which comprised eight items. Three items were from Dessart et al.'s (2016) scale, two items were from Schivinski et al. (2016) and one item was developed to measure retweeting behaviour. In addition, two items emerged from the endorsing scale ('I say positive things about the brand to other people on Twitter' and 'I "like" posts related to the brand on Twitter'). These items were loaded in sharing behaviour, which is justified: when Twitter users say positive things about a brand to other people on Twitter, they intend to share their experiences about the brand. In addition, the 'like' function on Twitter signals that a user likes a tweet because they find it interesting and useful or it is something they enjoy or with which they agree. When a user likes a tweet, the tweet's author will be notified, and it will also appear in the feed of the user's followers. Therefore, liking can be used to share content with followers. Given these results, it was determined that these eight items measured the behaviour of posting and/or reposting brand-related content, information, experiences and/or ideas from a firm and/or its consumers. The Cronbach's alpha for this factor was .926, indicating an acceptable level of reliability.

The second factor represented the learning dimension and included five items, as expected. These items measure the behaviour of seeking and/or viewing brand-related content, information, experiences and/or ideas from a firm and/or its other consumers. The five items

were adopted and modified from Dessart et al. (2016) and Schivinski et al. (2016). The Cronbach's alpha for this scale was 0.829, indicating an acceptable level of reliability.

The third factor generated the dimension of endorsing and included three items. The scale of endorsing behaviour was adapted from Dessart et al. (2016). These three items cluster together, as expected. The items measure the behaviour of showing support for brand-related content, information, experiences and/or ideas from a firm and/or its other consumers. The Cronbach's alpha for this scale was 0.903, indicating an acceptable level of reliability. The results of the EFA for the CEB construct are presented in Table 6-15.

**Table 6-15**

*The Results of the EFA for the Customer Engagement Behaviour*

Pattern Matrix <sup>a</sup>				Communality	Cronbach alpha
	Factor				
	1	2	3		
	Sharing	Learning	Endorsing		
I say positive things about the brand to other people on Twitter.	0.600			0.619	0.926
I 'like' posts related to the brand on Twitter.	0.626			0.441	
I share my ideas about the brand on Twitter.	0.846			0.666	
I share interesting content about the brand on Twitter.	0.776			0.649	
I help others about the brand on Twitter.	0.829			0.669	
I comment on posts related to the brand on Twitter.	0.829			0.711	
I initiate posts related to the brand on Twitter	0.776			0.640	
I retweet posts related to the brand on Twitter	0.678			0.558	

**Table 6-15***The Results of the EFA for the Customer Engagement Behaviour*

I ask questions on Twitter about the brand.		0.528		0.409	0.829
I seek ideas or information from Twitter users about the brand		0.895		0.734	
I seek help from Twitter users about the brand.		0.759		0.608	
I read posts related to the brand on Twitter.		0.722		0.484	
I look at pictures/graphs/video related to brand on Twitter		0.530		0.367	
I promote the brand on Twitter.			0.788	0.775	0.903
I try to get others interested in the brand on Twitter.			0.899	0.909	
I actively defend the brand from its critics on Twitter.			0.482	0.680	
Eigenvalue	7.360	1.744	0.813		
% of variance	45.998	10.903	5.083		

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

**6.4.1.1.3 Exploratory Factor Analysis of Customer–Brand Relationship Factors**

An EFA of 10 items was conducted, with the results finding a three-factor structure, including 10 items with factor loadings greater than 0.5. All the items had communalities above 0.2, with the lowest being 0.608.

The first factor included four items that were drawn from Chaudhuri and Holbrook (2001) to measure brand trust. The four-item index measured all the important facets of trust, including beliefs about reliability, safety and honesty that people incorporate in their brand

regarding trust. The Cronbach’s alpha for the brand scale was 0.896, indicating an acceptable level of reliability. The second factor included three items that were drawn from Zhang et al. (2016) to measure brand loyalty. The three-item index measured the extent to which consumers will repurchase products from their nominated brand and recommend those products and/or the brand to their friends (Zhang et al., 2016). The Cronbach’s alpha for this scale was 0.901, indicating an acceptable level of reliability. The third factor included three items that were drawn from El- Manstrly and Harrison (2013) to measure brand commitment. These items reflect the consumer’s desire to maintain a valued relationship with a brand (Dessart, 2017; Morgan & Hunt, 1994). The Cronbach’s alpha for this scale was 0.885, indicating an acceptable level of reliability. Table 6-16 shows the results of the EFA for Customer–Brand Relationship Factors.

**Table 6-16**

*The Results of the EFA for Customer–Brand Relationship Factors*

<b>Pattern Matrix<sup>a</sup></b>				<b>Communality</b>	<b>Cronbach alpha</b>
	<b>Factor</b>				
	<b>1</b>	<b>2</b>	<b>3</b>		
	<b>Brand Trust</b>	<b>Brand Loyalty</b>	<b>Brand Commitment</b>		
I trust this brand	0.700			0.642	0.896
I rely on this brand	0.672			0.608	
This is an honest brand	0.903			0.787	
This brand is safe	0.611			0.755	
I will buy products of the brand next time.		0.802		0.869	0.901
I intend to keep purchasing products from the brand.		0.902		0.857	
I will recommend the brand to others.		0.514		0.611	

**Table 6-16***The Results of the EFA for Customer–Brand Relationship Factors*

<b>Pattern Matrix<sup>a</sup></b>				<b>Communality</b>	<b>Cronbach alpha</b>
	<b>Factor</b>				
	<b>1</b>	<b>2</b>	<b>3</b>		
	<b>Brand Trust</b>	<b>Brand Loyalty</b>	<b>Brand Commitment</b>		
I have grown to like this brand more than others offering the same product/service			0.623	0.635	0.885
I like the products/services offered by this brand			0.835	0.831	
This brand is the one whose product (goods & services) I enjoy using most			0.645	0.722	
Eigenvalue	6.488	0.503	0.300		
% of variance	64.878	5.295	3.003		
Extraction Method: Maximum Likelihood..					
Rotation Method: Promax with Kaiser Normalization.					

a. Rotation converged in 7 iterations.

#### **6.4.2 Confirmatory Factor Analysis**

Following exploratory factor analysis (EFA), confirmatory factor analysis (CFA) was performed to verify the structure of the scale. CFA, which is recommended before executing structural equation modelling (SEM), enables the researcher to test how well the measured variables represent the constructs (Hair et al., 2014). CFA determines whether the data fit the priori hypothesised model and the extent to which the priori hypothesised model represents the data (Hair et al., 2014; Netemeyer et al., 2003). As discussed in the previous chapter, reporting a variety of indices is necessary to evaluate a model (Crowley & Fan, 1997; Hair et al., 2014). Therefore, three model fit categories are used to evaluate fitness: absolute fit, incremental fit

and parsimonious fit. Each category includes several fitness indices that can reflect the model's current fitness. Based on discussion in the previous chapter and consideration of both the sample size and the model complexity of the current study, the CMIN, its DF and p value, the RMSEA, the CFI and the value of the CMIN/DF have been chosen over other indices for this research. This combination consists of one absolute fit index (e.g., the GFI, the RMSEA, or the SRMR), one incremental fit index (e.g., the CFI or the NNFI), one GFI (e.g., the CFI, the NNFI, etc.) and one badness-of-fit index (e.g., the RMSEA or the SRMR). This combination of fit indices is considered suitable to evaluate the model in this research, which comprises 41 measurement items, with a sample size of 400 cases (Hair et al., 2014). The next section provides the results of the confirmatory factor analysis.

#### **6.4.2.1 Confirmatory Factor Analysis Results**

CFA was used to confirm the measurement models. A measurement model specifies how the measured variables represent the constructs involved in a theoretical model (Hair et al., 2014). In this study, the measurement models were confirmed via two stages using the CFA approach: stage one examined all the factors that emerged from the EFA, while stage two involved examining the full measurement model. In stage one, the factors that emerged from the EFA were confirmed using CFA. According to the theoretical framework of the study and the results of the EFA, CFA was conducted via three models: (a) the four latent factors that were identified as social relationships factors, (b) the three latent factors that were identified as customer engagement behaviour factors and (c) the three latent factors that were identified as customer-brand relationship factors. The following section presents the results of the CFA for the three models.

#### **6.4.2.1.1 The Measurement Model for the Social Relationship Factors**

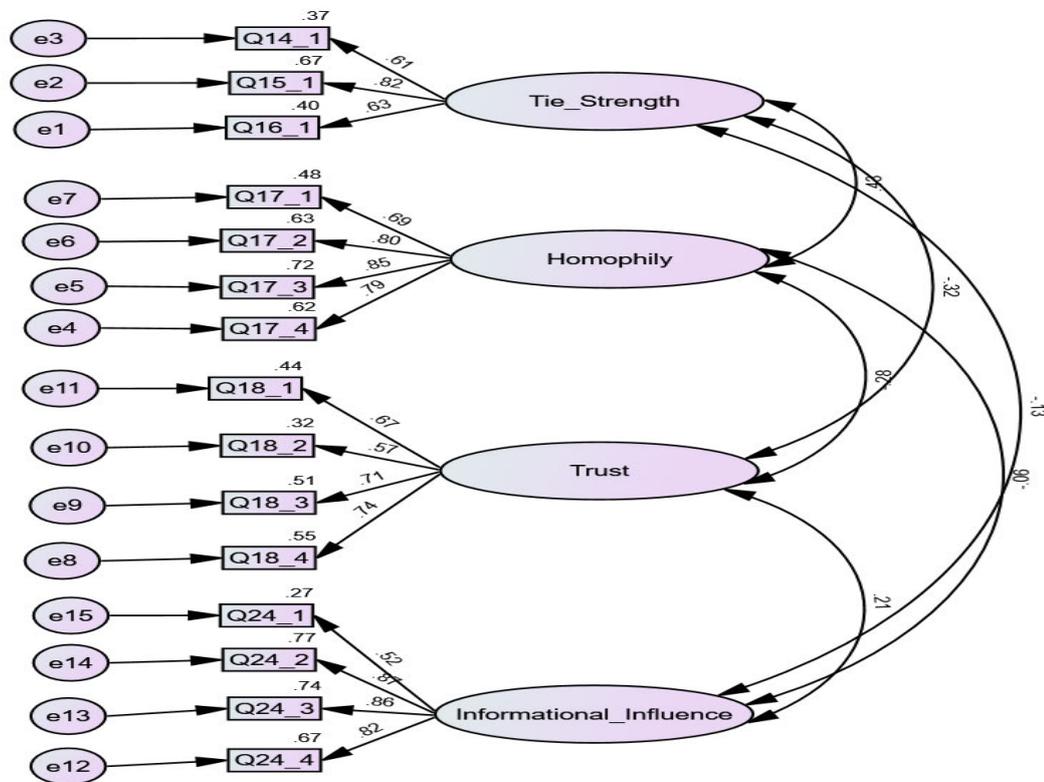
The fit results for the model indicated the following: chi-square = 166.835,  $p = 0.000$ ,  $\chi^2/df = 2.221$ ; SRMR = 0.0494; RMSEA = 0.055; NFI = 0.924; GFI = 0.941; AGFI = 0.916; CFI = 0.956 and TLI = 0.945. Factor loadings were significant ( $p < 0.001$ ) and were between 0.517 and 0.875. As argued earlier in the CFA section, the chi-square statistic, its degrees of freedom and  $p$  value, the RMSEA, the CFI and the value of CMIN/DF were chosen after considering the sample size and model complexity of the current study (Hair et al., 2014). Therefore, the model demonstrated good fit (chi-square = 166.835,  $p = 0.000$ ;  $\chi^2/df = 2.221$ ; RMSEA = 0.055 and CFI = 0.956). However, the  $p$ -value of the chi-square was statistically significant ( $p < 0.05$ ), which was expected and acceptable in a model that consists of 15 measurement items with a sample size of 400 cases (Hair et al., 2014). Thus, it was not considered the most suitable model fit indices for this sample, which includes large and multivariate non-normal data (Hu et al., 1992; Nevitt & Hancock, 2001; Schumacker & Lomax, 2004). In addition, the factor loading results of a couple items were below 0.6, and the squared multiple correlation results of a couple items were lower than 0.4. It was decided to keep these items because the fitness indices for that measurement model had already achieved the required level, according to Awang (2012). The measurement model and the CFA results for the social relationships factors are presented in Figure 6-1 and Table 6-17.

**Table 6-17***CFA for the Social Relationship Factors*

<b>Item No</b>	<b>Construct / Item.</b>	<b>Standardised Factor Loadings (SFL)</b>	<b>Squared Multiple Correlation (SMC)</b>
<b>Tie Strength</b>			
Q14_1	How frequently you communicate via direct messages, replies, or mentions etc with the Twitter users you follow?	0.610	0.372
Q15_1	How close you feel to the Twitter users you follow?	0.821	0.673
Q16_1	How important the Twitter users you follow are to you?	0.629	0.395
<b>Homophily</b>			
Q17_1	Don't think like me	0.690	0.476
Q17_2	Don't behave like me	0.796	0.634
Q17_3	Are different from me	0.850	0.723
Q17_4	Are unlike me	0.790	0.624
<b>Trust</b>			
Q18_1	I trust most of the Twitter users I follow	0.667	0.444
Q18_2	I feel confident about having discussions with the Twitter users I follow	0.565	0.319
Q18_3	The Twitter users I follow will do everything within their capacity to help others.	0.711	0.509
Q18_4	The Twitter users I follow offer honest opinions.	0.745	0.555
<b>Susceptibility to Informational Influence</b>			
Q24_1	To ensure that I buy the right product or service, I observe what others are buying and using.	0.517	0.267
Q24_2	If I have little experience with a product or service, I ask my friends about the product or service	0.875	0.765
Q24_3	I consult with other people to help choose the best alternative available from similar products and services	0.861	0.742
Q24_4	I gather information from friends or family about a product or service before I buy it.	0.816	0.666

**Figure 6-1**

*The Measurement Model for the Social Relationship Factors*



#### 6.4.2.1.2 The Measurement Model for the Customer Engagement Behaviour Factors

The initial analysis of the CFA model showed the following indices: chi-square = 445.889,  $p = 0.000$ ;  $\chi^2/df = 4.415$ ; SRMR = 0.0625; RMSEA = 0.093; NFI = 0.899; GFI = 0.880; AGFI = 0.839; CFI = 0.919 and TLI = 0.904. After adding three pairs of correlated error terms to the model, the CFA model improved and demonstrated the following: chi-square = 303.309,  $p = 0.000$ ;  $\chi^2/df = 3.095$ ; SRMR = 0.0607; RMSEA = 0.072; NFI = 0.931; GFI = 0.915; AGFI = 0.882; CFI = 0.952 and TLI = 0.941. Factor loadings were significant ( $p < 0.001$ ) and were between 0.597 and 0.935. Therefore, the model demonstrated acceptable fit. Factor loadings were significant ( $p < 0.001$ ) and were between 0.518 and 0.879. The p-value of chi-square was statistically significant ( $p < 0.05$ ), which was expected and acceptable given the complexity of the model and the large sample size (Hair et al., 2014). In addition, the factor

loading result of one item was below 0.6, and the squared multiple correlation result of this item was lower than 0.4. However, this item was kept because the fitness indices for that measurement model had already achieved the required level, According to Awang (2012). The measurement model and the CFA results for the customer engagement behaviour factors are presented in Figure 6-2 and Table 6-18.

**Table 6-18**

*CFA for the Customer Engagement Behaviour Factors*

<b>Item No.</b>	<b>Construct / Item.</b>	<b>Standardised Factor Loadings (SFL)</b>	<b>Squared Multiple Correlation (SMC)</b>
<b>Learning</b>			
Q22_1	I ask questions on Twitter about the brand.	0.643	0.413
Q22_2	I seek ideas or information from Twitter users about the brand	0.836	0.699
Q22_3	I seek help from Twitter users about the brand.	0.808	0.653
Q22_4	I read posts related to the brand on Twitter.	0.636	0.401
Q22_5	I look at pictures/graphs/video related to brand on Twitter	0.518	0.269
<b>Endorsing</b>			
Q22_6	I promote the brand on Twitter.	0.786	0.681
Q22_7	I try to get others interested in the brand on Twitter.	0.850	0.723
Q22_8	I actively defend the brand from its critics on Twitter.	0.879	0.772
<b>Sharing</b>			
Q22_9	I say positive things about the brand to other people on Twitter.	0.800	0.636
Q22_10	I 'like' posts related to the brand on Twitter.	0.665	0.442
Q22_11	I share my ideas about the brand on Twitter.	0.803	0.645
Q22_12	I share interesting content about the brand on Twitter.	0.811	0.645

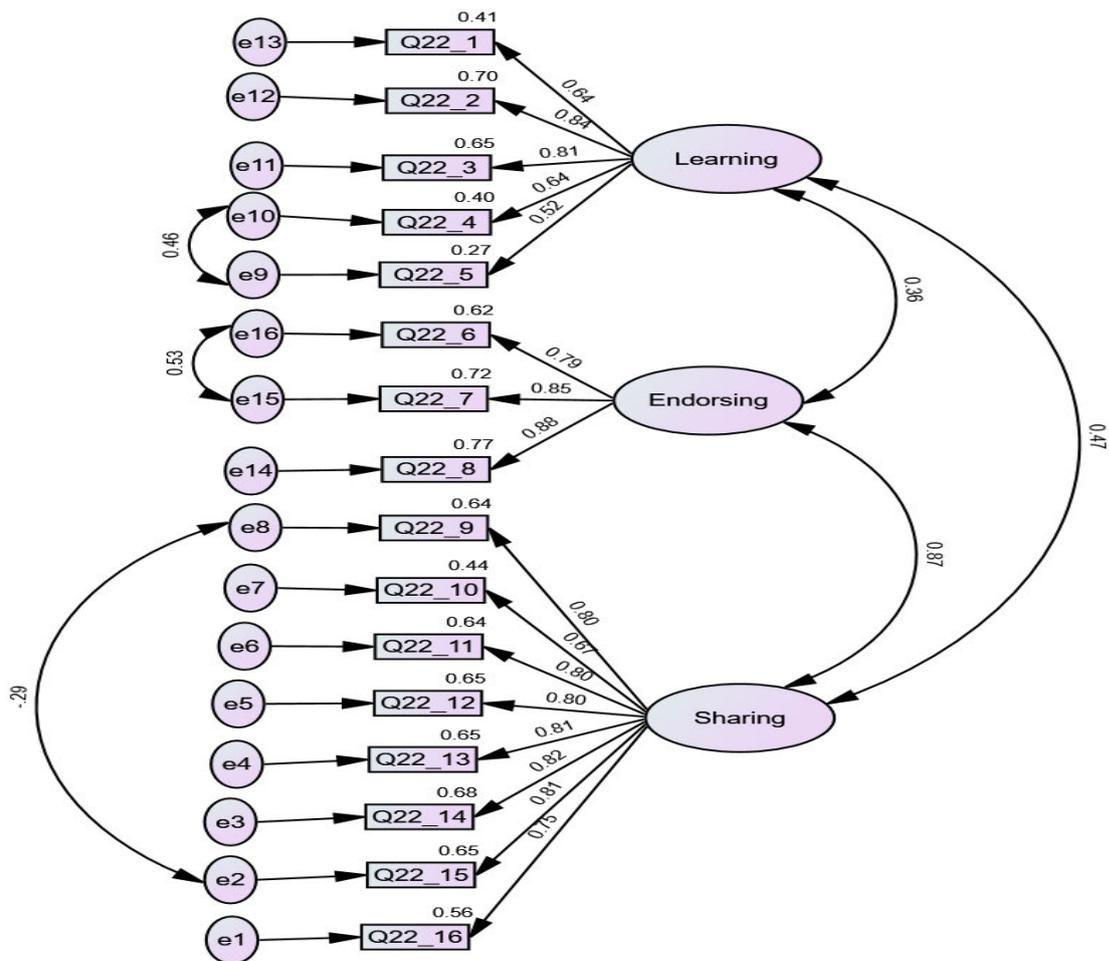
**Table 6-18**

*CFA for the Customer Engagement Behaviour Factors*

Item No.	Construct / Item.	Standardised Factor Loadings (SFL)	Squared Multiple Correlation (SMC)
Q22_13	I help others about the brand on Twitter.	0.807	0.651
Q22_14	I comment on posts related to the brand on Twitter.	0.824	0.680
Q22_15	I initiate posts related to the brand on Twitter	0.809	0.655
Q22_16	I retweet posts related to the brand on Twitter	0.748	0.559

**Figure 6-2**

*The Measurement Model for the Customer Engagement Behaviour Factors*



#### **6.4.2.1.3 The Measurement Model for the Customer–Brand Relationship Factors**

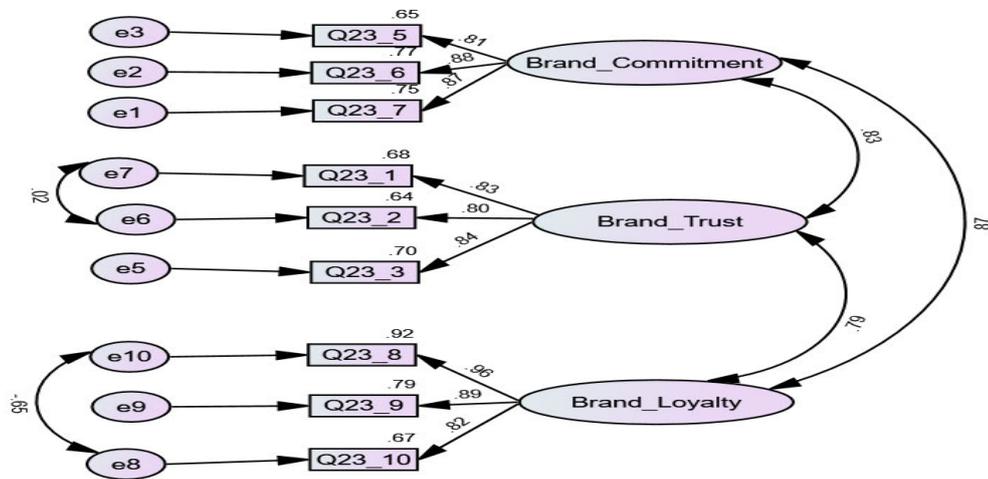
The initial analysis of the CFA model showed the following indices: chi-square = 168.339,  $p = 0.000$ ;  $\chi^2/df = 5.261$ ; SRMR = 0.0356; RMSEA = 0.103; NFI = 0.951; GFI = 0.926; AGFI = 0.872; CFI = 0.960 and TLI = 0.943. Factor loadings were significant ( $p < 0.001$ ) and were between 0.769 and 0.934. To improve the fit, several attempts were made to modify the model. The analysis of modification indices indicated that item 4 (Q23\_4) was suspectable, and the removal of this item could slightly improve the model fit. Adding two pairs of correlated-error terms to the model also improved the CFA model. As a result, the model achieved an acceptable fit: chi-square = 77.697,  $p = 0.000$ ;  $\chi^2/df = 3.532$ ; SRMR = 0.0250; RMSEA = 0.080; NFI = 0.974; GFI = 0.961; AGFI = 0.920; CFI = 0.981 and TLI = 0.969. Factor loadings were significant ( $p < 0.001$ ) and were between 0.803 and 0.961. The measurement model and the CFA results for the customer–brand relationship factors are presented in Figure 6-3 and Table 6-19.

**Table 6-19***CFA for the Customer–Brand Relationship Factors*

<b>Item No</b>	<b>Construct/ Item</b>	<b>Standardised Factor Loadings (SFL)</b>	<b>Squared Multiple Correlation (SMC)</b>
<b>Brand Trust</b>			
Q23_1	I trust this brand	0.826	0.682
Q23_2	I rely on this brand	0.803	0.645
Q23_3	This is an honest brand	0.837	0.700
Q23_4	This brand is safe	Item was dropped	
<b>Brand Commitment</b>			
Q23_5	I have grown to like this brand more than others offering the same product/service	0.806	0.650
Q23_6	I like the products/services offered by this brand	0.877	0.769
Q23_7	This brand is the one whose product (goods & services) I enjoy using most	0.867	0.753
<b>Brand Loyalty</b>			
Q23_8	I will buy products of the brand next time	0.961	0.924
Q23_9	I intend to keep purchasing products from the brand	0.889	0.790
Q23_10	I will recommend the brand to others	0.821	0.674

**Figure 6-3**

*The Measurement Model for the Customer–Brand Relationship Factors*



#### 6.4.2.1.4 The Full Measurement Model

The second stage of the CFA involved examining the full measurement model of all the constructs. An analysis of the CFA for the full measurement model produced the following data model fit results: chi-square = 1484.838,  $p = 0.000$ ;  $\chi^2/df = 2.136$ ; SRMR = 0.055; RMSEA = 0.053; NFI = 0.862; GFI = 0.844; AGFI = 0.816; CFI = 0.921 and TLI = 0.911. Factor loadings were significant ( $p < 0.001$ ) and were between 0.522 and 0.932.

As argued earlier in this section, the chi-square statistic, its degrees of freedom and  $p$  value, the RMSEA, the CFI and the value of CMIN/DF were chosen after considering the sample size and model complexity of the current study (Hair et al., 2014). Therefore, the model demonstrated good fit (chi-square = 1484.838,  $p = 0.000$ ;  $\chi^2/df = 2.136$ ; RMSEA = 0.053 and CFI = 0.921). The  $p$ -value of chi-square was statistically significant ( $p < 0.05$ ), which was expected and acceptable in a model that consists of 41 measurement items with a sample size

of 400 cases (Hair et al., 2014). Thus, it was not considered the most suitable model fit indices for this sample, which considers large and multivariate non-normal data (Hu et al., 1992; Nevitt & Hancock, 2001; Schumacker & Lomax, 2004). In addition, the factor loading result of one item was below 0.6, and the squared multiple correlation result of this item was lower than 0.4. However, it was decided to keep this item because the fitness indices for that measurement model had already achieved the required level, Awang (2012). The measurement model and the CFA results for full measurement model are presented in Figure 6-4 and Table 6-20.

**Table 6-20**

*The CFA Results for Full Measurement Model*

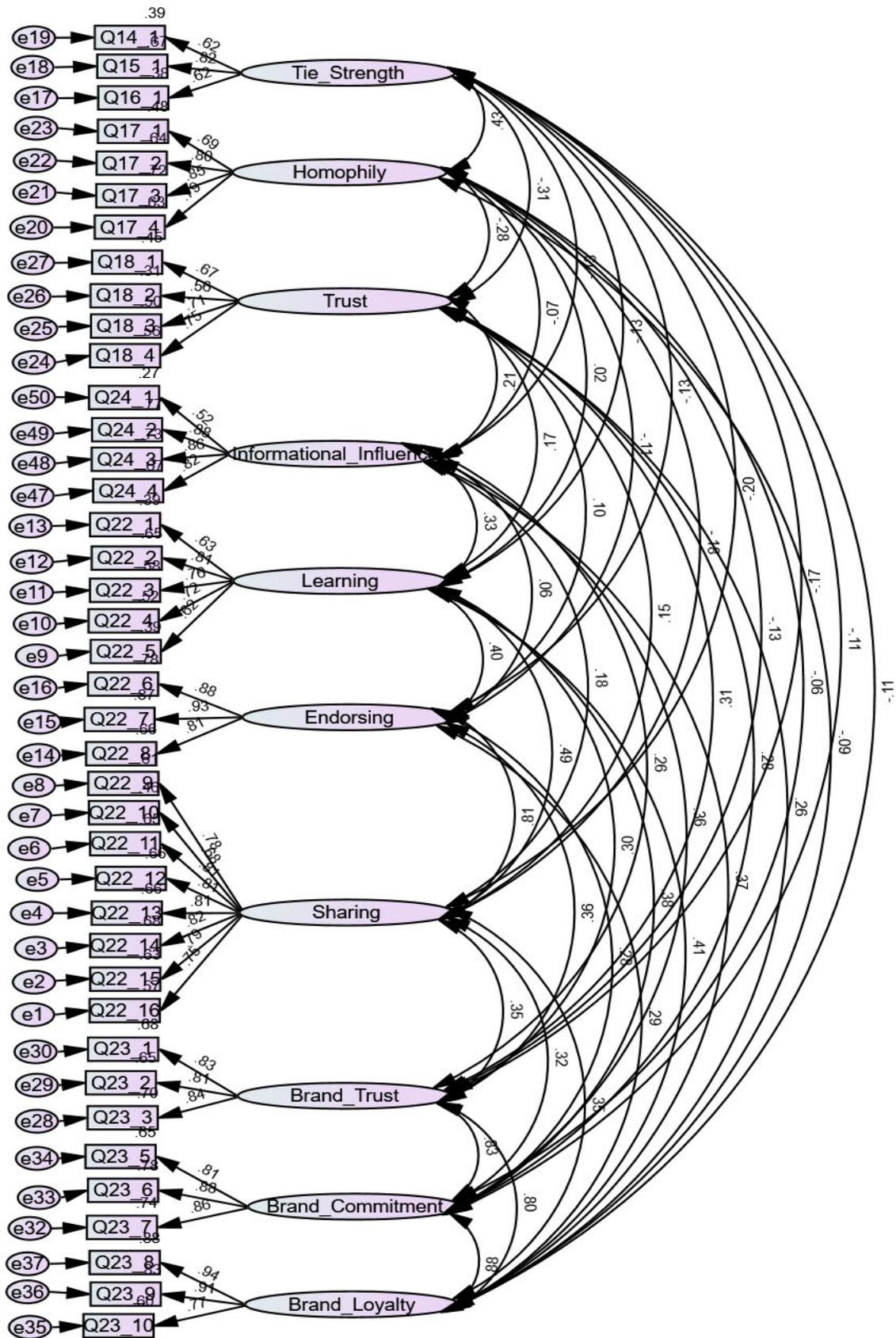
Item No	Construct/ Item	SFL	SMC
<b>Tie Strength</b>			
Q14_1	How frequently you communicate via direct messages, replies, or mentions etc with the Twitter users you follow?	0.621	0.386
Q15_1	How close you feel to the Twitter users you follow?	0.819	0.672
Q16_1	How important the Twitter users you follow are to you?	0.619	0.383
<b>Homophily</b>			
Q17_1	Don't think like me	0.690	0.476
Q17_2	Don't behave like me	0.797	0.635
Q17_3	Are different from me	0.848	0.718
Q17_4	Are unlike me	0.792	0.628
<b>Trust</b>			
Q18_1	I trust most of the Twitter users I follow	0.668	0.446
Q18_2	I feel confident about having discussions with the Twitter users I follow	0.560	0.314
Q18_3	The Twitter users I follow will do everything within their capacity to help others.	0.706	0.498
Q18_4	The Twitter users I follow offer honest opinions.	0.752	0.565
<b>Informational Influence</b>			
Q24_1	To ensure that I buy the right product or service, I observe what others are buying and using.	0.522	0.272
Q24_2	If I have little experience with a product or service, I ask my friends about the product or service	0.878	0.770
Q24_3	I consult with other people to help choose the best alternative available from similar products and services	0.855	0.731
Q24_4	I gather information from friends or family about a product or service before I buy it.	0.818	0.668
<b>Learning</b>			
Q22_1	I ask questions on Twitter about the brand.	0.628	0.395
Q22_2	I seek ideas or information from Twitter users about the brand	0.805	0.648

**Table 6-20***The CFA Results for Full Measurement Model*

<b>Item No</b>	<b>Construct/ Item</b>	<b>SFL</b>	<b>SMC</b>
Q22_3	I seek help from Twitter users about the brand.	0.763	0.582
Q22_4	I read posts related to the brand on Twitter.	0.720	0.518
Q22_5	I look at pictures/graphs/video related to brand on Twitter	0.621	0.386
<b>Endorsing</b>			
Q22_6	I promote the brand on Twitter.	0.883	0.779
Q22_7	I try to get others interested in the brand on Twitter.	0.932	0.869
Q22_8	I actively defend the brand from its critics on Twitter.	0.813	0.661
<b>Sharing</b>			
Q22_9	I say positive things about the brand to other people on Twitter.	0.781	0.610
Q22_10	I 'like' posts related to the brand on Twitter.	0.677	0.459
Q22_11	I share my ideas about the brand on Twitter.	0.807	0.651
Q22_12	I share interesting content about the brand on Twitter.	0.810	0.657
Q22_13	I help others about the brand on Twitter.	0.811	0.657
Q22_14	I comment on posts related to the brand on Twitter.	0.824	0.680
Q22_15	I initiate posts related to the brand on Twitter	0.791	0.626
Q22_16	I retweet posts related to the brand on Twitter	0.752	0.565
<b>Brand Trust</b>			
Q23_1	I trust this brand	0.826	0.682
Q23_2	I rely on this brand	0.805	0.648
Q23_3	This is an honest brand	0.838	0.703
<b>Brand commitment</b>			
Q23_5	I have grown to like this brand more than others offering the same product/service	0.807	0.650
Q23_6	I like the products/services offered by this brand	0.882	0.778
Q23_7	This brand is the one whose product (goods & services) I enjoy using most	0.862	0.744
<b>Brand Loyalty</b>			
Q23_8	I will buy products of the brand next time	0.936	0.876
Q23_9	I intend to keep purchasing products from the brand	0.909	0.825
Q23_10	I will recommend the brand to others	0.772	0.596

**Figure 6-4**

*The Full Measurement Model*



### **6.4.3 Assessment of the Validity and Reliability of the Measurement Model**

After the full measurement confirmation, the assessment of validity and reliability for full measurement models is required before modelling the structural model (Awang, 2012; Hair et al., 2014). Therefore, the scales were evaluated for reliability and validity to define how well the scales represented the constructs. The following sections establish both reliability and validity for the measurement model.

#### **6.4.3.1 Construct Reliability Assessment**

Reliability reflects the degree of consistency between multiple measurements of a variable (Hair et al., 2010). Cronbach's alpha is the most widely used measure to assess the consistency of the entire scale. The acceptable value for Cronbach's alpha is 0.7 or higher (Hair et al., 2010). Kline (2015) considered reliability coefficients around 0.9 'excellent', around 0.7 'acceptable' and lower than 0.7 'poor'. Cronbach's alpha was calculated for all the constructs for the main sample (N = 400) after the CFA procedure, where all the constructs achieved an acceptable level ( $\alpha > 0.7$ ). All constructs showed an acceptable level of Cronbach's alpha, which indicated strong internal consistency.

In addition, the composite reliability (CR) test, which was derived from CFA, measures the reliability and internal consistency of the measured variables representing a latent construct (Hair et al., 2010). The CR should be 0.7 or higher to indicate good reliability, meaning that the measures all consistently represent the same latent construct (Hair et al., 2010). The CR was checked for all constructs, and all CR values were higher than 0.7, ranging between 0.731 and 0.927. Table 6-21 presents the Cronbach's alpha and CR values for all constructs.

**Table 6-21***Reliability Tests*

Construct	No of Items	1	2	3	4	5	6	7	8	9	10	$\alpha$	CR
1.Tie Strength	3	1										0.71	0.73
2.Homophily	3	0.43***	1									0.86	0.86
3.Trust	4	-0.31***	-0.28***	1								0.76	0.77
4.Informational Influence	4	-0.13*	-0.1	0.21***	1							0.84	0.86
5.Learning	5	-0.13*	0.02	0.17**	0.33***	1						0.83	0.84
6.Endorsing	3	-0.13*	-0.11*	0.10†	0.07	0.40***	1					0.90	0.91
7.Sharing	8	-0.20***	-0.18**	0.16**	0.18***	0.49***	0.81***	1				0.93	0.93
8.Brand Trust	3	-0.17**	-0.10*	0.31***	0.26***	0.30***	0.36***	0.35***	1			0.86	0.86
9.Brand Commitment	3	-0.11†	-0.06	0.28***	0.36***	0.38***	0.28***	0.32***	0.83***	1		0.89	0.89
10.Brand Loyalty	3	-0.11†	-0.09†	0.27***	0.37***	0.41***	0.29	0.35***	0.80***	0.88***	1	0.90	0.91

†  $p < 0.100$ , \*  $p < 0.050$ , \*\*  $p < 0.010$ , \*\*\*  $p < 0.001$  (two-tailed t-test), CR: the composite reliability,  $\alpha$ : the Cronbach's alpha

### 6.4.3.2 Construct Validity Assessment

Convergent validity is the extent to which two measures of the same concept are correlated (i.e., it confirms that the scale is correlated with other known measures of the concept) (Hair et al., 2014). Convergent validity is assessed by checking the factor loadings and calculating the average variance extracted (AVE) and the CR. In general, to indicate adequate convergent validity, factor loading estimates should be 0.5 or higher; the AVE should be 0.5 or higher; and the CR should be 0.7 or higher. Based on the evaluation of the factor loadings, all values were higher than 0.5 (see Table 6-20). The CR values for all constructs were higher than the acceptable level of 0.7, and all AVE values were higher than 0.5., except for tie strength and trust, which were 0.480 and 0.456, respectively. However, the convergent validity of the constructs was still adequate. Fornell and Larcker (1981) suggested that if the AVE is less than 0.5 but the CR is higher than 0.6, the convergent validity of the construct is still adequate. In our case, the values of CR for both tie strength and trust were higher than 0.6, at 0.731 and 0.768, respectively. Therefore, based on the evaluation of the factor loading, the AVE and the CR, it can be concluded that the convergent validity of the measurement model was acceptable. The results of the convergent validity are presented in Table 6-22.

**Table 6-22**  
*Convergent Validity Results*

<b>Constructs</b>	<b>CR</b>	<b>AVE</b>
Tie Strength	0.7	0.48
Homophily	0.86	0.61
Trust	0.77	0.46
Informational Influence	0.86	0.61
Learning	0.84	0.51
Endorsing	0.91	0.77
Sharing	0.93	0.61
Brand Trust	0.863	0.68

**Table 6-22***Convergent Validity Results*

<b>Constructs</b>	<b>CR</b>	<b>AVE</b>
Brand Commitment	0.887	0.72
Brand Loyalty	0.907	0.77

Discriminant validity reflects the extent to which a construct is truly distinct from other constructs and ensures that the scale is sufficiently different from other related scales. Discriminant validity between constructs was examined using three approaches. First, discriminant validity can be assessed by constraining the correlation between any two constructs to be specified (fixed) as equal to one. If there is a significant chi-square difference between the constrained and unconstrained models, discriminant validity is supported. The results of the comparisons between the models are presented in Table 6-23. While most of the models revealed significant  $\chi^2$  differences which confirmed the discriminant validity of the items, some of the models showed nonsignificant  $\chi^2$  differences. However, this approach does not always provide strong evidence of discriminant validity because correlations as high as 0.9 can still produce a significant difference in fit (Hair et al., 2014). It was used in this research to provide some evidence regarding discriminant validity. To further confirm the results, discriminant validity was also assessed by checking the estimated correlations between the constructs, which should not exceed 0.95 (Bagozzi & Yi, 1988). The estimated correlation between the constructs was reviewed and did not exceed 0.95 (Bagozzi & Yi, 1988) (see Table 6-21 in page 184).

**Table 6-23***Discriminant Validity Assessment using Chi-square Difference Test*

Correlation	Unconstrained Model		Constrained Model		Change		P-Value
	x <sup>2</sup>	df	x <sup>2</sup>	df	Δ x <sup>2</sup>	df	
Brand Trust <--> Brand Commitment	38.888	8	42.590	9	3.702	1	0.054
Brand Trust <--> Brand Loyalty	43.035	8	46.959	9	3.924	1	0.048
Brand Trust <--> Tie Strength	7.922	8	138.094	9	130.172	1	0.000
Brand Trust <--> Homophily	39.872	13	165.074	14	125.202	1	0.000
Brand Trust <--> Trust	26.441	13	61.790	14	35.349	1	0.000
Brand Trust <--> Learning	120.224	19	152.510	20	32.286	1	0.000
Brand Trust <--> sharing	151.156	43	161.537	44	10.381	1	0.001
Brand Trust <--> Endorsing	18.647	8	25.407	9	6.76	1	0.009
Brand Trust <--> Informational influence	24.069	13	84.256	14	60.187	1	0.000
Brand Loyalty <--> Brand Commitment	27.994	8	29.649	9	1.655	1	0.198
Brand Loyalty <--> Tie Strength	4.485	8	132.087	9	127.602	1	0.000
Brand Loyalty <--> Homophily	38.012	13	167.128	14	129.116	1	0.000
Brand Loyalty <--> Informational Influence	22.034	13	74.133	14	52.099	1	0.000
Brand Loyalty <--> Trust	27.222	13	77.452	14	50.23	1	0.000
Brand Loyalty <--> Learning	146.332	19	172.453	20	26.121	1	0.000
Brand Loyalty <--> Sharing	202.260	43	217.610	44	15.35	1	0.000
Brand Loyalty -Endorsing	37.866	8	55.848	9	17.982	1	0.000
Brand Commitment <--> Endorsing	14.604	8	30.072	9	15.468	1	0.000
Brand Commitment <--> Sharing	157.252	43	171.662	44	14.41	1	0.000
Brand Commitment <--> Learning	127.336	19	151.446	20	24.11	1	0.000
Brand Commitment <--> Tie Strength	5.421	8	130.350	9	124.929	1	0.000
Brand Commitment <--> Homophily	31.060	13	120.601	14	89.541	1	0.000
Brand Commitment <--> -Trust	35.538	13	104.949	14	69.411	1	0.000
Brand Commitment <--> Informational influence	21.955	13	48.949	14	26.994	1	0.000
Tie Strength <--> Trust	61.061	13	259.264	14	198.203	1	0.000
Tie Strength <--> Homophily	58.773	13	71.842	14	13.069	1	0.000
Tie Strength <--> Informational Influence	29.203	13	164.698	14	135.495	1	0.000
Tie Strength <--> Learning	125.177	19	237.991	20	112.814	1	0.000
Tie Strength <--> Sharing	159.996	43	285.557	44	125.561	1	0.000
Tie Strength <--> Endorsing	37.641	8	128.248	9	90.607	1	0.000
Homophily <--> Informational Influence	48.908	19	145.104	20	96.196	1	0.000
Homophily <--> Trust	57.000	19	224.849	20	167.849	1	0.000
Homophily <--> Learning	141.366	26	199.508	27	58.142	1	0.000
Homophily <--> Sharing	157.093	53	259.919	54	102.826	1	0.000
Homophily <--> Endorsing	34.450	13	121.097	14	86.647	1	0.000
Learning <--> Endorsing	146.229	19	151.079	20	4.85	1	0.027
Learning <--> Sharing	303.647	64	303.894	65	0.247	1	0.619
Endorsing <--> Sharing	228.123	43	256.753	44	28.63	1	0.000

Lastly, the discriminant validity of the constructs was tested by comparing the AVE value for each construct with the squared correlations of the remaining constructs of the study (Fornell & Larcker, 1981; Hair et al., 2014). To achieve discriminant validity, the AVE should be greater than the squared correlation estimate (Fornell & Larcker, 1981; Hair et al., 2014). Table 6-24 shows the results, which indicate no evidence of a severe discriminant validity problem. For example, the AVE for sharing is slightly less than the square root of the correlations with endorsing (by 0.04); the AVE for brand trust is also slightly less than the square root of the correlations with brand commitment (by 0.01); and the AVE for brand commitment is slightly less than the square root of the correlations with brand loyalty (by 0.01). Based on the literature (Rönkkö & Cho, 2020), these figures are not problematic, given that these constructs are closely related (e.g., endorsing and sharing [Muntinga et al., 2011] and brand trust, commitment and loyalty [Morgan & Hunt, 1994]).

**Table 6-24***Discriminant Validity Results*

<b>Construct</b>	1	2	3	4	5	6	7	8	9	10
1.Tie Strength	<b>0.48</b>									
2.Homophily	0.19	<b>0.61</b>								
3.Trust	0.10	0.08	<b>0.46</b>							
4.Informational Influence	0.02	0.00	0.05	<b>0.61</b>						
5.Learning	0.02	0.00	0.03	0.11	<b>0.51</b>					
6.Endorsing	0.02	0.01	0.01	0.00	0.16	<b>0.77</b>				
7.Sharing	0.04	0.03	0.02	0.03	0.24	0.66	<b>0.61</b>			
8.Brand Trust	0.03	0.01	0.10	0.07	0.09	0.13	0.12	<b>0.68</b>		
9.Brand Commitment	0.01	0.00	0.08	0.13	0.15	0.08	0.10	0.69	<b>0.72</b>	
10.Brand Loyalty	0.01	0.01	0.07	0.13	0.17	0.09	0.13	0.64	0.78	<b>0.77</b>

\* The diagonal values are AVE

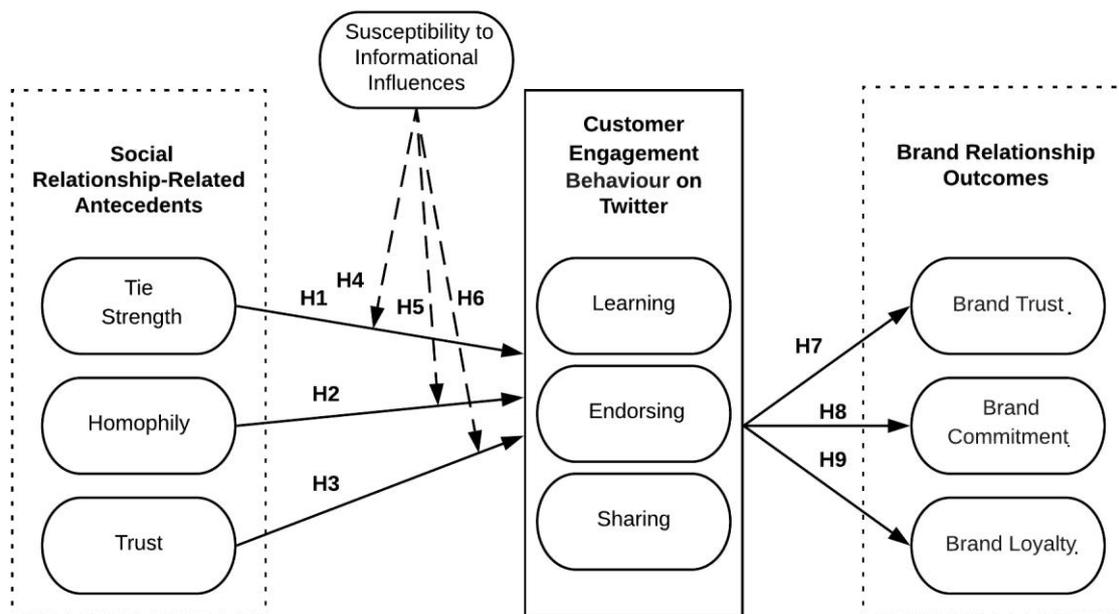
\* The squared correlations are displayed below the diagonal

#### 6.4.4 Structural Model and Hypotheses Testing

Following the result of the CFA for the full measurement model, the structural model, which was presented in Chapter 3 and confirmed via CFA, was tested. The structural model is shown in Figure 6-5. The structural model proposes three antecedents of CEBs on Twitter: tie strength, homophily and trust. The model also operationalises the CEB construct via three dimensions: learning, sharing and endorsing. Susceptibility to informational influence moderates the relationship between social constructs and CEB on Twitter. Brand trust, brand commitment and brand loyalty are proposed as the main outcomes of CEB on Twitter.

**Figure 6-5**

*The Structural Model of Customer Engagement Behaviour with the Brand*



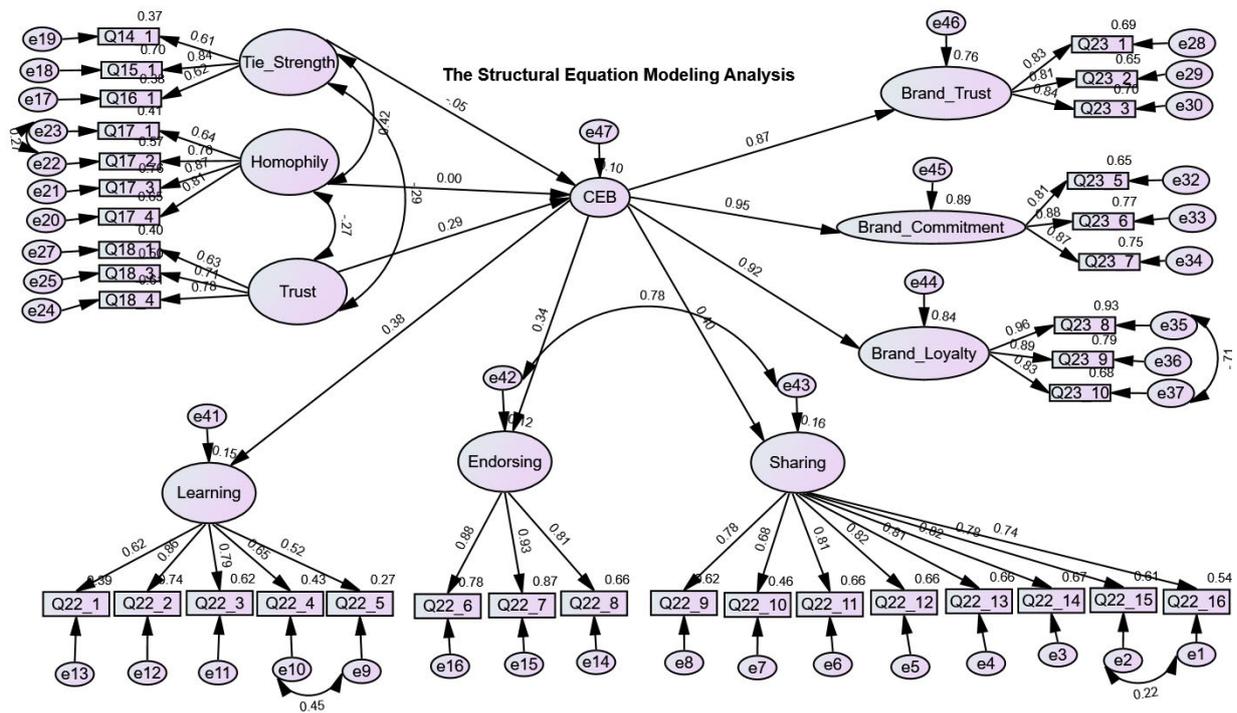
Structural equation modelling (SEM) is performed to test the relationships between observed and latent variables. The SEM allows the researcher to test the relationships among variables that represent the proposed model and assess how well this model fits the data. If the proposed model has an acceptable fit, it can be concluded that the model is supported. SEM

was used in this research to confirm the theory and the proposed hypotheses. The structural model was tested for a data set of 400 respondents using AMOS version 26. The next section provides the results of the SEM for the main and moderating effects.

*Main Effects.* The hypothesised structural model was tested using AMOS version 26, and the results revealed an acceptable model fit (CMIN = 1,134.501,  $p = 0.000$ ;  $\chi^2/df = 2.089$ ; RMSEA = 0.052 with PCLOSE = 0.190; NFI = 0.880; GFI = 0.840; AGFI = 0.840; CFI = 0.933 and TLI = 0.927). All standardised loadings were above or close to 0.50, and the t-values were all significant ( $p < 0.01$ ). These results were achieved after making modifications, such as adding correlated and residual error terms as well as deleting one item (Q18\_2: I feel confident about having discussions with the Twitter users I follow) from the trust construct (Hair et al., 2010), as shown in Figure 6-6. For example, the analysis of modification indices indicated that item (Q18\_2) was suspectable, and the removal of this item could slightly improve the model fit. Also, the endorsing and sharing constructs are closely related in the literature (e.g., Muntinga et al., 2011). Thus, covariance was added between the these two constructs. A combination of model fit indices was used to evaluate the model, including RMSEA, CFI, TLI and the value of CMIN/DF (Hair et al., 2014). Although the chi-square test was significant (CMIN= 1,134.501,  $p = 0.000$ ; CMIN/df = 2.089), that test alone was not enough to evaluate the model fit because significance may indicate sensitivity to the sample size rather than an inadequate model (Bagozzi & Yi, 1988). A statistically significant  $\chi^2$  ( $p < 0.05$ ) would be expected and acceptable in a model that consists of 40 measurement items with a large sample size of 400 cases (Bagozzi & Yi, 2012; Hair et al., 2014). Therefore, all statistics were within the acceptable limits, supporting that the data fit the structural model at adequate levels. Figure 6-6 depicts the result of structural equation model.

**Figure 6-6**

*The Structural Equation Modelling Analysis*



The results of the structural path model were then used to test the study’s hypotheses regarding the antecedents and outcomes of CEB in the Twittersphere. To test the hypotheses, a t value ( $t > 1.96$ ) and a significance level ( $p < 0.05$ ) were used to identify whether each hypothesis was supported (Byrne, 2010). Notably,  $p < 0.001$  indicates that a hypothesis is strongly supported (Su & Yang, 2010). Regarding the direct influence of the antecedents on CEB, the influence of homophily ( $\beta = -0.024$ ,  $t = -0.322$ ,  $p > 0.05$ ) and tie strength ( $\beta = -0.054$ ,  $t = -0.796$ ,  $p > 0.05$ ) was not supported; hence, H1 and H2 were rejected. Trust was positively related to CEB ( $\beta = 0.291$ ,  $t = 3.611$ ,  $p < 0.001$ ), which supported H3. Regarding the direct impact of CEB, the three outcomes of CEB were supported. The results supported H7, H8 and

H9, which demonstrated the positive influence of CEB on brand trust ( $\beta = 0.872$ ,  $t = 5.832$ ,  $p < 0.001$ ), brand commitment ( $\beta = 0.945$ ,  $t = 5.874$ ,  $p < 0.001$ ) and brand loyalty ( $\beta = 0.916$ ,  $t = 5.987$ ,  $p < 0.001$ ). The results of the study hypotheses of main effects are shown in Table 6-25.

**Table 6-25**

*Summary of Results: Hypothesis Testing of Main Effects*

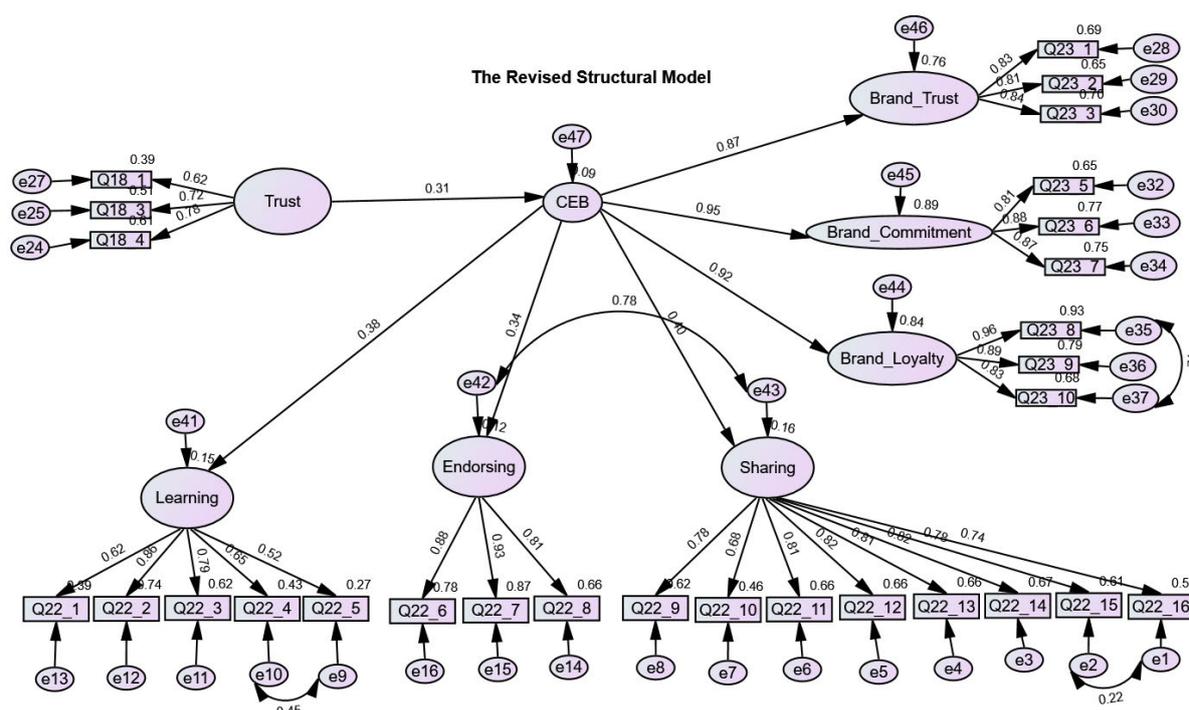
Path		Estimate	S.E.	C.R.	P	Significant	Supported
Tie strength → CEB	H1	- 0.054	0.020	- 0.796	0.995	NS	No
Homophily → CEB	H2	0.000	0.014	0.007	0.462	NS	No
Trust → CEB	H3	0.291	0.022	3.611	***	S	Yes
CEB → Brand Trust	H7	0.872	0.588	5.832	***	S	Yes
CEB→Brand Commitment	H8	0.945	0.628	5.874	***	S	Yes
CEB → Brand Loyalty	H9	0.916	0.671	5.987	***	S	Yes

**Note:** \* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$ ; S = Significant, NS = Not significant; CEB = Customer Engagement Behaviour.

The results of the SEM lend support to the theory that trust leads to CEB, including the impact of CEB on customer–brand relationships. While the conceptual model is considered statistically acceptable, a more parsimonious representation of the data, including deletion of the non-significant paths from the model, achieved a more acceptable fit (CMIN = 814.729,  $p = 0.000$ ;  $\chi^2/df = 2.403$ ; RMSEA = 0.059; NFI = 0.899; GFI = 0.876; AGFI = 0.852; CFI = 0.938 and TLI = 0.931). All standardised loadings were either above or close to 0.50, and the t-values were all significant ( $p < 0.01$ ). The revised model includes trust as an antecedent of CEB; learning, sharing and endorsing as dimensions of CEB and brand trust; and brand commitment and brand loyalty as the main outcomes of CEB. The revised Structural model, which shows all the significant paths and standardised estimates of the relationship between the constructs, is presented in Figure 6-7.

**Figure 6-7**

*The Revised Structural Model*



*Moderating Effects.* The moderating effects of susceptibility to informational influences were tested through multigroup SEM analysis (Byrne, 2010; Steenkamp & Baumgartner, 1998). The sample was divided into two groups—high and low susceptibility to informational influence—based on the mean value (5). Consequently, 289 (72%) participants were assigned to the high susceptibility to informational influences group ( $\geq 5$ ), and 111 (28%) participants were assigned to the low susceptibility to informational influences group ( $< 5$ ). Next, a chi-square difference test was performed between the unconstrained models (e.g., all paths can move freely) and the constrained models (e.g., paths are constrained and fixed to be

equal) across the high and low groups (Jaccard et al., 1990; Steenkamp & Baumgartner, 1998). A statistically significant chi-square difference indicates the existence of a moderation effect (Aiken & West, 1991; Byrne, 2010; Kline, 2015). A significant chi-square value change between the two models was found ( $\Delta X^2 (5) = 24,516, p < 0.001$ ), providing evidence of interaction. The results of the multiple group modelling are presented in Table 6-26. The chi-square difference test suggested that both groups were different at the model level, indicating that susceptibility to informational influences moderates the relationship between social relationship factors and CEB.

**Table 6-26**

*Results of the Multiple Groups Modelling*

<b>Variable</b>	<b>Models</b>	<b>X<sup>2</sup></b>	<b>Δ X<sup>2</sup></b>	<b>df</b>	<b>Δ df</b>
Susceptibility to informational influences	Unconstrained	1996.870	24.516***	1086	5
	constrained	2021.386		1091	

\*\*\* =  $p < .001$

To identify the non-invariant path in which the moderator effect works, we conducted chi-square difference tests between the unconstrained model and a series of constrained models in which we constrained each path to be equal between the groups (Kline, 1998). The significant chi-square difference indicates non-invariance of the constrained paths between the groups (Kline, 2015). The results of the multigroup analysis for the paths are presented in Table 6-27. Our results indicated that only the path from trust to CEB was statistically non-invariant across the two groups. Both the low and the high susceptibility groups were different for this path, indicating that susceptibility to informational influences moderated the path from trust to CEB at a significant ( $P < 0.10$ ) level. The value regression weights of this path were then examined for both groups. The results indicated that when susceptibility to informational influences was high, the relationship between trust and CEB was stronger ( $\beta = 0.306, p < 0.05$ ),

and when it was low, this relationship became weaker ( $\beta = 0.136$ ,  $p < 0.05$ ). Therefore, susceptibility to informational influences only moderated the link between trust and CEB. As a result, H6 was supported, but H4 and H5 were rejected. the result of the Hypothesis Testing of Moderation is presented in Table 6-28.

**Table 6-27**

*The Results of Multigroup Analysis for Paths*

<b>Path constrained</b>	<b><math>\chi^2</math></b>	<b><math>\Delta \chi</math></b>	<b><math>\Delta df</math></b>	<b>P</b>	<b>Significant</b>	<b>invariant</b>
Tie Strength → CEB.	1997.233	0.363	1	0.547	NO	Yes
Homophily → CEB.	1996.882	0.012	1	0.913	NO	Yes
Trust → CEB.	1999.700	2.830*	1	0.093	Yes	No

\* =  $p < 0.10$

**Table 6-28**

Summary of Results: *Hypothesis Testing of Moderation*

<b>Path constrained</b>	<b>High</b>	<b>Low</b>	<b>Significant</b>	<b>Supported</b>
Trust → CEB.	0.306	0.136	Yes	Yes

\* =  $p < 0.05$

## 6.5 Chapter Summary

This chapter illustrated the findings of the collected survey data, which had been subject to a cleaning treatment to ensure that it was free of irrelevant information. Various descriptive analyses were conducted to report the characteristics of the sample to support its suitability. Information about participants' demographics was presented and explained. Descriptive statistics were conducted to examine the general use of Twitter among the participants. For example, the means and standard deviations for all items were calculated to identify the most used activities on their Twitter accounts. In addition, the relative importance index (RII) was used to explain the findings about the many and varied reasons why participants use Twitter. The two-phase SEM process was applied to analyse the data, including verifying the

measurement model prior to testing the structural model. EFA and CFA were used to verify the factor structure of the observed variables. The reliability and validity of the scales were established. Lastly, the structural model was tested to confirm the hypotheses of the study.

## **Chapter 7 Discussions and Conclusion**

### **7.1. Introduction**

This chapter discusses the results and findings of this study. The current study investigated CEB on Twitter, addressed what drives CEB with the brand and the rational benefits of CEB for the brand, all of which are important issues for the contemporary discussion on CEB on social media platforms. It developed and tested a model explaining CEB on Twitter, the role of tie strength, homophily and trust in driving CEB and the impact of CEB on brand trust, brand commitment and brand loyalty, answering the calls for empirical research into the concept of CEB on the social media platform, specifically on Twitter (e.g., Barari et al., 2021; de Oliveira Santini, et al., 2020; Dessart, 2017; Hollebeek et al., 2016; Hamzah et al., 2021; Touni, et al., 2020). This chapter offers discussions of the findings of the study. It concludes with a discussion of the theoretical and managerial implications of the findings as well as the limitations of this study. It also offers suggestions regarding future directions of research related to this study.

### **7.2. Discussion**

#### **7.2.1. The Dimensionalisation of CEB on Twitter**

In line with previous studies (e.g., Barari et al., 2021; Barger et al., 2016; Cheung et al., 2011; Dolan et al., 2016; Fujita et al., 2020; Gummerus et al., 2012; Hamzah et al., 2021; Jahn & Kunz, 2012; Javornik & Mandelli, 2012; Libai, 2011; Schivinski et al., 2016; Triantafillidou & Siomkos, 2018; Tsai & Men, 2017; Verhoef et al., 2010; Wallace et al., 2014), this study suggested the behavioural dimension to be the main component of customer engagement on social media platforms (e.g., Twitter) because it supports an interactive role for customers with brands on the social media platforms (Hall-Phillips et al., 2016; Javornik & Mandelli, 2012; Triantafillidou & Siomkos, 2018). Building on previous studies, this research elaborates on the

behavioural aspect of engagement by explaining CEB with brands on Twitter. It has been suggested (e.g., Brodie et al., 2013; Dessart et al., 2016) that the behavioural engagement of customers within online brand communities can manifest through three dimensions: sharing, learning and endorsing. Using SEM, this study validates the existence of the learning, sharing and endorsing behavioural dimensions of CEB in the context of Twitter (e.g., Brodie et al., 2013; Dessart et al., 2016). The findings suggest that behavioural engagement on Twitter takes energy, effort and time and is associated with learning (Dessart et al., 2016; Dwivedi et al., 2016), sharing (Brodie et al., 2013; Schivinski et al., 2016) and endorsing (Brodie et al., 2013), which are considered the main brand-related engagement behaviours on Twitter.

To be more precise, this study enhances the understanding of these dimensions within the context of Twitter by providing definitions and detailing each dimension. The findings suggest that learning behaviour includes seeking content, information, experiences, ideas and/or other resources about a brand from a brand and/or its other customers on Twitter (Brodie et al., 2013; Dessart et al., 2016; van Doorn et al., 2010) and that it can take different forms, such as asking questions or seeking ideas and information about, reading posts about and viewing pictures and videos of the brand. It was also found that sharing behaviour on Twitter includes providing content and sharing information, experiences, ideas and/or other resources about a brand to other customers (Brodie et al., 2013; Dessart et al., 2016; Schivinski et al., 2016; van Doorn et al., 2010; Vivek et al., 2012). This includes different types of sharing behaviour, such as sharing ideas and interesting content about, commenting on posts about and retweeting posts related to a brand. Lastly, endorsing behaviour on Twitter includes showing support for, referring and/or recommending a specific brand to other customers (Brodie et al., 2013; Dessart et al., 2016; Gummerus et al., 2012; Jaakkola & Alexander, 2014; van Doorn et al., 2010). The findings suggest that, on Twitter, endorsing behaviour can take different forms,

such as promoting a brand, trying to get other customers interested in a brand and actively defending a brand from its critics.

## **7.2.2. Hypotheses**

### **7.2.2.1. Antecedents of Customer Engagement Behaviour on Twitter**

This study theorises that tie strength, homophily and trust, which have been determined as the focal dimensions that characterise the nature of social relationships on social networks and social media platforms (e.g., Bearden et al., 1989; Brown & Reingen, 1987; Chu & Kim, 2011; McPherson et al., 2001; Nahapiet & Ghoshal, 1998), may drive behavioural engagement with a brand on Twitter. The empirical findings support the idea that only trust has a positive effect on the level of CEB with brands on Twitter. The following sections explain the hypotheses regarding the impact of tie strength, homophily and trust on CEB on Twitter.

**Tie Strength → CEB.** Despite support for the possible impact of tie strength on following brands and facilitating engagement with brands on Twitter (e.g., Phua et al., 2017), the findings of this study did not find tie strength to be positively related to CEB with a brand on Twitter. This finding contrasts with previous studies that found perceived tie strength is positively related to customers' intention to seek and share brand-related information in the online social media context (e.g., Chu & Kim, 2011). An explanation for this result could be that when customers engage with other customers about a brand on Twitter, they tend to engage with all their followers regardless of their ties with those followers. Another explanation could be that when customers engage with others about a brand on Twitter, they tend to focus more on the content of a brand-related post (e.g., De Choudhury, 2011). Therefore, perceived tie strength does not have a significant influence on CEB on Twitter.

**Homophily → CEB.** This study did not find perceived homophily to be positively related to CEB with a brand on Twitter. This result is consistent with Chu and Kim (2011),

who found perceived homophily to have a negative relationship with seeking and sharing behaviours of brand-related information within the online social media context (Chu & Kim, 2011). However, some previous studies have suggested that homophilous individuals tend to share information with one another, whether in the offline context (e.g., Rogers & Bhowmik, 1970) or in the online context (e.g., Facebook and Instagram) (Onofrei et al., 2022). In the social media context, it has been suggested that users tend to connect with others when they have similar interests, values, etc. (Khanam et al., 2022). However, on Twitter, similarities in customers' attitudes and values do not necessarily lead to CEB when communicating about a brand. One possible explanation for this is that Twitter and/or any other social media platforms enable customers worldwide with varied interests, values, etc. to engage with brands. Therefore, it might be that homophily will be less likely to appear among Twitter users when communicating about brands because it may prohibit their capacity to access diverse information and knowledge from one another about a brand (Chu & Kim, 2011).

**Trust → CEB.** This study found that Twitter users' perceived trust in their following list is positively related to their engagement behaviour with a brand on Twitter, confirming the important role of trust on Twitter when engaging with a brand (e.g., Pentina et al., 2013). Trust helps customers evaluate the source and value of information, which can facilitate engagement behaviours on Twitter. Trust on Twitter is important because customers trust those they follow and value their opinions when communicating brand-related information (Oh et al., 2017). This means that a higher degree of trust between Twitter users is likely to influence their level of engagement (e.g., Chahal & Rani, 2017). Customers share and seek brand-related information on social media platforms, such as Twitter, because of an atmosphere of trust between friends and/or colleagues (e.g., Chahal & Rani, 2017; Ng, 2013; Rohm et al., 2013). Thus, the current research corroborates studies that have found a positive effect between trust and members'

intention to engage on social media platforms (Chahal & Rani, 2017; Chu & Kim, 2011; Ridings et al., 2002).

To summarise, although the influence of tie strength and homophily on CEB was not supported, this might be partly explained by the context of Twitter. While the functionalities of Twitter allow various ways to establish connections, interactions and groups among users (e.g., hashtags), this platform adopts an asymmetrical follow model in which users do not need to approve their followers. Users can follow people they do not know, and they are not necessarily followed back, which may or may not create a mutual relationship between the parties. Therefore, ties between users on Twitter are not necessarily expected to be a two-way relationship. In addition, on Twitter, a user's content is more visible than their profile, and users are likelier to interact with content than only with friends or followers. Therefore, the ties that evolve on Twitter can be driven by content (e.g., Onofrei et al., 2022). Another explanation could be that when customers engage with a brand (i.e., commenting on good experiences), they tend to share their experience with all their followers, regardless of their ties (i.e., weak or strong ties) or similarities in attitudes (e.g., beliefs or values).

#### **7.2.2.2. Moderating Effects of Susceptibility to Informational Influences**

This study suggests that susceptibility to informational influences may moderate the relationship between CEB and its antecedents. In particular, the results indicated that only the path from trust to CEB was significant. Therefore, susceptibility to informational influences only moderated the link between trust and CEB. This result is consistent with previous studies that suggested that customers who are subject to informational influence are predicted to show a higher need to acquire information and guidance from knowledgeable others when searching for brand information, which will influence their engagement behaviour with a brand (Bearden et al., 1989; Chu & Kim, 2011). Furthermore, such customers may rely on their social groups to form certain behaviours (Aral & Walker, 2012), such as engaging with others about brands

on Twitter. Customers who are more susceptible to informational influence value the information they receive from engaging with others, such as friends and other brand users (e.g., Laroche et al., 2005). On Twitter, customers who are highly susceptible to informational influence are likelier to depend on those they follow to gather information about brands, which may encourage CEB with brands. This finding is important because it offers an explanation of what may cause the antecedents of CEB to be effective on the social media platform (e.g., Twitter).

### **7.2.2.3. Outcomes of Customer Engagement behaviour on Twitter**

Brand trust, brand commitment and brand loyalty have been conceptualised as direct brand relationship outcomes of CEB in the research hypotheses (Chaudhuri & Holbrook, 2002; Dessart, 2017; Hollebeek, 2011b; Maslowska et al., 2016; van Doorn et al., 2010). The following sections explain the hypotheses regarding the impact of CEB on Twitter on brand trust, brand commitment and brand loyalty.

**CEB → Brand Trust.** The findings of this study show that CEB with a brand is positively related to brand trust on Twitter, which is not surprising because the interactive features of Twitter enable customers and brands to communicate on a deeper and more personal level and initiate a rich communication context for both customers and brands. This gives brands the opportunity to ensure that they are a high-quality relationship partner (Dessart, 2017; Hollebeek, 2011a) and reduce the risks associated with the brand (Dessart, 2017). The cooperative behaviours between customers and/or a brand on Twitter that arise can form CEB, and if a brand enables customers to satisfactorily engage with them, trust is likely to occur (Dessart, 2017). If a brand provides compelling content on Twitter, it can attract customers to engage and invest time, energy and effort into sharing, learning and/or endorsing behaviours with the brand (Dessart, 2017; Malhotra et al., 2012). When that brand ensures continuous

engagement with customers over time, trust can be achieved (Dessart, 2017; Marzocchi et al., 2013).

**CEB → Brand Commitment.** The findings of this study show that CEB with a brand is positively related to brand commitment on Twitter. This supports the idea that CEB with a brand on Twitter enables customers to maintain relationships with brands, which may lead to increased brand commitment. Engaging customers with a brand on Twitter enables brands to keep customers committed to the customer–brand relationship (Dessart, 2017). It has been suggested that social interaction and communication with a brand in an online community leads to the establishment and development of relationships and commitment to members of the community, which in turn leads to brand commitment (Kim et al., 2008). Therefore, when customers behaviourally engage with a brand on Twitter and invest time, energy and effort into it or show a desire to maintain a relationship with the brand, they are likelier to be committed to it (Dessart, 2017; Hollebeek, 2011a).

**CEB → Brand Loyalty.** Brand loyalty is considered an important outcome in the customer–brand relationship (e.g., Chaudhuri & Holbrook, 2002; Morgan & Hunt, 1994). Bowden (2009) defined engagement with brands as a process that drives loyalty. Indeed, CEB on social media platforms has been suggested as an essential determinant of brand loyalty (e.g., Li et al., 2020; Maslowska et al., 2016; van Doorn et al., 2010). This study focuses on behavioural brand loyalty, which presents as repeat purchases of the same brand (Odin et al., 2001). The findings of this study show that CEB with a brand is positively related to brand loyalty on Twitter. Therefore, when customers engage via Twitter with brands to learn and/or share brand-related information, they are likelier to become loyal to that brand (Hollebeek, 2011a). These engaging behaviours are likelier to develop strong beliefs, strengthen affection and encourage repeat purchase behaviours towards a brand (Leckie et al., 2016; Oliver, 1999; van Doorn et al., 2010).

To summarise, the findings further support the positive impact of CEB on brand trust, brand commitment and brand loyalty. These relationships have been conceptually established (e.g., Brodie et al., 2011; Hollebeek, 2011b) and empirically confirmed (e.g., Brodie et al., 2013; Dessart, 2017) within the online brand community in the social media context. This study aimed to test these relationships in the open atmosphere of social media (Twitter). Therefore, this study confirmed the existence of these relationships within another environment that is ‘dynamic, nonlinear, in real-time, and reflective of the inter-relationships between brands, customers, and one another’ (Maslowska et al., 2016, p. 2). This is an important finding because engaging within a brand’s community includes mostly the brand’s fans and followers, while engagement on a social media platform, such as Twitter, can include other potential customers. Indeed, these three constructs (brand trust, brand commitment and brand loyalty) are considered critical and pivotal for understanding customer–brand relationships in the context of social media platforms (e.g., Brodie et al., 2013; Fournier, 1998; Gómez et al., 2019; Hudson et al., 2016; Keller, 2001). The interactive features of Twitter enable brands to listen and reply to customers and communicate on a deeper and more personal level, all of which create a partnership (Hollebeek, 2011b; Kwon & Sung, 2011). Therefore, when customers engage on Twitter and invest time, energy and effort into sharing, learning and/or endorsing behaviours with a brand, when that brand ensures continuous engagement over time, trust, commitment and loyalty can be achieved.

### **7.3. Theoretical Contributions**

This thesis aimed to address gaps in the CEB literature in the social media context, specifically on Twitter. The findings contribute to the knowledge of CEB in four important ways.

1. This study's results advance the conceptualisation and operationalisation of CEB in the context of social media, specifically Twitter. The first task was conceptualising the CEB construct as three dimensions—learning, sharing and endorsing (Dessart et al., 2016)—followed by empirically testing and measuring the dimensions within the context of Twitter. This approach confirmed the relevance and applicability of the three dimensions (Dessart et al., 2016) in the Twitter context. This contribution extended Dessart et al.'s (2016) work, which includes an online brand community context, to provide an understanding of engagement behaviour in other contexts. As Dessart et al. (2016) stated, 'It would be interesting to determine if the social network (Facebook, Twitter) or ecosystem potentially affects engagement' (p. 419). This thesis also enhanced the understanding of the three established dimensions by detailing their conceptual and operational structures. For example, learning about a brand on Twitter can include different patterns of learning behaviour, such as asking questions or seeking information, reading posts and comments and/or viewing pictures and video. Sharing behaviour on Twitter can also include patterns, such as sharing ideas and interesting content, commenting on posts and retweeting posts. Lastly, endorsing behaviour can occur on Twitter, such as promoting a brand, attempting to interest other customers in a brand and actively defending a brand from its critics.
2. The empirical validation of the developed model contributes to both the identification and validation of antecedents and outcomes of CEB in the social media context, specifically on Twitter. The current CEB literature indicates a need to investigate CEB across different types of social media platforms (e.g., Twitter, Instagram, etc.) (Dessart et al., 2016; Hollebeek et al., 2014; Leckie et al., 2016). This thesis examined CEB and its antecedents and outcomes in the Twittersphere by developing and testing a model that explains the role of social relationships in driving CEB, including the impact of

CEB on consumer–brand relationships. Although some hypotheses were not supported, the presented evidence shows the role of social relationships in driving CEB and furthers our understanding of what may motivate and drive customers to engage with a brand on Twitter. In particular, the current study revealed that trust between parties on Twitter affects the level of CEB with a brand. Additionally, this research confirmed the impact of CEB on enhancing consumer–brand relationships on Twitter, including that engaging with a brand on Twitter builds trust, commitment and loyalty to that brand.

3. This thesis revealed the moderating role of susceptibility regarding informational influences in the engagement phenomenon in the marketing literature. Social media users who are susceptible to informational influence are predicted to display a higher need to seek information support and guidance from other knowledgeable followers when making brand choices. This finding significantly enriches the existing CEB literature because it offers an explanation for what may affect the link between antecedents and engagement behaviour on social media platforms, such as Twitter. Thus, customers who are more susceptible to informational influences tend to rely more on their social groups on Twitter or other social media platforms.
4. This study provided evidence regarding the role of Twitter in CEB through the development and empirical examination of the key antecedents of CEB and relevant customer–brand relationship outcomes. Facebook has notably been the focus of many engagement behaviour studies (e.g., Gummerus et al., 2012), with little attention given to other social media platforms, such as Twitter (Triantafillidou & Siomkos, 2018; Williams et al., 2013). Twitter, as a beneficial customer engagement tool, has been suggested to be twice as likely to improve customer engagement with a brand as other social media platforms (e.g., Facebook) (de Oliveira Santini et al., 2020). This study also provided insight into the role of Twitter in the CEB literature.

#### **7.4. Managerial Implications**

The current study addressed what drives CEB with the brand, the rational benefits of CEB for the brand and what may strengthen CEB, all of which are critical issues for marketers. The results have direct implications for customer relationship management (CRM) and consumer–brand relationships management. The findings of this thesis provide the following valuable practical insights for online marketers.

The current study proved that trust between parties on Twitter affects their level of engagement behaviour with a brand, making it an important factor that leads to increased CEB with brands on Twitter (e.g., Robert et al., 2008; Warner-Søderholm et al., 2018). Therefore, marketers should focus on facilitating trust among Twitter users by encouraging them to share and endorse brand-related posts with their friends, family members or colleagues or by targeting social influencers, who have already earned the trust and respect of millions of followers, to spark conversations about a brand through tweets, retweets and likes. Marketers could also host a hashtag to facilitate discussions and information sharing among Twitter users to build trust among participants (e.g., Ng, 2013; Rohm et al., 2013).

This study also confirmed the existence of the three dimensions of CEB—learning, sharing and endorsing—on Twitter, which enhances marketers’ understanding of CEB on Twitter and offers a reliable way of capturing the various forms of CEBs that may occur on Twitter. This helps marketers measure the level of CEB with their brand on Twitter and evaluate the effectiveness of customer engagement strategies. It also provides useful information for marketers to develop appropriate strategies for facilitating these behaviours. For example, marketers should focus on enhancing each of the three CEB dimensions when attempting to develop strategies to engage customers (e.g., ensuring that customers receive real-time responses to questions and information-seeking behaviour) on Twitter because both are associated with the learning dimension. This can be achievable by developing 24/7

customer support on Twitter to meet customer expectations and increase the level of engagement. Furthermore, marketers should develop a content strategy to ensure that they create interesting, useful and informative brand-related content on Twitter to effectively draw and hold the interest of followers and provide a rich context from which customers can share and learn, which will eventually encourage CEBs (Onofrei et al., 2022).

Finally, CEB is crucial if brands want to achieve customer–brand relationships (Dessart, 2017; Gambetti & Graffigna, 2010; Gummerus et al., 2012; Hudson et al., 2016; Kumar, 2020; van Doorn et al., 2010). This study revealed the role of CEB on Twitter in strengthening trust, commitment and loyalty towards a brand, which are three important outcomes for a successful customer–brand relationship (Dessart, 2017; Touni et al., 2020). This study enhances marketers’ understanding of how CEB can be utilised for enhancing customer–brand relationships on Twitter and suggests Twitter as a beneficial customer engagement tool (de Oliveira Santini et al., 2020). Twitter can offer a rich communication context for both brands and customers to establish, maintain and develop a quality partnership (Hollebeek, 2011b; Jansen et al., 2009). Therefore, marketers should encourage a broader network of actors, including current and potential customers, opinion leaders, public figures, celebrities, etc., to follow their brands on Twitter and encourage them to frequently engage with their brands’ content through tweets, retweets or likes.

## **7.5. Limitations**

Despite the theoretical and managerial implications of this study, certain limitations should be acknowledged to assist with the development of further research.

Notably, COVID-19 poses many challenges for researchers that are related to different areas of research, including but not limited to producing, gathering, analysing and interpreting data. This study, like others, was affected by this disruption. Data collection occurred between April and May 2020 after postponing the beginning twice due to the COVID-19 pandemic.

Thus, the most significant limitation of this study was collecting data during this difficult and unusual time. With stay-at-home policies in place, people were required to work virtually for an extended time, which made it harder to recruit enough participants. Additional work was necessary to reach the required sample size because most people do not want to spend more time looking at a screen to participate in a study. This increased the chance of missing valuable participants. A survey was used to collect data during the emergency period. Importantly, this crisis has dramatically affected every aspect of people's lives. Daily protocols have changed, and stress has increased regarding health, employment and finances. People have also become more concerned about their mental health and wellbeing; some have started to suffer from loneliness and depression. This pandemic has had a devastating effect on how people think, feel and act regarding almost every aspect of life. As a result, it has impacted what people talk about on social media platforms and in person; the pandemic tends to dominate all conversations. Social media platforms have been used to inform families, friends and colleagues about this pandemic to help them stay safe and make healthy choices. This period of deprivation and anxiety will usher in new consumer attitudes and behaviours (Kotler, 2020) and might impact their behaviour with brands. Consequently, communication with the brand and brand sentiment might be impacted.

Another limitation of this study is related to the sampling strategy. A non-probabilistic snowball sampling technique was utilised, which is limited regarding generalisation. However, the focus of this study was on understanding the behaviours of engagement rather than generalisations.

Finally, this study focuses on CEB on Twitter, but each platform has unique characteristics in terms of functionalities, interface, features, content and the conduct of members while on the platform (Voorveld et al., 2018). Therefore, customers engage with these platforms

differently, and investigating CEB across different social media platforms (e.g., Instagram) could lead to different findings.

## **7.6. Directions For Future Research**

This thesis is an effort to enhance our understanding of CEB with the brand in the social media context, specifically Twitter. This section presents several important areas of future research that could advance our knowledge of engagement.

The current study advances our understanding of CEB and its antecedents and outcomes in the social media context, specifically Twitter. An increasing number of customers are actively engaging in relationships with brands and firms on social media platforms (Harrigan et al., 2018), making expanding studies to investigate and identify CEBs' antecedents and outcomes in the social media setting a priority for marketing research. However, we know far less about engagement behaviour with brands on newer platforms, such as Snapchat, TikTok and Clubhouse. Social media platforms have different potential for CEBs depending on different factors related to their users and/or capabilities. It will be valuable to investigate CEBs across different types of platforms and to identify how and what might drive engagement behaviour among customers. Such an investigation would be valuable for helping brands with a presence on different platforms develop an appropriate strategy for each platform.

In addition, the use of social media platforms (e.g., Twitter) is increasing dramatically, and these sites are constantly updating and changing their features and characteristics. CEB, its drivers and outcomes are also changing. Notably, while brands are integrating social media into their communication strategies, what works today may not work tomorrow. Therefore, regular research on CEB across different social media platforms is necessary to track the changes in CEB within social media platforms.

Moreover, changing the focus of this study may provide new insight. While the focus of this study was investigating the role of CEB with the brand within a network of nomological relationships with other relational concepts, it did not focus on a specific brand, product category or industry. Therefore, future studies could investigate those areas. For example, it would be interesting to investigate whether the impact of CEB differs for different brand categories or if the drivers of CEB vary in different industries. Additionally, this study focused on CEB from the consumer perspective. Another intriguing research direction would be looking at CEB from the firm perspective. For example, it would be valuable to investigate what encourages CEB from the firm side.

Furthermore, age and gender can be a factor in CEB within social media, making it relevant to extend our knowledge of CEB in this regard. For example, it is important to understand whether CEB and its drivers differ across different age groups and genders. Such an investigation could provide valuable information for brand managers because each generation uses social media and views branding differently.

Finally, this study provided evidence about CEB on social media from the Asian market, specifically Saudi Arabia. Different cultures and countries could have different findings regarding customer engagement behaviour. It would be valuable to enhance our knowledge and understanding of the potential and dynamics of CEB in other cultures (Christofi et al., 2018; Gupta et al., 2018). This could provide new theoretical and practical insights into global customer engagement as social media is facilitating new opportunities for both customers and brands to create and develop strong and meaningful lifelong relationships.

## **7.7. Chapter Summary**

This chapter discussed the findings, research implications and research contributions and discussed the limitations, future research directions and conclusions. This

study contributes to both the academic and practitioner literature in several ways. It conceptualises the CEB construct as three dimensions—learning, sharing and endorsing—and confirms the relevance and applicability of the three dimensions within the Twitter context. Therefore, it offers managers a reliable way to understand the various forms of CEBs on Twitter. This will help them measure the level of CEB within their Twitter accounts and evaluate the effectiveness of their CEB strategies. This study provides evidence regarding the role of social relationships such as trust as an antecedent of CEB and confirms the impact of CEB on building trust, commitment and loyalty to the brand. Thus, it enhances marketers' understanding of how CEB can be utilised for enhancing customer–brand relationships and highlights the importance of providing relevant information about the brand on their social media platforms, including Twitter, to increase CEB. The study also offers evidence regarding the role of susceptibility to informational influences in CEB. Certain limitations of the study were identified to assist with the development of further research. For example, this study focused on the context of Twitter; hence, using other social media platforms could lead to different findings. This chapter concludes with thoughts on future research.

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## **Appendices**

**Appendix 1:**  
**The questionnaire (English and Arabic versions)**

## English Questionnaire

### **Page 1: Introduction/ Cover letter**

Dear Participants,

Welcome and thank you for considering your participation in this online survey. I am conducting this questionnaire as part of my PhD studies. The research study investigates customer engagement behaviour on Twitter. You are kindly invited to participate if you are a Saudi citizen who is 18 years old or more. I appreciate your time in completing this questionnaire, which will take less than 30 minutes. Your responses will remain confidential and will be used ONLY for academic purposes. Please be advised that your participation is voluntary, and by completing this online questionnaire and submitting it, you are providing your consent to participate in this study. I also appreciate your support and help for this research by distributing this survey via your Twitter account to your other Twitter users.

For enquiries and further information regarding this research and/or the questionnaire, please do not hesitate to contact me.

Yours sincerely,

Mohammad Alsahli

[mohammad.alsahli@live.vu.edu.au](mailto:mohammad.alsahli@live.vu.edu.au)

Victoria University Business School

## **Page 2: Screening Questions**

1. Are you 18 years of age or older?  Yes  No (Logic: No go to page 3)
2. Are you a Saudi citizen?  Yes  No (Logic: No go to page 3)

## **Page 3: Disqualification**

Thank you for your cooperation. We are sorry, if you are younger than 18 years old and/or you are not a Saudi citizen, you do not qualify to take this survey.

However, if you are a Non-Saudi citizen who is older than 18 years of age and still willing to take part in this study, we encourage you to share the questionnaire with your Twitter followers. If you are also interested in the study result, please contact the researcher at [mohammad.alsahli@live.vu.edu.au](mailto:mohammad.alsahli@live.vu.edu.au).

## **Page 4: Welcome and General Instructions**

Thank you for taking part in this study. Throughout the questionnaire, you will be asked to answer questions about your engagement behaviour on Twitter. The following are general instructions:

- Your responses are very important to us and will be submitted without any information about your identity.
- The questionnaire is based on your feelings, opinions and views, and as such there is no right or wrong answers.
- Please read the questions carefully and click on the response that reflects what you think.
- It may be helpful to review your Twitter account to refresh your memory.

### **Page 5: Twitter Usage**

The study is interested in your general use of Twitter. Please read each of the questions and click on the appropriate answer.

3. Do you have a Twitter account?  Yes  No
  
4. What device do you use to access Twitter? (tick as many as apply)
  - Smart phone
  - Tablet
  - Laptop
  - Desktop
  - Others (Please specify \_\_\_\_\_ )
  
5. How long have you used Twitter?
  - Less than a year
  - Between a year and less than 4 years
  - Between 4 years and less than 8 years
  - 8 years or more
  
6. On average, how many times a day would you check your Twitter account?
  - I don't log on every day
  - Once a day
  - 2-6 times a day
  - 7-10 times a day
  - More than 10 times a day
  - Always connected to my Twitter account (I receive notifications so am always connected to my Twitter account).

**Page 6: Twitter usage**

7. On average, when you check your Twitter account, how many minutes do you spend checking your account?
- Less than 15 minutes
  - 16 to 30 minutes
  - 31 to 60 minutes
  - 61 to 90 minutes
  - More than 90 minutes
8. How often are you active on Twitter? (Tweet/Retweet/Like/Reply/Comment).
- Never (I just read)
  - A few times a month
  - A few times a week
  - Daily
  - 2 - 5 times a day
  - More than five times a day
9. Based on your activities on Twitter, rank the following activities from the most to least used activity?
- Tweet
  - Retweet
  - Replay
  - Like
  - Direct message
  - Mention
10. Approximately, how many Twitter accounts do you follow?
- Less than 100 twitter accounts
  - 100 – 500 twitter accounts
  - 501 – 1000 twitter accounts
  - 1001 – 2000 twitter accounts
  - More than 2000

**Page 7: Twitter usage**

11. Click on the button that best describes how often do you use Twitter for the following reasons?

	Always	Very often	Sometimes	Rarely	Never
I use Twitter for social interactions	<input type="radio"/>				
I use Twitter to seek out information	<input type="radio"/>				
I use Twitter to pass the time	<input type="radio"/>				
I use Twitter as a source of entertainment	<input type="radio"/>				
I use Twitter for relaxation purposes	<input type="radio"/>				
I use Twitter to express thoughts and opinions	<input type="radio"/>				
I use Twitter for information sharing	<input type="radio"/>				
I use Twitter as a tool to communicate with others	<input type="radio"/>				
I use Twitter to communicate because it is convenient	<input type="radio"/>				
I use Twitter to learn about what others are doing	<input type="radio"/>				
I use Twitter for educational purposes	<input type="radio"/>				
I use Twitter to find out about brands or products (goods and services)	<input type="radio"/>				

I use Twitter for work purposes

12. Which of the following topics are of the most interest to you in the Twittersphere? (tick as many as apply).

- Fashion  News  Rumors/Gossip  brands and products (goods & services)  Political issues  Education  Social events  Work  Music  Entertainment
- Others (Specify \_\_\_\_\_)

**Page 8: Social relationship with the following list on Twitter**

The following questions relate to the social relationships that you have with the Twitter users you follow. Please read carefully and select the appropriate response

13. Which of the following group of people do you follow on Twitter? (tick as many as apply)

- Immediate family members
- Relatives not in my immediate family
- Close friends
- Acquaintances
- Classmates
- Neighbours
- Work or business colleagues
- Public figures
- Celebrities
- Others (Specify \_\_\_\_\_)

14. Click on the button that best describes how frequently you communicate via direct messages, replies, or mentions etc with the Twitter users you follow?

- Never        All the time

15. Click on the button that best expresses how close you feel to the Twitter users you follow?

Not at all close                        Very close

16. Click on the button that best describe how important the Twitter users you follow are to you?

Not at all important                        Very important

**Page 9: Social relationships with the Twitter users you follow**

The following statements describe your perceived similarities and differences with the Twitter users you follow. Please read carefully and select the response that represents your view and opinion.

17. For each of the following items, click on the button that best describes what you think about the Twitter users you follow on Twitter:

Don't think like me	<input type="radio"/>	Think like me						
Don't behave like me	<input type="radio"/>	Behave like me						
Are different from me	<input type="radio"/>	Are similar to me						
Are unlike me	<input type="radio"/>	Are like me						

The following statements relate to the Twitter users you follow. Please read carefully and select the response that represents your feelings.

18. Generally speaking,

Very Strongly Disagree   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree   Very Strongly Agree

I trust most of the Twitter users I follow	<input type="radio"/>						
--	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

I feel confident about having discussions with the Twitter users I follow

The Twitter users I follow will do everything within their capacity to help others.

The Twitter users I follow offer honest opinions.

**Page 10: Interactions with the brand via Twitter**

In this survey, “brand” refers to any official Twitter account that represents an organisation that sells or produces goods and/or provides services, but not individuals or celebrities. For example:

- McDonald's KSA @McDonaldsKSA
- JarirBookstore @JarirBookstore
- ArabianOud @ArabianOud
- Samba Financial Group: @SambaBank,
- Saudi Telecom Company @STC\_KSA
- The Middle East’s online marketplace @ SouqKSA
- Saudi Airlines @Saudi\_Airlines
- Lexus Saudi Arabia @LexusKSA
- Noon.com @noon
- Uber Saudi Arabia @ Uber\_KSA

19. Given this definition for a brand, do you follow at least one official brand account on Twitter?  Yes  No (Logic: Yes go to Q 20, No go to Q 21).

20. Please write the brand that you follow on Twitter (please write the name of only one brand):  
.....

21. Even though if you do not follow a brand on Twittersphere, please think of one brand that you are interested in on Twitter. Write the brand that you are interested in (please write the name of only one brand): .....

Please answer all the following questions with reference to the brand you follow or selected.

**Page 11: interactions with the brand via Twitter**

22. The following statements are about your Twitter interactions with your selected brand. Please read carefully and select the response that reflects your behaviours in relation to the brand that you indicated you follow and/or are interested in via Twitter.

	Very Strongly Disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
I ask questions on Twitter about the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I seek ideas or information from Twitter users about the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I seek help from Twitter users about the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I read posts related to the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I look at pictures/graphs/video related to brand on Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I promote the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to get others interested in the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I actively defend the brand from its critics on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I say positive things about the brand to other people on Twitter.	<input type="radio"/>						
I 'like' posts related to the brand on Twitter.	<input type="radio"/>						
I share my ideas about the brand on Twitter.	<input type="radio"/>						
I share interesting content about the brand on Twitter.	<input type="radio"/>						
I help others about the brand on Twitter.	<input type="radio"/>						
I comment on posts related to the brand on Twitter.	<input type="radio"/>						
I initiate posts related to the brand on Twitter	<input type="radio"/>						
I retweet posts related to the brand on Twitter	<input type="radio"/>						

**Page 12: Relationship with the brand**

23. The following statements relate to your relationship with the brand you nominated earlier and/or you are interested in on Twitter. Please select the response that best reflect how you feel about this brand.

	Very Strongly Disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
I trust this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I rely on this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This is an honest brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand is safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have grown to like this brand more than others offering the same product/service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the products/services offered by this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand is the one whose product (goods & services) I enjoy using most	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will buy products of the brand next time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I intend to keep purchasing products from the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will recommend the brand to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Page 13: About you and your decision-making and purchase behaviour**

24. Please read carefully and select the response that reflects your decision-making and purchase behaviours.

Very Strongly Disagree   Neutral   Agree   Strongly Agree   Very Strongly Agree

To ensure that I buy the right product or service, I observe what others are buying and using.

If I have little experience with a product or service, I ask my friends about the product or service

I consult with other people to help choose the best alternative available from similar products and services

I gather information from friends or family about a product or service before I buy it.

## **Page 14: Demographic Questions**

This is the final section of the questionnaire. Please remember that your responses are confidential.

25. What is your age?

- 18 – 24
- 25 – 34
- 35 – 44
- 45 – 54
- 55- 64
- 65 and above

26. What is your gender?

- Male
- Female

27. Where do you live?

- Riyadh Region.
- Makkah Region.
- Madinah Region.
- Qassim Region
- Eastern Province Region.
- Northern Borders Region.
- Jawf Region.
- Ha'il Region.
- Bahah Region.
- Jizan Region.
- Asir Region.
- Najran Region.
- Tabuk Region.

**Page 15: Demographic Questions**

28. What is the highest degree or level of school you have completed?

- Less than a high school diploma
- High school degree or equivalent
- Diploma degree
- Bachelor's degree
- Postgraduate degree
- Other (please specify\_\_\_\_\_)

29. What is your current employment status?

- Employed full-time
- Employed part-time
- Unemployed
- Self-employed
- Retired
- Student

30. What is your marital status?

- Single
- Married
- Divorced
- Widowed
- Prefer not to say.

31. What is your household income per month?

- Less than (SAR) 3,000
- Between (SAR) 3,000 and 12,000
- Between (SAR) 12,001 and 20,000
- Between (SAR) 20,001 and 30,000
- Over (SAR) 30, 000
- Prefer not to say.

Thank you for your time and effort in completing this questionnaire.

## Arabic Questionnaire

### الصفحة 1 : مقدمة

عزيزتي المشاركة / عزيزي المشارك:

مرحبًا بك وشكرًا على الاستقطاع من وقتك للمشاركة في هذه الاستبانة، حيث تعتبر هذه الاستبانة جزءًا من بحثي العلمي الخاص بمرحلة الدكتوراه. ويهدف البحث للتعرف على سلوك تفاعل المستهلك مع العلامات التجارية (الماركات) في تطبيق تويتر.

أمل منك المشاركة في هذه الاستبانة إذا كنت مواطنًا أو مواطنة من الجنسية السعودية وعمرك 18 سنة أو أكثر، حيث سيستغرق إكمال هذه الاستبانة أقل من ثلاثين دقيقة. علما بأن جميع إجاباتك ستعامل بسرية وسيتم استخدامها فقط للأغراض الأكاديمية. كما أن مشاركتك تطوعية، ويعتبر إكمالك لهذه الاستبانة عبر الإنترنت وإرساله موافقة على المشاركة في هذه الدراسة.

كما أقدر مساهمتك في نشر هذه الاستبانة من خلال حساب تويتر الخاص بك حتى يتمكن الآخرون من المشاركة والمساهمة في هذا الدراسة. إذا كان لديك أي استفسارات أو ترغب في الحصول على معلومات أكثر عن هذه الاستبانة أو الدراسة فيمكنك التواصل مع الباحث.

تحياتي،

محمد سعد السهلي

كلية إدارة الأعمال

جامعة فيكتوريا

[mohammad.alsahli@live.vu.edu.au](mailto:mohammad.alsahli@live.vu.edu.au)

## الصفحة 2 : أسئلة لمعرفة مدى ملاءمة المشارك للدراسة:

1. هل عمرك 18 عامًا أو أكبر؟  نعم  لا ( المنطق: لا اذهب إلى صفحة 3)
2. هل أنت سعودي أو سعودية؟  نعم  لا ( المنطق: لا اذهب إلى صفحة 3)

## الصفحة 3 : عدم ملاءمة المشارك لأغراض الدراسة:

شكرا لتعاونكم، إذا كان عمرك أقل من 18 عامًا، و/ أو لا تحمل الجنسية السعودية، فأنت غير مشمول في هذه الدراسة. إذا كان لديك رغبة في المساهمة في هذه الدراسة، وتبلغ من العمر 18 عامًا أو أكبر فيمكنك نشر ومشاركة الاستبانة مع متابعيك في تويتر.

إذا كنت مهتمًا أيضًا بنتيجة الدراسة، فيرجى التواصل مع الباحث على العنوان:  
.mohammad.alsahli@live.vu.edu.au

## الصفحة 4 : ترحيب / وتعليمات عامة:

شكراً للمشاركة في هذه الدراسة، في هذه الاستبانة سوف يطلب منك الإجابة عن أسئلة لها علاقة باستخدامك تطبيق تويتر للتفاعل مع العلامات التجارية (الماركات) كمستهلك. أدناه تعليمات عامة للإجابة:

- إجاباتك مهمة للغاية بالنسبة لنا، وسيتم استخدامها دون أي معلومات عن هويتك.
- تعتمد الاستبانة على مشاعرك وآرائك ووجهة نظرك، وبالتالي لا توجد إجابات صحيحة أو خاطئة
- يرجى قراءة الأسئلة بعناية، واختيار الإجابة التي تعكس رأيك.
- قد يكون من المفيد تصفح حسابك في تويتر لاستحضار بعض المعلومات المتعلقة باستخدامك لتويتر.

الدراسة تهتم في استخدامك تطبيق تويتر بشكل عام. يرجى قراءة كل سؤال، واختيار الإجابة المناسبة:

3. هل لديك حساب في تويتر؟

نعم

لا

4. ما الجهاز الذي تستخدم للدخول على حسابك في تويتر؟ (يمكنك تحديد أكثر من خيار)

هاتف ذكي (جوال محمول مثل أي فون أو سامسونج،،، الخ)

جهاز لوحي

جهاز محمول (لاب توب)

كمبيوتر مكتبي

غير ذلك (الرجاء ذكرها .....

5. منذ متى وأنت تستخدم تويتر؟

أقل من سنة

من سنة إلى أقل من أربع سنوات.

من أربع سنوات إلى أقل من ثماني سنوات

من ثماني سنوات أو أكثر

6. كم عدد المرات التي تدخل فيها على حسابك في تويتر يومياً؟

لا أتصفح تويتر يومياً

مرة واحدة في اليوم

2-6 مرات يومياً

7-10 مرات يومياً

أكثر من عشر مرات يومياً

دائماً متصل في حسابي في تويتر (أستقبل تنبيهات بشكل مستمر؛ لذلك دائماً أنا متصل في حسابي في تويتر)

## الصفحة 6 : استخدام تويتر

7. عندما تدخل حسابك في تويتر، كم المدة التي تقضيها في التصفح؟

أقل من 15 دقيقة

من 16 إلى 30 دقيقة

من 31 إلى 60 دقيقة

من 61 إلى 90 دقيقة

أكثر من 90 دقيقة

8. ما مدى استخدامك لتويتر من خلال (تغريدة)، (إعادة تغريدة)، (الرد)، (إعجاب)، (إشارة "منشن")؟

لا أشرك أبدًا (القراءة والاطلاع فقط)

عدة مرات في الشهر

عدة مرات في الأسبوع

يوميًا

2-5 مرات في اليوم

أكثر من 5 مرات في اليوم

9. بناء على استخدامك لتويتر، رتب استخدامك لتويتر من الأكثر استخدامًا إلى الأقل؟

التغريد

إعادة التغريد

الرد

إعجاب

رسائل خاصة

إشارة (منشن)

10. تقريبًا، كم عدد الحسابات التي تتابعها في تويتر؟

أقل من 100 حساب

من 100-500 حساب

من 501-1000 حساب

من 1001-2000 حساب

أكثر من 2000 حساب

## الصفحة 7 : استخدام تويتر

11. اختر الدائرة التي تصف بدقة مدى استخدامك لتويتر لكل سبب من الأسباب التالية:

أبداً	نادراً	أحياناً	غالباً	دائماً	
<input type="radio"/>	استخدم تويتر للتفاعل الاجتماعي مع الآخرين				
<input type="radio"/>	استخدم تويتر للبحث عن معلومات تهمني				
<input type="radio"/>	استخدم تويتر لتمضية الوقت				
<input type="radio"/>	استخدم تويتر كمصدر للترفيه				
<input type="radio"/>	استخدم تويتر للاسترخاء وتخفيف الضغوط				
<input type="radio"/>	استخدم تويتر للتعبير عن الآراء والأفكار				
<input type="radio"/>	استخدم تويتر لمشاركة المعلومات مع الآخرين				
<input type="radio"/>	استخدم تويتر كأداة لتسهيل التواصل مع الآخرين				
<input type="radio"/>	استخدم تويتر للتواصل لأنها وسيلة مريحة				
<input type="radio"/>	استخدم تويتر لمعرفة ما يفعله الآخرون				
<input type="radio"/>	أستخدم تويتر لأسباب تعليمية (دراسية)				
<input type="radio"/>	أستخدم تويتر للتعرف على العلامات التجارية (الماركات) والمنتجات (خدمات وبيع)				
<input type="radio"/>	أستخدم تويتر للتجارة ولأغراض العمل				

12. أي من الموضوعات التالية تهتم بها في تويتر؟ (يمكنك تحديد أكثر من خيار).

- أزياء  أخبار  شائعات  ماركات ومنتجات (خدمات وبيع)  سياسة  تعليم  فعاليات  
 مناسبات اجتماعية  العمل  موسيقى  تسلية  أخرى (حدد .....

**الصفحة 8 : العلاقات الاجتماعية مع الذين تتابعهم على تويتر:**

الأسئلة التالية تتعلق بالعلاقات الاجتماعية التي تربطك بالأشخاص الذين تتابعهم في تويتر. يرجى قراءة الأسئلة بعناية واختيار الإجابة المناسبة.

13. من هم الأشخاص أو الفئات التي تتابعها في تويتر؟ (يمكنك تحديد أكثر من خيار)

- |  |  |
|--|--|
| <input type="radio"/> عائلتي                     | <input type="radio"/> جيران            |
| <input type="radio"/> أقارب ليسوا من ضمن العائلة | <input type="radio"/> زملاء عمل        |
| <input type="radio"/> أصدقاء                     | <input type="radio"/> شخصيات عامة      |
| <input type="radio"/> معارف                      | <input type="radio"/> مشاهير           |
| <input type="radio"/> زملاء دراسة                | <input type="radio"/> أخرى (حدد .....) |

14. اختر الدائرة التي تصف بدقة تكرار التواصل مع الذين تتابعهم في تويتر من خلال الرسائل المباشرة ، والردود أو المنشئ:

- دائما اتواصل معهم         أبدا لا اتواصل معهم

15. اختر الدائرة التي تصف بدقة شعورك نحو الذين تتابعهم في تويتر:

- قريب جدا منهم         لست قريبا على الإطلاق منهم

16. اختر الدائرة التي تصف بدقة أهمية الذين تتابعهم في تويتر بالنسبة لك:

- مهمين جدا         غير مهمين على الإطلاق

**الصفحة 9 : العلاقة الاجتماعية مع المتابعين على تويتر:**

تصف العبارات التالية أوجه التشابه والاختلاف بينك وبين الذين تتابعهم في تويتر. يرجى قراءة العبارات بعناية وتحديد الاختيار الذي يمثل وجهة نظرك ورأيك:

17. بشكل عام الذين أتابعهم في تويتر:

لا يفكرون مثلي	<input type="radio"/>	يفكرون مثلي						
لا يتصرفون مثلي	<input type="radio"/>	يتصرفون مثلي						
مختلفون عني	<input type="radio"/>	يشبهونني						
لا يماثلوني	<input type="radio"/>	يماثلوني تماما						

تتعلق العبارات التالية بالأشخاص الذين تتابعهم في تويتر. يرجى قراءتها بعناية وتحديد الإجابة التي تمثل مشاعرك تجاههم:

18. بشكل عام

أوافق بشدة	أوافق	أوافق إلى حد ما	محايد	لا أوافق إلى حد ما	لا أوافق	لا أوافق بشدة	
<input type="radio"/>	أنا أثق في معظم الذين أتابعهم في تويتر						
<input type="radio"/>	أثق بإجراء نقاشات مع الذين أتابعهم في تويتر						
<input type="radio"/>	سيعمل الذين أتابعهم في تويتر كل ما في وسعهم لمساعدة الآخرين.						
<input type="radio"/>	الذين أتابعهم في تويتر يقدمون آراء صادقة.						

## الصفحة 10 : التفاعل مع العلامة التجارية في تويتر:

في هذه الاستبانة ، نقصد بالعلامات التجارية (الماركات) أي حساب في تويتر رسمي يمثل مؤسسة تقدم سلع أو خدمات، لا يشمل ذلك الأفراد أو المشاهير. فمثلاً: ( ملاحظة: هذه فقط أمثلة، يمكنك التفكير في ماركات أخرى)

@McDonaldsKSA ماكدونالدز السعودية

@JarirBookstore مكتبة جرير

@ArabianOud العربية للعود

@Saudi\_Airlines السعودية

@LexusKSA لكزس

@SambaBank مجموعة سامبا المالية

@STC\_KSA شركة الاتصالات السعودية

@ SouqKSA سوق. كم

@noon نون دوت كوم

@Uber\_KSA أوبر السعودية

19. أخذاً باعتبار هذا التعريف للعلامة التجارية، هل تتابع حساب رسمي لعلامة تجارية واحدة على الأقل على تويتر؟  
 نعم  لا (المنطق: نعم، اذهب إلى السؤال 20، لا ، اذهب إلى السؤال 21)

20. يرجى كتابة العلامة التجارية (الماركة) التي تتابعها في تويتر (اكتب ماركة تجارية واحدة فقط)

.....

21. حتى إذا كنت لا تتابع علامة تجارية في تويتر، يرجى اختيار واحدة من العلامات التجارية التي تهتم بها في تويتر وذكرها هنا (اكتب ماركة تجارية واحدة فقط) .....

أرجو الإجابة عن جميع الأسئلة التالية أخذاً في الاعتبار العلامة التجارية التي تتابعها في تويتر أو التي تهتم بها.

22. العبارات التالية تتعلق بمدى تفاعلك مع العلامة التجارية التي حددتها سابقاً، يرجى قراءة العبارات وتحديد الاجابة التي تعكس سلوكياتك فيما يتعلق بتلك العلامة التجارية التي أشرت إلى أنك تتابعها و/ أو تهتم بها في تويتر:

لا أوافق بشدة	لا أوافق	لا أوافق إلى حد ما	محايد	أوافق إلى حد ما	أوافق بشدة	أوافق بشدة
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أستخدم تويتر لطرح أسئلة عن العلامة التجارية (الماركة)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أسعى للحصول على معلومات من مستخدمي تويتر عن العلامة التجارية (الماركة)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أسعى للحصول على مساعدة من مستخدمي تويتر عن العلامة التجارية
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أقرأ تغريدات ذات علاقة بالعلامة التجارية (الماركة) في تويتر
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أشاهد صورًا وفيديوهات ذات علاقة بالعلامة التجارية (الماركة) في تويتر
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أروج وأعزز للعلامة التجارية (الماركة) في تويتر
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أساهم بجذب اهتمام الآخرين بالعلامة التجارية (الماركة) في تويتر
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أشارك في نقاشات بهدف الدفاع عن العلامة التجارية (الماركة) من منتقديها في تويتر
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أذكر أشياء إيجابية عن العلامة التجارية لأشخاص آخرين على تويتر
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	أضع (إعجاب) على تغريدات ذات علاقة بالعلامة التجارية في تويتر

<input type="radio"/>	أشارك أفكاري حول العلامة التجارية (الماركة) على تويتر						
<input type="radio"/>	أشارك محتوى أو تغريدات مميزة حول العلامة التجارية (الماركة) في تويتر						
<input type="radio"/>	أساعد الآخرين بخصوص العلامة التجارية (الماركة) على تويتر						
<input type="radio"/>	أعلق على التغريدات ذات الصلة بالعلامة التجارية (الماركة) على تويتر						
<input type="radio"/>	أبادر بوضع تغريدات ذات صلة بالعلامة التجارية (الماركة) على تويتر						
<input type="radio"/>	أقوم بإعادة تغريد لمشاركات ذات صلة بالعلامة التجارية (الماركة) على تويتر						

### الصفحة 12 : العلاقة مع العلامة التجارية في تويتر:

23. تتعلق العبارات التالية بعلاقتك بالعلامة التجارية (الماركة) التي حددتها سابقا و/ أو تهتم بها على تويتر، أخذا بالاعتبار هذه العلامة التجارية، يرجى قراءة العبارات بعناية وتحديد الاستجابة التي تعكس شعورك:

أوافق بشدة	أوافق	أوافق إلى حد ما	محايد	لا أوافق إلى حد ما	لا أوافق	لا أوافق بشدة	
<input type="radio"/>	أنا أثق بهذه العلامة التجارية (الماركة)						
<input type="radio"/>	أنا أعتمد على هذه العلامة التجارية (الماركة)						
<input type="radio"/>	هذه العلامة التجارية (الماركة) صادقة						
<input type="radio"/>	هذه العلامة التجارية (الماركة) آمنة						
<input type="radio"/>	أفضل هذه العلامة التجارية (الماركة) أكثر من غيرها						
<input type="radio"/>	من العلامات التجارية التي تقدم المنتج نفسه، والخدمة نفسها						
<input type="radio"/>	أنا أحب المنتجات أو الخدمات التي تقدمها هذه العلامة التجارية (الماركة)						

<input type="radio"/>	هذه العلامة التجارية (الماركة) هي العلامة التجارية التي أستمتع باستخدام منتجاتها / خدماتها أكثر من غيرها						
<input type="radio"/>	سوف أشتري من منتجات أو خدمات هذه العلامة التجارية في المرة القادمة.						
<input type="radio"/>	أنا أعتزم (أنوي) الاستمرار في شراء منتجات وخدمات من هذه العلامة التجارية (الماركة) مرة أخرى						
<input type="radio"/>	سوف أنصح الآخرين بالشراء من هذه العلامة التجارية.						

### الصفحة 13 : سلوك صنع القرار وسلوك الشراء:

24. يرجى قراءة العبارات بعناية وتحديد الإجابة التي تعكس سلوكك في اتخاذ القرارات ذات الصلة بالشراء:

لا							
أوافق بشدة	أوافق	أوافق	أوافق	أوافق	أوافق	أوافق	
<input type="radio"/>	لضمان شراء منتج أو خدمة مناسبة ، أهتم وأتابع ما يقوم الآخرون بشرائه واستخدامه						
<input type="radio"/>	إذا كانت لدي خبرة قليلة في منتج أو خدمة، فأنا أسأل أصدقائي عنها						
<input type="radio"/>	أستشير الآخرين لمساعدتي في اختيار أفضل بديل متاح من المنتج						
<input type="radio"/>	أجمع معلومات من الأصدقاء أو العائلة عن منتج قبل شرائه.						

**الصفحة 14 : أسئلة ديموغرافية :**

هذا القسم الأخير من الاستبانة، نذكرك بأن جميع إجاباتك سرية:

25. ما عمرك:

18 – 24

25 – 34

35 – 44

45 – 54

55 – 64

أكبر من 64

26. حدد الجنس:

ذكر

أنثى

27. أين تسكن:

منطقة الرياض

منطقة مكة المكرمة

منطقة المدينة المنورة

منطقة القصيم

المنطقة الشرقية

منطقة الحدود الشمالية

منطقة الجوف

منطقة حائل

منطقة الباحة

منطقة جيزان

منطقة عسير

منطقة نجران

منطقة تبوك

**الصفحة 15 : أسئلة ديموغرافية:**

28. ما أعلى درجة علمية أو مستوى دراسي أكملته:

- أقل من الثانوي
- الثانوية أو ما يعادلها
- دبلوم أقل من جامعي
- بكالوريوس
- دراسات عليا
- أخرى ( انكرها ..... )

29. ما الحالة الوظيفية:

- طالب
- موظف بدوام جزئي
- موظف بدوام كامل
- أعمل لحسابي الخاص
- عاطل
- متقاعد

30. ما الحالة الاجتماعية:

- أعزب/ عزباء
- متزوج/ متزوجة
- منفصل/ منفصلة
- أرمل / أرملة
- أفضل عدم الإجابة.

31. ما دخلك الشهري:

- أقل من 3000 ريال شهرياً
- بين 3000 و 12000 شهرياً
- بين 12001 و 20000 شهرياً
- بين 20001 و 30000 شهرياً
- أكثر من 30000 شهرياً
- أفضل عدم الإجابة.

شكرا لك على قضاء وقتك وجهدك في استكمال هذه الاستبانة

**Appendix 2:**  
**A certified translation of Questionnaire**

**The online survey (English version)**



**Page 1: Introduction/ Cover letter**

Dear Participants,

Welcome and thank you for considering your participation in this online survey. I am conducting this **questionnaire** as part of my PhD studies. The research study investigates customer engagement behaviour on Twitter. You are kindly invited to participate if you are a Saudi citizen who is 18 years old or more. I appreciate your time in completing this **questionnaire**, which will take less than 30 minutes. Your responses will remain confidential and will be used **ONLY** for academic purposes. Please be advised that your participation is voluntary, and by completing this online **questionnaire** and submitting it, you are providing your consent to participate in this study. I also appreciate your support and help for this research by distributing this survey via your Twitter account to your other Twitter users.

For enquiries and further information regarding this research and/or the questionnaire, please do not hesitate to contact me.

Yours sincerely,

Mohammad Alsahli  
[mohammad.alsahli@live.vu.edu.au](mailto:mohammad.alsahli@live.vu.edu.au)  
Victoria University Business School

### **Page 2: Screening Questions**

1. Are you 18 years of age or older?  Yes  No (Logic: No go to page 3)
2. Are you a Saudi citizen?  Yes  No (Logic: No go to page 3)

### **Page 3: Disqualification**

Thank you for your cooperation. We are sorry, if you are younger than 18 years old and/or you are not a Saudi citizen, you do not qualify to take this survey.

However, if you are a Non-Saudi citizen who is older than 18 years of age and still willing to take part in this study, we encourage you to share the questionnaire with your Twitter followers. If you are also interested in the study result, please contact the researcher at mohammad.alsahli@live.vu.edu.au.

### **Page 4: Welcome and General Instructions**

Thank you for taking part in this study. Throughout the questionnaire, you will be asked to answer questions about your engagement behaviour on Twitter. The following are general instructions:

- Your responses are very important to us and will be submitted without any information about your identity.
- The questionnaire is based on your feelings, opinions and views, and as such there is no right or wrong answers.
- Please read the questions carefully and click on the response that reflects what you think.
- It may be helpful to review your Twitter account to refresh your memory.

**Page 5: Twitter Usage**

The study is interested in your general use of Twitter. Please read each of the questions and click on the appropriate answer.

3. Do you have a Twitter account?  Yes  No
  
4. What device do you use to access Twitter? (tick as many as apply)
  - Smart phone
  - Tablet
  - Laptop
  - Desktop
  - Others (Please specify \_\_\_\_\_ )
  
5. How long have you used Twitter?
  - Less than a year
  - Between a year and less than 4 years
  - Between 4 years and less than 8 years
  - 8 years or more
  
6. On average, how many times a day would you check your Twitter account?
  - I don't log on every day
  - Once a day
  - 2-6 times a day
  - 7-10 times a day
  - More than 10 times a day
  - Always connected to my Twitter account (I receive notifications so am always connected to my Twitter account).

**Page 6: Twitter usage**

7. On average, when you check your Twitter account, how many minutes do you spend checking your account?
- Less than 15 minutes
  - 16 to 30 minutes
  - 31 to 60 minutes
  - 61 to 90 minutes
  - More than 90 minutes
8. How often are you active on Twitter? (Tweet/Retweet/Like/Reply/Comment).
- Never (I just read)
  - A few times a month
  - A few times a week
  - Daily
  - 2 - 5 times a day
  - More than five times a day
9. Based on your activities on Twitter, rank the following activities from the most to least used activity?
- Tweet
  - Retweet
  - Reply
  - Like
  - Direct message
  - Mention
10. Approximately, how many Twitter accounts do you follow?
- Less than 100 twitter accounts
  - 100 – 500 twitter accounts
  - 501 – 1000 twitter accounts
  - 1001 – 2000 twitter accounts
  - More than 2000

**Page 7: Twitter usage**

11. Click on the button that best describes how often do you use Twitter for the following reasons?

	Never						All the time
I use Twitter for social interactions	<input type="radio"/>						
I use Twitter to seek out information	<input type="radio"/>						
I use Twitter to pass the time	<input type="radio"/>						
I use Twitter as a source of entertainment	<input type="radio"/>						
I use Twitter for relaxation purposes	<input type="radio"/>						
I use Twitter to express thoughts and opinions	<input type="radio"/>						
I use Twitter for information sharing	<input type="radio"/>						
I use Twitter as a tool to communicate with others	<input type="radio"/>						
I use Twitter to communicate because it is convenient	<input type="radio"/>						
I use Twitter to learn about what others are doing	<input type="radio"/>						
I use Twitter for educational purposes	<input type="radio"/>						
I use Twitter to find out about brands or businesses	<input type="radio"/>						
I use Twitter for work purposes	<input type="radio"/>						

12. Which of the following topics are of the most interest to you in the Twittersphere? (tick as many as apply).

- Fashion  News  Rumors/Gossip  Products, services and brands  Political issues
- Education  Social events  Work  Music  Entertainment
- Others (Specify \_\_\_\_\_)

**Page 8: Social relationship with the following list on Twitter**

The following questions relate to the social relationships that you have with the Twitter users you follow. Please read carefully and select the appropriate response

13. Which of the following group of people do you follow on Twitter? (tick as many as apply)

- |  |   |
|--|---|
| <input type="radio"/> Immediate family members             | <input type="radio"/> Neighbours                  |
| <input type="radio"/> Relatives not in my immediate family | <input type="radio"/> Work or business colleagues |
| <input type="radio"/> Close friends                        | <input type="radio"/> Public figures              |
| <input type="radio"/> Acquaintances                        | <input type="radio"/> Celebrities                 |
| <input type="radio"/> Classmates                           | <input type="radio"/> Others (Specify _____)      |

14. Click on the button that best describes how frequently you communicate via direct messages, replies, or mentions etc with the Twitter users you follow?

- Never                        All the time

15. Click on the button that best expresses how close you feel to the Twitter users you follow?

- Not at all close                        Very close

16. Click on the button that best describe how important the Twitter users you follow are to you?

- Not at all important                        Very important

**Page 9: Social relationships with the Twitter users you follow**

The following statements describe your perceived similarities and differences with the Twitter users you follow. Please read carefully and select the response that represents your view and opinion.

17. For each of the following items, click on the button that best describes what you think about the Twitter users you follow on Twitter:

Don't think like me	<input type="radio"/>	Think like me						
Don't behave like me	<input type="radio"/>	Behave like me						
Are different from me	<input type="radio"/>	Are similar to me						
Are unlike me	<input type="radio"/>	Are like me						

The following statements relate to the Twitter users you follow. Please read carefully and select the response that represents your feelings.

18. Generally speaking,

	Very Strongly Disagree	Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree	Very Strongly Agree
I trust most of the Twitter users I follow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel confident about having discussions with the Twitter users I follow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Twitter users I follow will do everything within their capacity to help others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Twitter users I follow offer honest opinions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Page 10: Interactions with the brand via Twitter**

In this survey, “brand” refers to any official Twitter account that represents an organisation that sells or produces goods and/or provides services, but not individuals or celebrities. For example:

McDonald’s KSA @McDonaldsKSA  
JarirBookstore @JarirBookstore  
ArabianOud @ArabianOud  
Samba Financial Group: @SambaBank,  
Saudi Telecom Company @STC\_KSA  
The Middle East’s online marketplace @ SouqKSA  
Saudi Airlines @Saudi\_Airlines  
Lexus Saudi Arabia @LexusKSA

19. Given this definition for a brand, do you follow at least one official brand account on Twitter?  Yes  No (Logic: Yes go to Q 20, No go to Q 21).

20. Please write the brand that you follow on Twitter: .....

21. Even though if you do not follow a brand on Twittersphere, please think of one brand that you are interested in on Twitter. Write the brand that you are interested in: .....

Please answer all the following questions with reference to the brand you follow or selected.

**Page 11: interactions with the brand via Twitter**

22. The following statements are about your Twitter interactions with your selected brand. Please read carefully and select the response that reflects your behaviours in relation to the brand that you indicated you follow and/or are interested in via Twitter.

	Very Strongly Disagree	Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree	Very Strongly Agree
I ask questions on Twitter about the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I seek ideas or information from Twitter users about the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I seek help from Twitter users about the brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I read posts related to the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I look at pictures/graphs/video related to brand on Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I promote the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to get others interested in the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I actively defend the brand from its critics on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I say positive things about the brand to other people on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I 'like' posts related to the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share my ideas about the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share interesting content about the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I help others about the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I comment on posts related to the brand on Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I initiate posts related to the brand on Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I retweet posts related to the brand on Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Page 12: Relationship with the brand**

23. The following statements relate to your relationship with the brand you nominated earlier and/or you are interested in on Twitter. Please select the response that best reflect how you feel about this brand.

	Very Strongly Disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
I trust this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I rely on this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This is an honest brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand is safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have grown to like this brand more than others offering the same product/service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like the product/services offered by this brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This brand is the one whose product/services I enjoy using most	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will buy products of the brand next time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I intend to keep purchasing products from the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will recommend the brand to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Page 13: About you and your decision-making and purchase behaviour**

24. Please read carefully and select the response that reflects your decision-making and purchase behaviours.

	Very Strongly Disagree	Strongly disagree	Disagree	Not sure	Agree	Strongly Agree	Very Strongly Agree
To ensure that I buy the right product or service, I observe what others are buying and using.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I have little experience with a product or service, I ask my friends about the product or service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consult with other people to help choose the best alternative available from similar products and services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I gather information from friends or family about a product or service before I buy it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Page 14: Demographic Questions**

This the final section of the questionnaire. Please remember that your responses are confidential.

25. What is your age?
- 18 – 24
  - 25 – 34
  - 35 – 44
  - 45 – 54
  - 55- 64
  - 65 and above
26. What is your gender?
- Male
  - Female
27. Where do you live?
- Riyadh Region.
  - Makkah Region.
  - Madinah Region.
  - Qassim Region
  - Eastern Province Region.
  - Northern Borders Region.
  - Jawf Region.
  - Ha'il Region.
  - Bahah Region.
  - Jizan Region.
  - Asir Region.
  - Najran Region.
  - Tabuk Region.

**Page 15: Demographic Questions**

28. What is the highest degree or level of school you have completed?
- Less than a high school diploma
  - High school degree or equivalent
  - Diploma degree
  - Bachelor's degree
  - Postgraduate degree
  - Other (please specify \_\_\_\_\_)
29. What is your current employment status?
- Employed full-time
  - Employed part-time
  - Unemployed
  - Self-employed
  - Retired
  - Student
30. What is your marital status?
- Single
  - Married
  - Divorced
  - Widowed
31. What is your household income per month?
- Less than (SAR) 3,000
  - Between (SAR) 3,000 and 12,000
  - Between (SAR) 12,001 and 20,000
  - Between (SAR) 20,001 and 30,000
  - Over (SAR) 30,000
  - Prefer not to say.

Thank you for your time and effort in completing this questionnaire.

## The online survey (Arabic version)

### الصفحة 1 : مقدمة

عزيزتي المشاركة / عزيزي المشارك:

مرحبًا بك وشكرًا على الاستقطاع من وقتك للمشاركة في هذه الاستبانة، حيث تعتبر هذه الاستبانة جزءًا من بحثي العلمي الخاص بمرحلة الدكتوراه. ويهدف البحث للتعرف على سلوك مشاركة المستهلك في تويتر. أمل منك المشاركة في هذه الاستبانة إذا كنت مواطنًا أو مواطنة من الجنسية السعودية وعمرك 18 سنة أو أكثر، حيث سيستغرق إكمال هذه الاستبانة أقل من ثلاثين دقيقة. علما بأن جميع إجاباتك ستعامل بسرية وسيتم استخدامها فقط للأغراض الأكاديمية. كما أن مشاركتك تطوعية، ويعتبر إكمالك لهذه الاستبانة عبر الإنترنت وإرساله موافقة على المشاركة في هذه الدراسة.

كما أقدر مساهمتك في نشر هذه الاستبانة من خلال حساب تويتر الخاص بك حتى يتمكن الآخرون من المشاركة والمساهمة في هذا البحث. إذا كان لديك أي استفسارات أو ترغب في الحصول على معلومات أكثر عن هذه الاستبانة أو الدراسة فيمكنك التواصل مع الباحث.

تحياتي،

محمد السهلي  
كلية إدارة الأعمال  
جامعة فيكتوريا

[mohammad.alsahli@live.vu.edu.au](mailto:mohammad.alsahli@live.vu.edu.au)

## الصفحة 2 : أسئلة لمعرفة مدى ملاءمة المشارك للدراسة:

1. هل عمرك 18 عامًا أو أكبر؟  نعم  لا ( المنطق: لا اذهب إلى صفحة 3)
2. هل أنت سعودي أو سعودية؟  نعم  لا ( المنطق: لا اذهب إلى صفحة 3)

## الصفحة 3 : عدم ملاءمة المشارك لأغراض الدراسة:

شكرا لتعاونكم، إذا كان عمرك أقل من 18 عامًا ، و/ أو لا تحمل الجنسية السعودية، فأنت غير مشمول في هذه الدراسة. إذا كان لديك رغبة في المساهمة في هذه الدراسة، وتبلغ من العمر 18 عامًا أو أكبر فيمكنك نشر ومشاركة الاستبانة مع متابعيك في تويتر.

إذا كنت مهتمًا أيضًا بنتيجة الدراسة ، فيرجى التواصل مع الباحث على العنوان:  
mohammad.alsahli@live.vu.edu.au

## الصفحة 4 : ترحيب / وتعليمات عامة:

شكراً للمشاركة في هذه الدراسة ، في هذه الاستبانة سوف يطلب منك الإجابة عن أسئلة لها علاقة بمشاركتك في تويتر كمستهلك. أدناه تعليمات عامة للإجابة:

- إجاباتك مهمة للغاية بالنسبة لنا، وسيتم استخدامها دون أي معلومات عن هويتك.
- تعتمد الاستبانة على مشاعرك وآرائك ووجهة نظرك ، وبالتالي لا توجد إجابات صحيحة أو خاطئة
- يرجى قراءة الأسئلة بعناية، واختيار الإجابة التي تعكس رأيك.
- قد يكون من المفيد تصفح حسابك في تويتر لاستحضار بعض المعلومات المتعلقة باستخدامك لتويتر.

**الصفحة 5 : استخدام تويتر:**

الدراسة تهتم في استخدامك بشكل عام لتويتر. يرجى قراءة كل سؤال، واختيار الإجابة المناسبة:

3. هل لديك حساب في تويتر؟  
 نعم  
 لا
4. ما الجهاز الذي تستخدم للدخول على حسابك في تويتر؟ (يمكنك تحديد أكثر من خيار)  
 هواتف ذكية  
 جهاز لوحي  
 جهاز محمول (لاب توب)  
 كمبيوتر مكتبي  
 غير ذلك (الرجاء ذكرها .....
5. منذ متى وأنت تستخدم تويتر؟  
 أقل من سنة  
 من سنة إلى أقل من أربع سنوات.  
 من أربع سنوات إلى أقل من ثماني سنوات  
 من ثماني سنوات أو أكثر
6. في المتوسط، كم عدد المرات التي تدخل فيها على حسابك في تويتر في اليوم؟  
 لا أتصفح تويتر يومياً  
 مرة واحدة في اليوم  
 2-6 مرات يومياً  
 7-10 مرات يومياً  
 أكثر من عشر مرات يومياً  
 دائماً متصل في حسابي في تويتر (أستقبل تنبيهات بشكل مستمر؛ لذلك دائماً أنا متصل في حسابي في تويتر)

**الصفحة 6 : استخدام تويتر**

7. في المتوسط، عندما تدخل حسابك في تويتر، كم المدة التي تقضيها في التصفح؟
- أقل من 15 دقيقة
  - من 16 إلى 30 دقيقة
  - من 31 إلى 60 دقيقة
  - من 61 إلى 90 دقيقة
  - أكثر من 90 دقيقة
8. ما مدى استخدامك لتويتر من خلال (تغريدة)، (إعادة تغريدة)، (الرد)،(إعجاب)؟
- لا أشارك أبداً (القراءة والإطلاع فقط)
  - عدة مرات في الشهر
  - عدة مرات في الأسبوع
  - يومياً
  - 2- 5 مرات في اليوم
  - أكثر من 5 مرات في اليوم
9. بناء على استخدامك لتويتر، رتب استخدامك لتويتر من الأكثر استخداماً إلى الأقل؟
- التغريد
  - إعادة التغريد
  - الرد
  - إعجاب
  - رسائل خاصة
  - إشارة (منشن)
10. تقريبا ، كم عدد حسابات تويتر التي تتابعها في تويتر؟
- أقل من 100 حساب
  - من 100-500 حساب
  - من 501-1000 حساب
  - من 1001-2000 حساب
  - أكثر من 2000 حساب

**الصفحة 7 : استخدام تويتر**

11. اختر الدائرة التي تصف بدقة مدى استخدامك لتويتر لكل سبب من الأسباب التالية:

دائماً	أحياناً	أبداً					
<input type="radio"/>	استخدم تويتر للتفاعل الاجتماعي						
<input type="radio"/>	استخدم تويتر للبحث عن المعلومات						
<input type="radio"/>	استخدم تويتر لتمضية الوقت						
<input type="radio"/>	استخدم تويتر كمصدر للترفيه						
<input type="radio"/>	استخدم تويتر للاسترخاء						
<input type="radio"/>	استخدم تويتر للتعبير عن الآراء والأفكار						
<input type="radio"/>	استخدم تويتر لمشاركة المعلومات						
<input type="radio"/>	استخدم تويتر كأداة للتواصل مع الآخرين						
<input type="radio"/>	استخدم تويتر للتواصل لأنها وسيلة مريحة						
<input type="radio"/>	استخدم تويتر لمعرفة ما يفعله الآخرون						
<input type="radio"/>	استخدم تويتر لأسباب تعليمية						
<input type="radio"/>	استخدم تويتر للتعرف على العلامات التجارية والمنتجات						
<input type="radio"/>	استخدم تويتر للعمل						

12. أي من الموضوعات التالية تهتم بها في تويتر؟ (يمكنك تحديد أكثر من خيار).

- أزياء  أخبار  شائعات  منتجات، خدمات وماركات  سياسة  تعليم  فعاليات ومناسبات  
 اجتماعية  العمل  موسيقى  تسلية  أخرى (حدد ..... )

**الصفحة 8 : العلاقات الاجتماعية مع الذين تتابعهم على تويتر:**

الأسئلة التالية تتعلق بالعلاقات الاجتماعية التي تربطك بالأشخاص الذين تتابعهم في تويتر. يرجى قراءة الأسئلة بعناية واختيار الإجابة المناسبة .

13. من الأشخاص والفئات التي تتابعها في تويتر؟ (يمكنك تحديد أكثر من خيار)

- |  |                                       |
|--|---------------------------------------|
| <input type="radio"/> عائلته                     | <input type="radio"/> جيران           |
| <input type="radio"/> أقارب ليسوا من ضمن العائلة | <input type="radio"/> زملاء عمل       |
| <input type="radio"/> أصدقاء                     | <input type="radio"/> شخصيات عامة     |
| <input type="radio"/> معارف                      | <input type="radio"/> مشاهير          |
| <input type="radio"/> زملاء دراسة                | <input type="radio"/> أخرى (حدد.....) |

14. اختر الدائرة التي تصف بدقة كم مرة تتواصل مع الذين تتابعهم في تويتر من خلال الرسائل المباشرة ، والردود أو المنشئ:

- دائما         أبدا

15. اختر الدائرة التي تصف بدقة مدى قربك من الذين تتابعهم في تويتر :

- قريب جدا         لست قريبا على الإطلاق

16. اختر الدائرة التي تصف بدقة أهمية الذين تتابعهم في تويتر بالنسبة لك:

- مهم جدا         ليس مهماً على الإطلاق

**الصفحة 9 : العلاقة الاجتماعية مع المتابعين على تويتر:**

تصف العبارات التالية أوجه التشابه والاختلاف بينك وبين الذين تتابعهم في تويتر. يرجى قراءة العبارات بعناية وتحديد الاختيار الذي يمثل وجهة نظرك ورأيك:

17. بشكل عام جهات الاتصال في حسابي في تويتر:

لا يفكرون مثلي	<input type="radio"/>	يفكرون مثلي						
لا يتصرفون مثلي	<input type="radio"/>	يتصرفون مثلي						
مختلفون عني	<input type="radio"/>	مماثلون لي						
لا يشبهونني	<input type="radio"/>	يشبهونني						

تتعلق العبارات التالية بالأشخاص الذين تتابعهم في تويتر. يرجى قراءتها بعناية وتحديد الإجابة التي تمثل مشاعرك تجاههم:

18. بشكل عام

أوافق بشدة	أوافق	أوافق إلى حد ما	غير متأكد	لا أوافق إلى حد ما	لا أوافق	لا أوافق بشدة	
<input type="radio"/>	أنا أثق في معظم الذين أتابعهم في تويتر						
<input type="radio"/>	أشعر بالثقة بشأن إجراء نقاشات مع الذين أتابعهم في تويتر						
<input type="radio"/>	سيعمل الذين أتابعهم في تويتر كل ما في وسعهم لمساعدة الآخرين.						
<input type="radio"/>	الذين أتابعهم في تويتر يقدمون آراء صادقة.						

**الصفحة 10 : التفاعل مع العلامة التجارية في تويتر:**

في هذه الاستبانة ، نقصد بالعلامات التجارية في تويتر أي حساب في تويتر رسمي يمثل مؤسسة تبيع أو تنتج السلع و/ أو تقدم خدمات ، لا يشمل ذلك الأفراد أو المشاهير. فمثلاً:

@McDonaldsKSA ماكدونالدز السعودية  
@JarirBookstore مكتبة جرير  
@ArabianOud العربية للعود  
@Saudi\_Airlines السعودية  
@LexusKSA لكزس  
@SambaBank مجموعة سامبا المالية  
@STC\_KSA شركة الاتصالات السعودية  
@ SouqKSA سوق.كم

19. أذا باعتبار هذا التعريف للعلامة التجارية ، هل تتابع حساب رسمي لعلامة تجارية واحدة على الأقل على تويتر؟  
 نعم  لا (المنطق:نعم، اذهب إلى السؤال 20، لا ، اذهب إلى السؤال 21)

20. يرجى كتابة العلامة التجارية التي تتبناها في تويتر .....

21. حتى إذا كنت لا تتابع علامة تجارية في تويتر ، يرجى اختيار واحدة من العلامات التجارية التي تهتم بها في تويتر  
واذكرها هنا .....

أرجو الإجابة عن جميع الأسئلة التالية أخذا في الاعتبار العلامة التجارية التي تتبناها في تويتر أو التي تهتم بها.



**الصفحة 12 : العلاقة مع العلامة التجارية في تويتر:**

23. تتعلق العبارات التالية بعلاقتك بالعلامة التجارية التي حددتها سابقا و/ أو تهتم بها على تويتر، أخذا بالاعتبار هذه العلامة التجارية، يرجى قراءة العبارات بعناية وتحديد الاستجابة التي تعكس شعورك:

لا أوافق بشدة	لا أوافق	لا أوافق إلى حد ما	أوافق غير متأكد	أوافق إلى حد ما	أوافق بشدة
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					
<input type="radio"/>					

**الصفحة 13 : سلوك صنع القرار وسلوك الشراء:**

24. يرجى قراءة العبارات بعناية وتحديد الإجابة التي تعكس سلوكياتك في اتخاذ القرارات ذات الصلة بالشراء:

لا أوافق بشدة	لا أوافق	لا أوافق إلى حد ما	غير متأكد	أوافق إلى حد ما	أوافق	أوافق بشدة
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**الصفحة 14 : أسئلة ديموغرافية :**

هذا القسم الأخير من الاستبانة، نذكرك بأن جميع إجاباتك سرية:

25. ما عمرك:

- 18 – 24
- 25 – 34
- 35 – 44
- 45 – 54
- 55 – 64
- أكبر من 65

26. حدد الجنس:

- ذكر
- أنثى

27. أين تسكن:

- منطقة الرياض
- منطقة مكة المكرمة
- منطقة المدينة المنورة
- منطقة القصيم
- المنطقة الشرقية
- منطقة الحدود الشمالية
- منطقة الجوف
- منطقة حائل
- منطقة الباحة
- منطقة جيزان
- منطقة عسير
- منطقة نجران
- منطقة تبوك

**الصفحة 15 : أسئلة ديموغرافية:**

28. ما أعلى درجة علمية أو مستوى دراسي أكملته:

- أقل من الثانوي
- الثانوية أو ما يعادلها
- دبلوم أقل من جامعي
- بكالوريس
- دراسات عليا
- أخرى ( اذكرها ..... )

29. ما الحالة الوظيفية:

- موظف بدوام كامل
- موظف بدوام جزئي
- عاطل
- أعمل لحسابي الخاص
- متقاعد
- طالب

30. ما الحالة الاجتماعية:

- أعزب
- متزوج
- مطلق
- أرمل

31. ما دخلك الشهري:

- أقل من 3000 ريال شهرياً
- بين 3000 و 12000 شهرياً
- بين 12001 و 20000 شهرياً
- بين 20001 و 30000 شهرياً
- أكثر من 30000 شهرياً
- أفضل عدم الإجابة.



شكرا لك على قضاء وقتك وجهدك في استكمال هذه الاستبانة

**Appendix 3:**  
**Consent Form: English and Arabic Versions**



Dear Participants,

Welcome and thank you for considering your participation in this online survey. I am conducting this questionnaire as part of my PhD studies. The research study investigates customer engagement behaviour on Twitter. You are kindly invited to participate if you are a Saudi citizen who is 18 years old or more. I appreciate your time in completing this questionnaire, which will take less than 30 minutes. Your responses will remain confidential and will be used ONLY for academic purposes. Please be advised that your participation is voluntary, and by completing this online questionnaire and submitting it, you are providing your consent to participate in this study. I also appreciate your support and help for this research by distributing this survey via your Twitter account to your other Twitter users.

For enquiries and further information regarding this research and/or the questionnaire, please do not hesitate to contact me.

Yours sincerely,

Mohammad Alsahli  
mohammad.alsahli@live.vu.edu.au  
Victoria University Business School

- Yes I consent  
 No I do not consent



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عزيزتي المشاركة / عزيزي المشارك:

مرحبًا بك وشكرًا على الاستقطاع من وقتك للمشاركة في هذه الاستبانة، حيث تعتبر هذه الاستبانة جزءًا من بحثي العلمي الخاص بمرحلة الدكتوراه. ويهدف البحث للتعرف على سلوك تفاعل المستهلك مع العلامات التجارية (الماركات) في تطبيق تويتر.

أمل منك المشاركة في هذه الاستبانة إذا كنت مواطنًا أو مواطنة من الجنسية السعودية وعمرك 18 سنة أو أكثر ، حيث سيستغرق إكمال هذه الاستبانة أقل من ثلاثين دقيقة. علما بأن جميع إجاباتك ستعامل بسرية وسيتم استخدامها فقط للأغراض الأكاديمية. كما أن مشاركتك تطوعية ، ويعتبر إكمالك لهذه الاستبانة عبر الإنترنت وإرساله موافقة على المشاركة في هذه الدراسة.

كما أقدر مساهمتك في نشر هذه الاستبانة من خلال حساب تويتر الخاص بك حتى يتمكن الآخرون من المشاركة والمساهمة في هذه الدراسة. إذا كان لديك أي استفسارات أو ترغب في الحصول على معلومات أكثر عن هذه الاستبانة أو الدراسة فيمكنك التواصل مع الباحث.

تحياتي،

محمد سعد السهلي

كلية إدارة الأعمال

جامعة فيكتوريا

mohammad.alsahlil@live.vu.edu.au

أوافق على المشاركة

لا أوافق على المشاركة



بواسطة Qualtrics

**Appendix 4:**  
**A Certified Translation of the Information to Participants Involved in Research: English  
and Arabic Versions.**



(English version)

## Information to Participants Involved in Research

### **You are invited to participate**

You are invited to participate in a research project entitled **Consumer Engagement Behaviour: A Case Study of Antecedents, Outcomes and the Moderating Role of Susceptibility to Informational Influences in Saudi Arabia's on Twittersphere**. This project is being conducted by a student researcher, Mohammad Saad Alsahli as part of a PhD study at Victoria University under the supervision of Dr. Romana Garma from the College of Business.

### **Project explanation**

The aim of this study is to advance the understanding of both the antecedents and outcomes of customer engagement behaviour (CEB) towards brands on Twitter. This study is conducted in fulfilment of the requirements of the degree of Doctor of Philosophy at Victoria University and has been approved by Victoria University Human Research Ethics Committee. You are kindly invited to participate in this research study by completing an online survey which will take less than 30 minutes. All your responses will remain confidential and analysed at an aggregate, not individual level. The collected data will be used for academic purposes only. Although we value and appreciate your voluntary participation, you may choose to withdraw from this study at any time with no obligation. We hope that what we learn from this survey will provide valuable insight to the knowledge of customer engagement behaviour with brands on Twitter. I thank you for your time and cooperation.

### **What will I be asked to do?**

You will be asked to complete an online survey which will take less than 30 minutes. In the survey, you will be asked questions about your experiences, feelings and opinions regarding your engagement behaviour on Twitter.

### **What will I gain from participating?**

I hope that the information obtained from this study will help practitioners, academics and customers to understand customer engagement behaviour on Twitter and its impact on brands and customers and benefit from its proper use. There will be no direct benefit to you for your participation in the study. However, by participating in this survey, you will be contributing to our understanding of customer engagement behaviour. You will also have the opportunity to voice your own opinions and experiences about engaging with brands on Twitter.

### **How will the information I give be used?**

The information collected from the survey will be analysed and written about in the final thesis paper

### **What are the potential risks of participating in this project?**

Your participation in this study involves no risk. The survey includes questions about your opinions and insights. If at any point you feel uncomfortable to answer a question, stop completing the survey entirely.

### **How will this project be conducted?**

The survey will be analysed and studied using a range of quantitative techniques to organize and describe the collected data in order to understand the customer engagement behaviour with brands on Twitter.

**Who is conducting the study?**

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The student researcher: Mohammad Alsahli, [mohammad.alsahli@live.vu.edu.au](mailto:mohammad.alsahli@live.vu.edu.au), +61 456 646 9182  
The study Supervisor: Dr. Romana Garma, [romana.garma@vu.edu.au](mailto:romana.garma@vu.edu.au), +61 3 9919 1515  
300 Flinders Street, P.O. Box 14428, Melbourne, VIC 3000, Australia

Any queries about your participation in this project may be directed to the Chief Investigator listed above.

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email [researchethics@vu.edu.au](mailto:researchethics@vu.edu.au) or phone (03) 9919 4781 or 4461.

(Arabic version)

معلومات للمشاركين في البحث

دعوة للمشاركة في دراسة:

ندعوكم إلى المشاركة في استبانة بحث علمي بعنوان (سلوك مشاركة المستهلك: دراسة حالة عن الدوافع والنتائج والقابلية للتأثر بالمعلومات في تويتر في المملكة العربية السعودية)، والذي يعده الباحث/ محمد سعد السهلي، وهو جزء من دراسته لمرحلة الدكتوراه في جامعة فيكتوريا تحت إشراف الدكتورة رومانا فارما من كلية إدارة الأعمال.

نبذة عن الدراسة:

تهدف الدراسة إلى تعزيز فهم كل من الدوافع ونتائج سلوك مشاركة العملاء تجاه العلامات التجارية في تويتر. وتعد هذه الدراسة من متطلبات درجة الدكتوراه في الفلسفة في جامعة فيكتوريا، وقد تمت الموافقة على إجرائها من قبل لجنة أخلاقيات البحوث الإنسانية والاجتماعية في الجامعة. وتتضمن المشاركة في هذه الدراسة البحثية تعبئة استبانة إلكترونية قد تستغرق تعبئتها أقل من ثلاثين دقيقة. علماً بأن جميع إجاباتكم ستكون سرية، وسيتم تحليلها على مستوى إجمالي، وليس على مستوى فردي، حيث سيتم استخدام المعلومات التي تم جمعها من الاستبانة في الأغراض الأكاديمية والعلمية فقط. ونأمل أن تسهم المعلومات التي يتم جمعها من الاستبانة بتزويدنا بمعلومات قيمة لإثراء المعرفة في مجال سلوك مشاركة المستهلك في تويتر. ونحن إذ نقدر لكم مشاركتكم التطوعية نفيديكم بأنه يمكنكم الانسحاب من هذه الدراسة في أي وقت ترون، ولا يترتب على ذلك أي التزام عليكم. ونشكركم على تعاونكم واقتناعكم جزءاً من وقتكم الثمين للمشاركة في هذه الدراسة.

ما المطلوب مني القيام به؟:

سيطلب منك تعبئة استبانة إلكترونية قد تستغرق تعبئتها أقل من ثلاثين دقيقة. حيث سيتم طرح أسئلة حول خبراتك ومشاعرك، وأرائك المتعلقة بسلوك المشاركة في تويتر.

ماذا سأجني من مشاركتي؟:

أمل أن تساعد معلومات ونتائج هذه الدراسة الأكاديميين والممارسين والعملاء على فهم سلوك مشاركة العملاء على تويتر، وفهم تأثيره في العلامات التجارية والعملاء؛ بهدف تحقيق الاستفادة المثلى من استخدامه. ولن تحصل على فائدة مباشرة من مشاركتك في البحث، ولكن من خلال المشاركة في تعبئة الاستبانة، سوف تساهم في فهمنا لسلوك مشاركة العملاء في تويتر. وستتاح لك أيضاً الفرصة للتعبير عن آرائك وتجاربك حول التعامل مع العلامات التجارية على تويتر.

كيف سيتم الاستفادة من المعلومات التي سأقدمها؟:

سيتم تحليل المعلومات التي سوف يتم جمعها من الاستبانة، وسوف يتم استخلاص النتائج من التحليل لعرضها في التقرير النهائي للبحث.

ما المخاطر المحتملة للمشاركة في هذه الدراسة؟:

مشاركتك في هذا البحث لا تتضمن أي مخاطر محتملة. والاستبانة تتضمن أسئلة حول آرائك وأفكارك، إذا كنت تشعر بعدم الارتياح وعدم الرغبة في الرد على أي من الأسئلة، لك كامل الحرية بالتوقف عن استكمال الاستبانة.

كيف سيتم إجراء هذه الدراسة؟:

سيتم جمع المعلومات من الاستبانات وتحليلها، ودراستها باستخدام مجموعة من الأساليب الكمية والإحصائية؛ وذلك لفهم سلوك مشاركة العملاء تجاه العلامات التجارية في تويتر.

من الذي يجري الدراسة؟:

الباحث: محمد السهلي ، [mohammad.alsahli@live.vu.edu.au](mailto:mohammad.alsahli@live.vu.edu.au) ، +61 456 646 9182 ،  
المشرفة على الدراسة: الدكتورة رومانا فارما ، [romana.garma@vu.edu.au](mailto:romana.garma@vu.edu.au) ، +61 3 9919 1515 ،  
العنوان البريدي: 300 Flinders Street, P.O. Box 14428, Melbourne, VIC 3000, Australia



إذا كانت لديك أي استفسارات حول مشاركتك في هذا المشروع، فيمكنك توجيهها إلى الباحث المذكور أعلاه.  
إذا كانت لديك أي استفسارات أو شكاوى حول الطريقة التي تمت معاملتك بها، فيمكنك التواصل مع أمين قسم الشؤون الأخلاقية التابع للجنة أخلاقيات الأبحاث الإنسانية والاجتماعية في جامعة فيكتوريا على العنوان التالي:

The Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research,  
Victoria University, PO Box 14428, Melbourne, VIC, 8001, email [researchethics@vu.edu.au](mailto:researchethics@vu.edu.au) or phone  
(03) 9919 4781 or 4461.

**Appendix 5:**  
**Ethics Approval Document**

Reply all Delete Junk Block

### Quest Ethics Notification - Application Process Finalised - Application Approved



quest.noreply@vu.edu.au  
Thu 12/09/2019 3:16 PM  
To: romana.garma@vu.edu.au  
Cc: Mohammad Saad S Alsahli; anne-marie.hede@vu.edu.au



Dear DR ROMANA GARMA,

Your ethics application has been formally reviewed and finalised.

- » Application ID: HRE19-133
- » Chief Investigator: DR ROMANA GARMA
- » Other Investigators: PROF ANNE-MARIE HEDE, MR Mohammad Alsahli
- » Application Title: Consumer Engagement Behaviour: A Case Study of Antecedents, Outcomes and the Moderating Role of Susceptibility to Informational Influences in Saudi Arabia on Twittersphere
- » Form Version: 13-07

The application has been accepted and deemed to meet the requirements of the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007)' by the Victoria University Human Research Ethics Committee. Approval has been granted for two (2) years from the approval date; 12/09/2019.

Continued approval of this research project by the Victoria University Human Research Ethics Committee (VUHREC) is conditional upon the provision of a report within 12 months of the above approval date or upon the completion of the project (if earlier). A report proforma may be downloaded from the Office for Research website at:  
<http://research.vu.edu.au/hrec.php>

#### Office for Research - Ethics & Biosafety

Human Research Ethics Ethical Conduct in Human Research. It is required that all research involving or impacting on humans is performed in an ethical manner.

[research.vu.edu.au](http://research.vu.edu.au)

Please note that the Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious events or adverse and/or unforeseen events that may affect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes. Researchers are also reminded of the need to notify the approving HREC of changes to personnel in research projects via a request for a minor amendment. It should also be noted that it is the Chief Investigators' responsibility to ensure the research project is conducted in line with the recommendations outlined in the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007).'

On behalf of the Committee, I wish you all the best for the conduct of the project.

Secretary, Human Research Ethics Committee  
Phone: 9919 4781 or 9919 4461  
Email: [researchethics@vu.edu.au](mailto:researchethics@vu.edu.au)

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**Appendix 6:**  
**Brand profiles**

### Brands Profile

Product Category	Brand Name	Type	Description	Count
Communication services	Saudi Telecom Company (STC)	Local	A Saudi Arabian telecommunications services company	43
	Mobily	Local	A Saudi Arabian telecommunications services company	5
	Zain	Local	A Saudi Arabian telecommunications services company	4
Food and beverage	Almarai Company	Local	A Saudi multinational dairy company	3
	Tania Water Company	Local	A Saudi Beverages & Bottling Company	3
	CHKN	Local	A Saudi Fried Chicken Restaurant	1
	Kudu Restaurant	Local	Saudi fast-food Chain	4
	MacDonald's Corporation	Global	An American fast-food company	11
	RealBurger	Local	Burger Restaurant Chains	1
	Albaik Restaurant	Local	A fast-food Restaurant Chain specializes in fried chicken	6
	Krispy Kreme	Global	An American doughnut company and coffeehouse chain	1
	Baskin-Robbins	Global	An American multinational chain of ice cream and cake specialty shop restaurants	1
	Burger King	Global	An American multinational chain of hamburger fast food restaurants.	4
	Domino's Pizza	Global	An American multinational pizza restaurant chain	4
	Little Caesar	Global	An American multinational pizza restaurant chain	1
	Herfy	Local	A Saudi Arabian multinational fast food restaurant chain	2
	Saadeddin	Local	Arabic Sweets Manufacturing	1
	Alfakherat	Local	A Saudi Sweet Manufacturing	1
	Camel step Coffee Roasters	Local	Saudi Specialty Coffee	2
	Dunkin Dounuts	Global	An American multinational coffee and doughnut company	6
	Elixir Bunn Coffee Roasters	Local	Saudi Specialty Coffee	1
	Caribou Coffee	Global	An American coffee company and coffeehouse chain.	1
	Knoll Coffee Roasters	Local	Saudi Specialty Coffee	1
Caffeine Lab	Local	Caffeine Lab Coffee Roasters	1	

### Brands Profile

Product Category	Brand Name	Type	Description	Count
	dr.Cafe Coffee Starbucks	Local	A Saudi Chain of coffeehouses	1
		Global	An American multinational chain of coffeehouses and roastery	1
	Sulalat Coffee	Local	Saudi Specialty Coffee	3
	4Twins Coffee	Local	Saudi Specialty Coffee	1
Banking and Financial Service	Saudi Investment Bank (SAIB)	Local	Finance and Banking service company	1
	Samba bank	Local	Finance and Banking service company	6
	AlAhli Bank	Local	Finance and Banking service company	1
	Al Bilad Bank	Local	Finance and Banking service company	1
	Bank Aljazira	Local	Finance and Banking service company	1
	Al Rajhi Bank	Local	Finance and Banking service company	5
	The Saudi British Bank (SABB)	Local	Finance and Banking service company	2
	Alinma Bank	Local	Finance and Banking service company	1
Automobile	Mercedes-Benz	Global	A German automotive brand	5
	Bayerische Motoren Werke AG (BMW)	Global	A German automotive brand	1
	Dodge	Global	An American automotive brand	1
	Honda Saudia	Global	A Japanese automotive brand	3
	Jeeb	Global	An American automotive brand	2
	Lexus	Global	The luxury vehicle division of the Japanese automaker Toyota	18
	Hyundai	Global	A South Korean automotive brand	5
	Aljomaih Automotive Company (AAC)	Local	Car dealership	1
	United Motors (UMC)	Local	Car dealership	1
	Salehcars	Local	Car dealership	1
	Liqui Moly	Global	A German brand specializing in oils, lubricants and additives	1
	Ford	Global	An American automotive brand	4
	Audi	Global		1
	Toyota	Global	A Japanese automotive brand	3
	Jaguar	Global	A British automotive brand	2
	Bentley	Global	A British automotive brand	1
Travel and Hospitality	Saudia	Local	Saudi Arabian Airlines	10
	Etihad Airways	Global	An international airline based in United Arab Emirates.	1

## Brands Profile

Product Category	Brand Name	Type	Description	Count
	Nas Air	Local	A domestic and international low-cost airline based in Saudi Arabia	1
	Alfaisalih hotel	Local	A luxury 5-Stats hotel	1
	Boudl Hotels	Local	A Saudi Chain Hotel and Resorts	1
Transportation and Delivery	Hunger station	Local	A Saudi online Food and grocery delivery platform.	7
	MRSOOL	Local	A Saudi platform offer on-demand delivery	1
	Uber Eat	Global	An American online food ordering and delivery platform	1
	Jahez	Local	A Saudi online food ordering and delivery platform	1
	Uber	Global	An American transport company	4
	Careem	Local	A middle brand offering transportation services	1
	Jeeny	Local	A Saudi platform offering transportation services	1
	Aramex	Global	A multinational logistics, courier and package delivery company based in United Arab Emirates.	2
Fashion and beauty	MAC	Global	A Canadian cosmetics manufacturer	4
	Tiffany & Co.	Global	An American luxury jewelry	1
	Oriflame	Global	Oriflame is a Sweden cosmetics manufacturing company	1
	H& M	Global	A Swedish multinational clothing-retail company	4
	Dior	Global	A French luxury fashion brand	7
	Gucci	Global	An Italy luxury fashion house	3
	Chanel	Global	A French luxury fashion	2
	Louis Vuitton	Global	A French fashion house	4
	Nomas	Local	A Saudi brand for Gold & Diamonds	2
	Max Fashion	Global	A multinational clothing-retail company based in United Arab Emirates	1
	Asos	Global	A British online fashion and cosmetic retailer.	1
	Zara	Global	Zara is Spanish clothing and accessories fashion	5
	Armani	Global	An Italian luxury fashion	1
	Adidas	Global	A German sports apparel Brand	4
	Skechers	Global	An American lifestyle and performance footwear brand	1

### Brands Profile

Product Category	Brand Name	Type	Description	Count
	Givenchy	Global	A French luxury fashion and perfume house	1
	Versace	Global	an Italian luxury fashion	1
	Nike	Global	An American sports apparel fashion.	4
	Aldaham Watches	Local	A Leading retailers of luxury watches in Saudi Arabia	1
	Al Majed Oud	Local	Al Majed Oud is a fragrance manufacturer and retailer in Saudi Arabia	2
	Arabian Oud	Local	Arabian Oud is the largest fragrance manufacturer and retailer in Saudi Arabia	5
	Abdul Samad Al Qurashi,	Local	A producer of Arabian Perfumes, Aoud and Amber	1
	trkuoz	Local	A gift brand that focuses on gift accessories.	1
	Deraah	Local	A brand of perfumes, beauty and personal care products.	1
	Dkhoun	Local	an online store specialized in providing luxurious perfumes	1
Retail	Panda	Local	A Saudi Arabian grocery retailing company	6
	Carrefour	Global	A French multinational retail	2
	AlOthaim	Local	A Saudi Arabian grocery retailing company	1
	Jarir Bookstore	Local	A market leader in the Middle East for consumer IT products, Electronics, Office supplies and Books.	34
	eXtra	Local	A Saudi large retailer for consumer electronics and home appliances.	3
	SACO	Local	A provider of home improvement products in Saudi Arabia.	2
	Sheta & Saif	Local	A retailer of electronics and home appliances.	1
Online Retail	aliexpress	Global	An online retail service based in China	1
	AMAZON	Global	An American multinational technology company	1
	Nice one	Global	An online retail specialized in providing care products, makeup and perfumes	2

### Brands Profile

Product Category	Brand Name	Type	Description	Count
	Jollychic	Global	An online retail specialized in providing quality products at reasonable prices	7
	SHEIN	Global	SHEIN is an international B2C fast fashion e-commerce platform	5
	NOON	Local	A Saudi online marketplace	9
	Souq.com	Local	An online market place owned by Amazon	5
	Namshi	Global	Online Retail offering range of products	7
	Nejree	Global	As Saudi online retail for sneakers and sports appeal.	1
	Hadi	Global	An online retail specialized in Coffee and Tea	1
Health and fitness	Fitness Time	Local	A Saudi Gym Chain	2
	GNC	Global	A brand Specializes in health and nutrition related products	1
	iHerb	Global	Online retail company specializes in health and nutrition related products	5
	Dxn	Global	Multinational company manufactures and markets dietary supplements	1
Furniture and Home Appliance	Ikea	Global	A Swedish multinational brand that designs and sells ready-to-assemble furniture, kitchen appliances and home accessories.	3
	AlSaif Gallery	Local	A brand specialized in providing the best home and kitchen accessories and electronics	2
	Qasr Alawani	Local	A retail of home and kitchen accessories	1
Entertainment	Play station Sony	Global	A Japanese video game brand	2
	Nintendo	Global	A Japanese multinational consumer electronics and video game company	1
	Turtle Beach	Global	A global gaming accessory manufacturer	1
Technology	Autodesk	Global	A global leader in design and make technology	1
	Google	Global	An American multinational technology company that specializes in Internet-related services and products	1

### Brands Profile

<b>Product Category</b>	<b>Brand Name</b>	<b>Type</b>	<b>Description</b>	<b>Count</b>
	Microsoft	Global	An American multinational technology company	1
	HUAWEI	Global	A Chinese multinational technology company	6
	Apple	Global	An American multinational technology company	5
	Samsoung	Global	A major multinational manufacturer of electronic components	4
	Xiaomi	Global	A Chinese multinational electronics company	1
Other	Lamarzocoo	Global	An Italian company specializing in high-end espresso coffee machines	1