



An empirical investigation into the behavioural aspects of OBC participation for the brand using the commitment-trust theory of relationship marketing

A thesis submitted for the degree of Doctor of Philosophy

By

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Abstract

Advancements in information technology have shaped the way customers and organisations interact with one another. Online brand communities (OBCs), especially have found their way into 21st century relationship marketing. While research embraces these OBCs for their cost-efficiency and ability for quicker and more intimate interactions, it has not thoroughly examined the procedure through which participation in such OBCs affects the major constructs of relationship marketing. Drawing from the commitment-trust theory and its central concepts of brand trust and brand commitment, this thesis utilizes this theory in a brand community and in an online context. Using probability sampling and a self-administered questionnaire, this study employs a deductive logic to investigate if higher levels of commitment and identification with an OBC translate to increased attachment, identification, trust and commitment toward the brand that the OBC supports. Furthermore, it demonstrates that this OBC-generated commitment is significant to brand managers since it enhances brand equity in terms of positive Word-Of-Mouth, customers' propensity to pay a price premium and oppositional brand loyalty. Similarly, this thesis underlines the importance of understanding the process through which an OBC member gradually develops strong emotional ties with the OBC, as a result of continuous interaction with other OBC members.

Key words: OBC, relationship marketing, OBC identification, OBC commitment, brand attachment, brand identification, brand commitment, brand trust, oppositional brand loyalty, willingness to pay a price premium, WOM, SEM.

Dedication

This thesis is dedicated to my parents, Ioannis and Eleni and my brother Charalampos. Thank you for all the support you have offered me throughout this wonderful long journey!

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Declaration

This is to declare that

- ✓ I am responsible for the work submitted in this thesis.
- ✓ Except otherwise indicated, this thesis represents my own work.
- ✓ This thesis does not contain any materials or data that have been submitted previously for any academic degree or scientific research.
- ✓ All sources have been specifically acknowledged.
- ✓ No harm has been done to any participants of this study. Participation has been entirely voluntary and the collected data will be destroyed after completion of the study.

Marios Pournaris

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1.0 Introduction

“Getting a new idea adopted, even when it has obvious advantages, is difficult. Many innovations require a lengthy period of many years from the time when they become available to the time when they are widely adopted. Therefore, a common problem for many individuals and organizations is how to speed up the rate of diffusion of an innovation.”

Everett Rogers

1.1 Prologue

This chapter introduces the PhD thesis entitled ‘An empirical investigation into the behavioural aspects of OBC participation for the brand using the commitment-trust theory of relationship marketing’. Section 1.2 presents a brief background of the research’s foundation as well as of its motivation. Section 1.2.1 classifies OBC studies while 1.2.2 places the current research within them. Section 1.3 presents the research problem and the approach that this thesis follows to address it. Section 1.3.1 assesses previous studies on OBCs and sections 1.3.2 and 1.3.3 criticise them and provide an insight into the intended theoretical and managerial implications of this thesis accordingly. Section 1.4 outlines the research questions that this thesis attempts to respond to, along with its overall aim and objectives. Section 1.5 presents the methodology that was chosen for carrying out this research. Finally, section 1.6 contains the structure of the thesis which helps the reader navigate through its chapters.

1.2 Research background

The importance of strong customer-brand relationships is well-known and established as having the potential to provide significant monetary gains to brands, if capitalised. Customer-brand relationships are not static but have the ability to influence a variety of brand-related customer attitudes and behaviours. Relationship marketing was born under the conviction that retaining existing customers is much more efficient and economic than constantly attempting to acquire new ones (Anderson, Fornell and Lehmann, 1994; Price and Arnould, 1999). This proposition is not only founded on the high costs of advertising and continually providing people with financial incentives to purchase a certain brand but on the premise that paying attention to customers’ specific needs and personalizing marketing efforts will create a sense of moral obligation from customers towards brands (Verhoef, 2003; Ndubisi, 2007). Several studies have identified an association between successful relationship-building marketing strategies and the attainment of competitive advantage

(Zineldin, 2006), improved seller performance (Reynolds and Beatty, 1999), higher profitability (Bowen and Shoemaker, 1998), brand referrals and recommendations (Kim and Cha, 2002), favourable positioning (Zineldin, 2006), larger market or customer share (De Wulf, Odekerken-Schröder and Iacobucci, 2001; Verhoef, 2003) and commitment or loyalty (Hennig-Thurau, Gwinner and Gremler, 2002; Reynolds and Beatty, 1999). Relationship marketing extends to promoting customer value beyond the transaction or the mere products or services. From a consumer's viewpoint, relationship marketing is not concerned with one-off transactions but with building an environment for a lasting relationship that will allow the customer to reduce the risk associated with purchases (Grönroos, 2004), increase his or her confidence (Berry, 2002) and combat information asymmetry (Crosby, Evans and Cowles, 1990).

Relationship marketing has been widely used by brands to attain customer's loyalty through improved relationships with them. Although some have been successful, many loyalty strategies have failed to live up to their promise, mainly because commitment's predictors and outcomes are largely unknown (Liang and Wang, 2005). Scholars have long tried to deliver comprehensive models to enhance this commitment, realizing that it is, perhaps, customer behaviours' most critical indicator (Gwinner, Gremler and Bitner, 1998, Shamdasani and Balakrishnan, 2000; De Wulf et al., 2001; Hennig-Thurau et al., 2002; Kim and Cha, 2002; De Wulf, Odekerken-Schröder and Van Kenhove, 2003; Lin, Weng and Hiseh, 2003; Hsieh, Chiu and Chiang, 2005; Liang and Wang, 2005; Wang, Liang and Wu, 2006; Palmatier, Dant, Grewal and Evans, 2006).

In a rapidly evolving and changing technological world, OBCs represent the latest trend of the evolution of B2C relationship marketing (Wirtz et al., 2013). Online marketing and OBCs are a growing reality (McKenna, Green and Gleason, 2002) as the importance of Internet in people's lives currently has allowed for unprecedented changes in traditional relationship marketing efforts. As of 2011, over 50% of the world's top brands had created their OBCs (Manchanda, Packard and Pattabhitamaiah, 2012). The academic and managerial focus on OBCs does not have a long history. Arsel and Thompson (2011), Fournier and Avery (2011), Muñoz and Schau (2007), Peñaloza, Toulouse and Visconti (2012) and Pongsakornrungrungsilp and Schroeder (2011) observe a marketing orientation from transaction-based to relationship and community-based. Although research interest in the field of OBCs has been steadily growing in the past 15 years (Laurence, Veloutsou and Morgan-Thomas, 2015) both in practise and in academia, certain aspects of OBC engagement and participation remain significantly under-studied (Fournier and Lee, 2009; Schau, Muniz and Arnould, 2009). Among the first to pay attention and study OBCs were Muniz and O'Guinn (2001) who recognised the necessity of investigating the phenomenon online. OBCs are not only here to stay but they are continuously growing in number and size. These online groupings of like-minded people are facilitated through

the Internet's ability to overcome problems concerning distance and speed of interactions. Several researchers (Berthon, Pitt, Plangger and Shapiro, 2012; Cova and Dalli, 2009; Cova, Dalli and Zwick, 2011; Weijo, Hietanen and Mattila, 2014; Sloan, Bodey and Gyrd-Jones, 2015) posit that virtual brand communities represent the future of relationship marketing because they allow consumers to assume a more active consuming role and affect the production process.

Based on their specific interests such as retail brands and because they want to differentiate themselves from the masses depending on their own personal characteristics, people join social groups to create or enhance their sense of identity (Ahuvia, 2005; Hamouda and Gharbi, 2013; Healy and McDonagh, 2013; Schroeder, 2009). Therefore, they join OBCs that promote products or services that reflect their lifestyle and habits and interact with people having similar preferences and viewpoints. Although this thesis is primarily concerned with the benefits derived from OBC participation from a producer's point of view, it does so by also examining how people benefit from their participation. Central to participation, or membership to most social groups, is therefore the notion of identity (Tajfel, 1979). A sense of identity in an OBC necessarily involves the creation of value for the individual. This value is chiefly being generated through storytelling (De Valck and Kretz, 2011; Hsu, Dehuang and Woodside, 2009; Martin and Woodside, 2011), creating symbolic meanings (Firat and Dholakia, 2006; Kozinets et al., 2004), enacting life narratives (Bardhi and Arnould, 2005; Lee, Woodside and Zhang, 2013), creating and extending themselves (Schembri and Latimer, 2016) and co-creating consumptive meanings (Muñiz and O'Guinn, 2001; Schau et al., 2009) with brands.

Although the literature provides ample evidence about OBCs' impact on branding, this impact's consequence on brand profitability requires further investigation (Zhou, Zhang, Su and Zhou, 2012). Consistent with Dholakia, Bagozzi and Pearo's (2004) view that community identification and commitment may lead to increased consumer intentions and behaviours towards the brand and with Laurence et al.'s (2015) proposition that, despite their marketing importance, OBCs still remain in the background of marketing research, this thesis brings OBCs into the spotlight and regards them as platforms, or tools that have the potential, if utilized correctly, to generate strong and lasting customer-brand relationships that have financial value for the brand. Analytical review of the OBC literature reveals that studies on OBCs can either be quantitative or speculative, with most of them being quantitative. The present study does not aim to build new theory but to attest current theoretical knowledge hence it utilizes a self-administered questionnaire to measure OBC members' emotions, feelings, intentions and behaviours regarding their community and brand.

1.2.1 OBC studies classification

Several studies in OBCs have been carried out during the past decade. A major classification of them is based on whether they explore the rationales people have to join, participate and interact with others in these virtual communities or examine the consequences of this participation. As far as the former are concerned, they probably represent the most significant proportion of research in the area. Scholars have long been trying to recognise the motivators that tempt people to take part in a virtual community and these usually encompass the acquisition of psychological or practical benefits. Zheng, Cheung, Lee and Liang (2014) have found an extremely close link between perceived benefits and active participation. Functional benefits include receiving quality information and expertise about a product or a service (Zhang, Zhang, Lee and Feng, 2015), usability and enhanced skills (Mahrous and Abdelmaaboud, 2016), monetary benefits (Kang et al., 2015) and anticipated extrinsic rewards (Liou, Chih, Yuan and Lin, 2016). An abundance of literature on psychological benefits of OBC participation primarily focuses on hedonic benefits (Kang et al., 2015), the generation of friendships (Zhou, Su, Zhou and Zhang, 2016), self-discovery, social interaction, social enhancement and entertainment (Madupu and Cooley, 2010), reciprocity and knowledge sharing (Liou et al., 2016), social identity enhancement (Bagozzi and Dholakia, 2006), extraversion, need for affiliation and relationship satisfaction and identification (Tsai, Huang and Chiu, 2012).

Another important distinction between OBC studies is based on their initiator. The Internet, especially after the development of Web 2.0 and the social media and the emergence of user-generated content, diminishes the strength of top-down marketing in favour of a bottom-up one where the customer is empowered significantly. Although the popularity of the use of customer-initiated OBCs in relationship marketing is increasing (Gruner, Homburg and Lukas, 2014; Laroche, Habibi, Richard and Sankaranarayanan, 2012), research has shown that customers are still more likely to share their personal details and stories and provide positive WOM in a brand-initiated OBC rather than in a user-hosted one. This happens because of the sense of trust they feel towards a well-established entity such as a brand (Porter, Davaraj and Sun, 2013). Other researchers (i.e. Jang, Ko and Koh, 2007) have found that information and system quality were more important in increasing commitment to user-generated OBCs. This finding however, can be attributed to the entirely-voluntary nature of participation in such OBCs. They have to be searched and found by the consumer hence he or she will have a higher willingness to join those than the firm-hosted ones. Besides, people may join and participate in brand-hosted OBCs to enjoy exclusive benefits such as free content or gifts.

Perhaps the most important classification of post-engagement OBC researches is based on the outcomes of this engagement, or participation. Although potentially interrelated, both OBC-related and brand-related outcomes have been identified as antecedents of participation. OBC outcomes include OBC commitment (Wirtz et al., 2013; Jang et al., 2008; Casaló, Flavián and Guinaliú, 2007), continued community membership (Woisetschlager, Hartleb and Blut, 2008), OBC satisfaction (Woisetschlager et al., 2008; Wirtz et al., 2013), OBC loyalty (Algesheimer, Dholakia and Herrmann, 2005), OBC identification (Stokburger-Sauer and Teichmann, 2013), consciousness of kind (Madupu and Cooley, 2010; Schau and Muniz, 2002), shared rituals and traditions (Muniz and O'Guinn, 2001; Kozinets, 2002) and moral responsibility (McAlexander, Schouten and Koenig, 2002). Accordingly, brand-related outcomes of OBC participation involve brand loyalty (McAlexander et al., 2002; Madupu and Cooley, 2010), brand attachment (Zhang, Zhou, Su and Zhou, 2013; Carroll and Ahuvia, 2006), brand identification (Marzocchi, Morandin and Bergami, 2013; Popp and Woratschek, 2017), brand commitment (De Almeida, Mazzon and Dholakia, 2008; Bagozzi and Dholakia, 2002), brand trust (Jung, Kim and Kim, 2014), brand satisfaction (Brodie, Juric, Ilic and Hollebeek, 2011), higher sales (Blazevic et al., 2013), brand image (Wirtz et al., 2013), oppositional brand loyalty (Decker, 2004) and WOM (Jeong and Koo, 2015).

1.2.2 Placement of the present study

This study belongs to the group of researches that explore OBC-related outcomes of participation to measure customer-brand relationships. Beginning with the more generic ones that connect OBC participation with brand loyalty, this positive causal effect of the former on the latter is quantitatively confirmed by several studies. The most prominent of those were carried out by Casaló, Flavián and Guinaliú (2007), Zheng, Cheung, Lee and Liang (2015), Shang, Chen and Liao (2006), Zhang et al. (2015), Wirtz et al. (2013), Casaló et al. (2010), Habibi, Laroche and Richard (2016) and Dessart et al. (2015).

Several other studies explore OBC participation's effect on brand commitment. Among those are the researches of Kang et al. (2014), Royo-Vela and Casamassima (2011), Pournaris and Lee (2016) and Casaló, Flavián and Guinaliú (2008).

Finally, there is a more specialized body of literature linking active OBC participation and its outcomes (such as community commitment and identification) to brand equity, conceptualized as either a separate construct or a process, made up of several other marketing constructs. and to positive intentions and (to a lesser extent) behaviours toward the brand. This group comprises

studies conducted by Casaló et al. (2010), Mahrous and Abdelmaaboud (2017), Brogi, Calabrese, Campisi, Capece, Costa and Di Pillo (2013), Hu, Zhang and Luo (2016) and Barreda (2014).

This thesis extends those studies that investigate how OBC participation leads to brand loyalty (commitment) and to members' positive intentions, attitudes and finally behaviours that have a financial value for the brand. The following section further presents and analyses the research problem, critically evaluates previous studies and presents the possible theoretical and managerial implications of the present study.

1.3 Research problem

It is evident that healthy and strong OBCs inspire continuous interactions between members and between customers and brands. These interactions result in identification and commitment to the community that in turn provides several benefits to the brand, including loyalty or commitment (Cova, Pace and Park, 2007; Dessart et al., 2015). During the past 15 years, relationship marketing has witnessed an extraordinary increase in interest towards online communities. The traditional branding notion of single consumer (Algesheimer, Dholakia and Herrmann, 2005; Schau, Muniz and Arnould, 2009; McAlexander et al., 2002; Stokburger-Sauer, 2010) is slowly but steadily giving place to a new marketing paradigm which is so strong that it might shift the focus from 'relationship' to 'community' (McWilliam, 2000). This new paradigm does not concentrate on company-to-consumer communications but on consumer-to-consumer's (McAlexander et al., 2002).

Research on OBCs has revealed a strong confirmation of their effects on brand performance. For example, participation, trust or commitment to an OBC have all been found to have strong positive effects on brand loyalty or commitment (Pournaris and Lee, 2016; Jang, Olfman, Ko, Koh and Kim, 2008). It is important for academics and practitioners to understand the process through which relationships generated within the realm of an OBC between members can be translated into improved relationships between the members and the brand (Ahluwalia, Burnkrant and Unnava, 2000). It is also crucial to examine whether these relationships do not only provide positive attitudinal outcomes for the brand but also behavioural ones that have the ability to provide enhanced monetary gains (Stokburger-Sauer, 2010). For this reason, this thesis' theoretical model is not concerned with the reasons that incentivize people to participate in OBCs (such as social, functional or hedonic benefits) which have been heavily studied (Kuo and Feng, 2013; Dholakia, Bagozzi and Pearo, 2004; Wang and Fesenmaier, 2004; Sicilia and Palazon, 2008; Nambisan and Baron, 2009) but with the actual outcomes of this participation.

Even though there are many mediators between OBC participation and customer behaviours that favour the brand, no previous studies are based on relationship marketing and therefore there is no comprehensive understanding of how OBC participation strengthens brand profitability via robust customer-brand relationships. OBCs are essentially relationship-generating tools and according to various researchers (De Wulf et al., 2001; Hennig-Thurau et al., 2002; Kim and Cha, 2002; Shamdasani and Balakrishnan, 2000; Lin et al., 2003; Hsieh et al., 2005; Liang and Wang, 2005; Wang et al., 2006; Palmatier et al., 2006), relationship quality and loyalty represent the most imperative concepts that characterize them. Relationship intentions are theorised as trust and commitment (Morgan and Hunt, 1994; De Wulf et al., 2001) and measure customer-brand relationship strength, while behaviours that are outcomes of these intentions describe the relationship's length and durability (Too et al., Souchon and Thirkell, 2001). This study aims to apply a relationship marketing theory to explain the process of OBC participation leading to positive intentions and ultimately behaviours towards a certain brand. From a practical point of view, its novelty lies on the fact that it examines how this OBC-based brand commitment can have indirect financial value for the brand.

1.3.1 Assessment of previous studies

Much of the related research on OBCs has loyalty or commitment as ending points. Those constructs however make little sense on their own as they are too generic (Morgan and Hunt, 1994) and this is associated with limited managerial implications for marketers. Without specific knowledge as to why OBCs are important in creating favourable behaviours for the brand in terms of direct or indirect profits, their incentives to invest in creating, funding and managing an OBC are fewer. Furthermore, the vast majority of empirical OBC studies focus on the consumer (OBC member) attitudes that are being generated through OBC participation but almost none go above and beyond this to examine whether these attitudes have the potential to generate favourable brand behaviours. In other words, knowledge of whether OBC members that are committed to the brand which is being supported by the virtual community are induced to act on this commitment and exhibit behaviours that boost the brand's profitability is deficient (Wirtz et al., 2013). This thesis uses three major behavioural antecedents of OBC-generated brand commitment that have been heavily understudied in the context of online communities. These are namely oppositional brand loyalty which has been recognized as the most significant "disregarded" behaviour of OBC participation (Muniz and Hamer, 2001, p. 111; Cova and Pace, 2006), willingness to pay a price premium which possibly represents the most profitable behaviour (Persson, 2010) and WOM which is the most visible positive behaviour of OBC participation (Hur et al., 2011; Royo-Vela and Casamassima, 2011).

According to Casaló et al. (2010) and to this thesis' author's best knowledge, the nature of customer-brand relationships generated through active participation, as well their outcomes within an OBC context, remain unclear. Several studies (Zheng et al., 2015; Laroche et al., 2012; Handayani and Wuri, 2016) regard OBC participation as a stationary marketing construct. Although scales measuring OBC participation in isolation do exist, previous research has revealed that the notion of participation can and should be divided into other marketing constructs to be studied more accurately (Zhou et al., 2012). Here, active participation in OBCs is being conceptualized as OBC identification and OBC commitment based on the social identification theory (Tajfel, 1979). Other quantitative studies using those constructs as starting points are either lacking depth, or cannot confirm their hypotheses. For example, Lee, Chang and Yong's (2011) statistical analysis was unable to support a positive direct relationship between OBC participation and brand loyalty or oppositional brand loyalty, urging scholars to identify other marketing constructs which can be used as mediators in these relationships. Besides, other studies (Hur, Ahn and Kim, 2011; Casalo et al., 2007; Jang, Ko and Koh, 2007) directly link OBC participation or its outcomes (i.e. OBC commitment) to brand loyalty and commitment, a notion which is antithetical to Zhou et al. (2012), Park et al. (2007), Thomson, MacInnis and Park (2005) and Carroll and Ahuvia (2006), who suggest that emotions play a crucial role in connecting the dots between OBC and brand bonds.

The sample also presents a significant drawback in several studies. Focusing exclusively on one OBC or industry can produce vital knowledge but with potentially low generalizability. Kim et al. (2008), Zhang et al. (2015) and Zhou et al. (2015) have carried out pioneering researches on the enhancement of customer-brand relationships through OBCs, their insights however only come from a cosmetics OBC, one microblogging site and a male sports cars OBC accordingly. Other researchers have also successfully attempted to build theory in the OBC field (Kamboj and Rahman, 2017; Hajli, Shanmugam, Papagiannidis, Zahay and Richard, 2017; Habibi, Laroche and Richard, 2014; Wirtz et al., 2013), their works however have not been quantitatively validated.

1.3.2 Critique of previous studies and bridging of the theoretical gap

The present study was motivated by Zhou et al.'s (2012) seminal work on the process through which brand relationships are built in OBCs. The authors introduced the notion of brand attachment as a potential mediator in the relationships between brand identification and brand commitment and between brand community commitment and brand commitment. Their paper inspects the mechanisms that lead to the generation of brand commitment, utilizing a proposed theoretical model. Part of their conceptual model is chosen for this study as it explains the relationship-

generation process between customers and brands within an OBC based on the social identification theory (Tajfel, 1979). According to the theory, people can identify and commit with multiple objects, an idea which pragmatically explains the generation of identification and commitment to an entity (the brand), as an outcome of identification and commitment to a social group (the OBC). The model is extended because the attitudinal construct (brand commitment) has no link to any behavioural ones. Unlike Zhou et al.'s (2012) proposition, the present study suggests that the generation of brand commitment is just one of the outcomes of participating in an OBC and a first step towards building positive behaviours which further enhance the brand's profitability. Oppositional brand loyalty, willingness to pay a price premium and WOM are added as the behavioural consequences of brand commitment and the commitment-trust theory of relationship marketing (Morgan and Hunt, 1994) is embedded in the model as it is divided into three parts: antecedents of relationships, trust and commitment, and outcomes of relationships. The selection of this particular theory was also based on the research, which has provided support for it in a variety of contexts. These include online marketing (Mukherjee and Nath, 2007), online retailing (Elbeltagi and Agag, 2016), consumer psychology (Hashim and Tan, 2015), community behaviour (Wang, Wang and Liu, 2016) and international business (Friman, Garling, Millett, Mattsson and Johnston, 2002).

There are some further shortcomings of Zhou et al.'s (2012) study. It uses perceived community-brand similarity as an important moderator in the relationships between OBC-related and brand-related outcomes (OBC commitment → brand commitment, OBC identification → brand identification and OBC commitment → brand attachment). These moderating effects however are either not supported by the statistical analysis ($\beta=.02$), or when they are, community-brand similarity only has minimal effects ($\beta=.14$ and $\beta=.07$).

Although Zhou et al. (2012) successfully tested and confirmed their model, they advise caution regarding the findings' generalizability. Their sample came exclusively from one OBC where 97% of its members were male (a male car club). The authors call for a more balanced and diverse sample from OBCs belonging to various industries to overcome the limitations that such a narrow sample structure imposes. The present thesis aims to expand the scope of the original conceptual model not only through developing it further by adding more constructs but also by testing it using a larger and far more varied sample.

There are several other recent studies that categorise themselves as examining the effects of participating in an OBC to brand equity, brand intentions or brand behaviours. The most significant ones are summarized here, faithful to section 1.2.2.

Casaló et al. (2007) have quantitatively measured OBC participation's impact on brand loyalty. This relationship however is not supported by any relevant RM or consumer psychology theories hence this important finding needs further validation. Furthermore, their study focuses exclusively on communities that are related to free software so generalizability of the findings could be problematic. The same is true for their subsequent work in 2010 which also brings some behavioural aspects of OBC participation such as WOM into the spotlight. Zheng, et al. (2015) have also provided useful insights into the generation of brand loyalty through OBC participation-generated OBC commitment. Again, however, there is a lack of theoretical foundation in the synthesis of their theoretical model. Additionally, although placed in the field of studies related to brand equity, limiting the notion to brand loyalty only seems deficient. The power of other constructs that predict consumers' behaviour, especially those of WOM and brand commitment, require more attention according to the authors. Shang et al. (2006) have used the construct of perceived attitude, defined as participants' perceptions towards the messages in the OBC, as a moderator in the relationship between OBC participation and brand loyalty to overcome the theoretical limitations of previous studies. Nevertheless, their statistical analysis did not provide support for the proposition that perceived attitude influences that relationship, thus failing to explain the loyalty-generation process through OBC participation. Work carried out by Zhang et al. (2015) was also concerned with OBC participation's impact on brand loyalty. Yet again, the sample of their study (one microblog site in China) presents a severe barrier to the generalization of their findings. What is more, the very small variance explained in brand loyalty means that vital constructs are missing from their model. Habibi et al. (2016) attempt to conceptualize OBC participation as OBC identification and link it to brand loyalty. This however secludes other key intentional or behavioural aspects of participation (such as commitment) from playing any role. The same is true for Dessart et al.'s (2015) research. Their study provides some very valuable understandings of OBCs as it breaks down OBC engagement into its value, social and brand-related components. Their findings however are not quantitatively supported but aim at building new theory. Perhaps one of the most influential studies in the field of OBCs is the one carried out by Wirtz et al. in 2013. They theorize a connection between OBC engagement, or participation, and OBC-related outcomes, brand outcomes and equity outcomes. Their model suggests that OBC participation positively affects OBC-related outcomes (such as OBC commitment), which in turn affect brand-related (brand commitment) ones that positively influence brand loyalty. For all its merits, this study is speculative and some of its components are being tested quantitatively here.

Consistent with the sequence of studies mentioned in section 1.2.2, four studies linking OBC participation and brand commitment were identified in the literature and recognised as the most

noteworthy. Apart from the fact that this thesis does not treat brand commitment and brand loyalty as distinct marketing constructs, something which is reflected in their statistical analysis, Pournaris and Lee (2015) also fail to incorporate any behavioural aspects into their conceptual model. Furthermore, Casaló et al. (2008) find empirical support for the causal effect of OBC participation on brand commitment but, as brand commitment and brand loyalty overlap, this essentially is a repetition of their 2007 study. Their findings are also very similar hence their work provides limited advancement in the knowledge of OBC participation's outcomes. Admittedly, Royo-Vela and Casamassima (2011) have provided the epistemic community with a quite comprehensive conceptual model which tests OBC participation's effects not only on brand commitment but also on positive WOM. Their study however is associated with several limitations. First, they focus on only one OBC, ZARA, which follows a very unique business model thus generalising results should be done with caution. Second, they were unable to confirm a positive relationship between OBC participation and both WOM and brand commitment. This possibly implies that these relationships are not direct or straightforward and require the presence of mediators.

The last relevant group of studies examine the relationship between OBC participation (measured as a separate construct or as a group of several) and brand equity or planned behaviour (the relationship's impact on attitudes and behaviours). Although the majority of such studies are conceptual (Casaló et al., 2008) there are a few which provide quantitatively tested theoretical models. Mahrous and Abdelmaaboud (2017) provide ample evidence of OBC participation's causal effect on brand equity but their study only uses an OBC from Facebook. Results might differ when other types of virtual communities are considered. This is also a limitation concerning the work of Brogi et al. (2013). While their conceptual model is confirmed in its entirety, providing evidence for the positive relationship between participation in virtual brand communities and brand loyalty, brand awareness and brand associations, their sample came wholly from the luxury fashion context which is a business area with very distinct characteristics. Hu et al. (2006) also successfully associate OBC participation consumer value. The sample however comes from a single OBC (Bilibili) in China and this poses a threat to the ability of generalizing findings since, although China is still a collectivist society, young Chinese, who are the vast majority of Bilibili members, are internet-immersed and likely to show off (Mathwick, Malhotra and Rigdon, 2001).

Finally, this study recognises the existence of emotions, referred to as brand attachment, to have an indispensable mediating effect on OBC and equity-related relationships. The only study which uses this construct to mediate the causal effect of OBC participation on brand commitment or loyalty is Zhou et al.'s (2012), which is however associated with several limitations scrutinised already.

1.3.3 Bridging the managerial gap

This study goes beyond a mere exploration of the dynamics within an OBC which is usual in similar researches, to using a well-established relationship marketing theory (the commitment-trust theory) to explain why these dynamics should be considered important by practitioners and how they can utilize them to increase the value of their brands. There is only a limited number of studies that attempt to empirically explain how OBCs can actually create brand profitability or generate positive brand behaviors. Furthermore, wherever evidence of this exists, it is mostly very context specific (Chou, 2014) or speculative. The vast majority of recent studies in the field (Sullivan and Davis Mersey, 2015; Kim, 2015) do not distinguish between online and offline communities, or they are not empirical (Wirtz et al., 2013). OBCs represent the most contemporary form of brand communities. Online and offline brand communities present several technical and cognitive differences (Hede and Kellett, 2012) hence they should not be treated by marketers in a similar way.

Studies that focus on brand profitability which sources from OBCs tend to concentrate heavily on the notion of brand loyalty (Brogi et al., 2013), disregarding profitability's multidimensionality (see Keller, 1993; Aaker, 1991). This thesis in contrast, takes a less conservative approach by introducing several intentional and behavioral aspects as outcomes of strong customer-brand relationships. As discussed in Chapter Two, brand commitment and brand loyalty do not present significant conceptual differences when juxtaposed, they are therefore treated as being the same in this thesis. This allows for greater research maneuvering and the introduction of constructs that have not been habitually linked to OBC research but are very important in the brands' profitability as parts of their value-creation processes and strategies.

1.4 Research questions, aim and objectives

This thesis aspires to address the research problem by answering two fundamental questions:

RQ1. What is the impact of OBC participation on members' behaviours towards the brand in terms of oppositional brand loyalty, willingness to pay a price premium and Word-Of-Mouth communications?

Although research in the field of OBCs has shown that participation in virtual brand communities does have an apparent effect on members' attitudes or intentions towards the brand (Royo-Vela and Casamassima, 2011), there is a deficiency in our understanding of whether the members are induced to 'act' on these attitudes and develop behaviours that are beneficial for the brand (Stokburger-

Sauer, 2010; Wirtz et al., 2013). Those behaviours are conceptualised as oppositional brand loyalty, willingness to pay a price premium and WOM and have a significant financial value for the brand.

RQ2. What is the mediating role of brand trust and brand commitment between the antecedents and the outcomes of customer-brand relationships in OBCs?

The present thesis utilises the commitment-trust theory of relationship marketing (Morgan and Hunt, 1994) in a novel fashion (online) to mediate the antecedents and the outcomes of customer-brand relationships. The second research question aims at testing whether OBCs in B2C markets adhere to the general relationship marketing principle that strong relationships between the brand and customer lead to the development of commitment and trust between them, which later produces attitudes and (ultimately) behaviours that are favourable to the brand.

The aim of this research is to:

Provide an empirical investigation into the behavioural aspects of OBC participation for the brand using the commitment-trust theory of relationship marketing

The sub-objectives of this thesis are to:

- 1) Confirm the mechanisms, including the intermediate ones, that contribute to improved customer-brand relationships within an OBC.
- 2) Critically examine the concepts of identification, commitment and trust and elaborate on their interrelationships.
- 3) Develop, based on the most current literature, a conceptual framework that is theoretically sound and able to link any attitudes that stem from OBC participation, to actual behaviours that boost a brand's profitability.
- 4) Apply Morgan and Hunt's (1994) commitment-trust theory to an online context.
- 5) Quantitatively test the conceptual model and assess its generalizability.
- 6) Analyse the data and discuss its theoretical and managerial implications.
- 7) Deliver a solid foundation for future research.

1.5 Research methodology

A quantitative method to collect and analyse data was selected for this study which includes confirming the causal relationships between relationship marketing constructs. An online self-

administered questionnaire was employed to collect the necessary data. This is a quick, efficient and inexpensive method of collecting large amounts of data (McCelland, 1994; Churchill, 1995, Sekaran, 2000).

The questionnaire is comprised of a total of 52 items, six of which are demographic questions. The remainder, 46 items, measure the thesis' constructs. More precisely, OBC identification has 4 items, which is also true for OBC commitment and brand identification. Ten items are used to measure brand attachment, five brand trust, six brand commitment, five Word-Of-Mouth and four willingness to pay a price premium and oppositional brand loyalty accordingly. Except for the demographic questions, all other items use 7-point Likert scales with anchors ranging from (1 = strongly disagree) to (7 = strongly agree). All items were extracted from scales that have previously been validated, a three-stage pre-test was used however to assess their clarity and appropriateness for the study.

Active members of OBCs were used as this thesis' sample. Active members were considered those who engaged in any type of interaction with other members during the observation period. All ten communities of focus have been observed for a period of five months and all members who started a thread or responded to other people's queries were contacted via a private message and were forwarded the survey. These OBCs are all brand-initiated, have more than 10000 members and concern brands operating in oligopolistic markets in the UK. Brand-initiated OBCs were chosen because, unlike most customer-initiated ones, they have a clearer structure, leadership and moderation system (Fertik and Thompson, 2010), making them easier to study. Oligopolistic, non-luxury markets, have been chosen because this thesis sets out to examine consumers' choices when alternatives are available. Very competitive markets are very sensitive to price changes hence they were not chosen since consumers are likely to turn to alternatives if a brand increases its prices. On the other hand, more concentrated, or luxury markets, either imply that the consumer has limited choice or that he or she is willing to pay more anyway (Parguel, Delécolle and Valette-Florence, 2015; Godey, Manthiou, Pederzoli, Rokka, Aiello, Donvito and Singh, 2016). Selection of the research setting is very important (Bernard, 2000) as it represents the main limitation for most social researches (Whetten, 1989). Depending on its setting, a research allows or restricts the researcher to analyse and examine proposed theories, take notes of social phenomena, draw conclusions and generalize outcomes (Doktor, Tung and Von Glinow, 1991). Based on the above, the UK setting was selected as it is deemed representative of the Western consumer, because English is the main spoken language on these OBCs and because no membership bias (cultural, religious or based on ideology) was observed. A total of 4762 questionnaires were distributed to members of the aforementioned ten OBCs, 1044 were returned and finally 306 were used.

The Statistical Package for the Social Sciences (SPSS) was used for descriptive analysis of the sample and for screening the collected data. Structural equations modelling (SEM), which is a multivariate data analysis method widely used for instrument validation and model testing in social sciences, was then performed using AMOS 23 to test the hypothesized relationships between the theoretical model's constructs. More specifically, SEM was conducted in two stages (Anderson and Gerbing, 1988). The first one aimed to validate the constructs through specifying the causal relationships between observed (items) and unobserved, or latent (constructs) variables. The second stage statistically tested the hypotheses and the relationships between the model's constructs.

1.6 Research structure

An overview of the thesis which will assist the reader in navigating through its chapters can be found in this section. The present thesis is comprised of seven chapters, a reference section and an appendix.

Chapter One prologues the thesis by providing a brief background and motivation for the study. This is primarily grounded on relationship marketing becoming topical again in our digitalized era, mainly through the evolution of OBCs. It then provides a detailed summary of the research problem, dividing it into theoretical and practical and particularly focusing on the research gap which this thesis bridges. The research questions, aim and objectives of the study, as well as the research methodology and structure, are also presented here.

Chapter Two dives into the literatures of OBCs and relationship marketing and delivers a detailed review of the main theoretical features of this thesis. It particularly draws on the social identification and commitment-trust theories to explain how relationships between customers and brands are generated in an OBC context. Significant attention is given to accurately and critically describing the constructs that are relevant to the thesis' conceptual model. These constructs are OBC identification, OBC commitment, brand identification, brand commitment, brand trust, brand attachment, willingness to pay a price premium, WOM and oppositional brand loyalty.

Chapter Three utilizes the insights acquired from the literature review to design the conceptual model proposed in this thesis. The model is comprised of 14 hypotheses. 12 of them concern underlying relationships between marketing constructs, while two test the mediating effect of brand attachment in the relationships between brand identification and brand commitment and OBC commitment and brand commitment. The chapter begins with an overview and explanation of the model, while its vast majority is concerned with critically scrutinizing the most relevant literature to

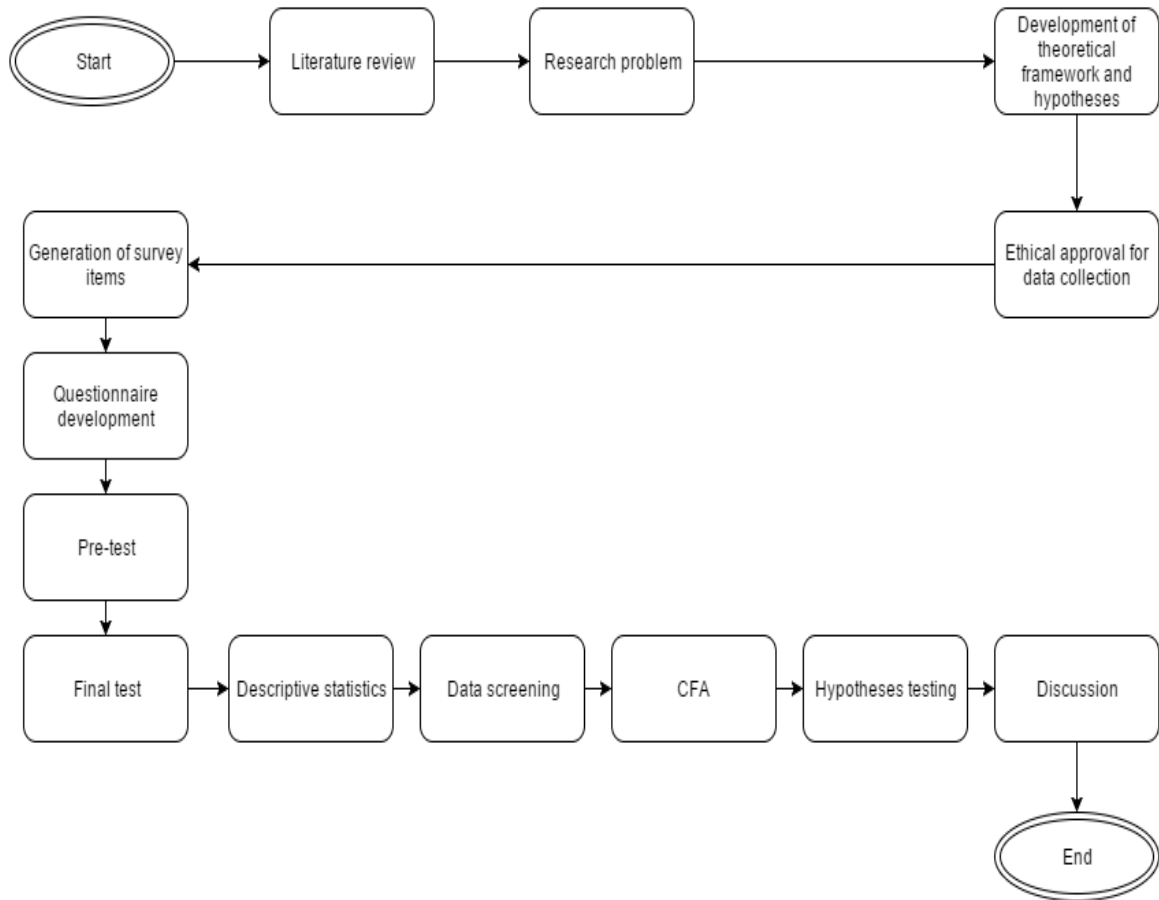
provide justification for the causality of its constructs. More specifically, the first part of the model explains the intermediate mechanisms within an OBC that are responsible for the generation of customer-brand relationships. The second part utilizes Morgan and Hunt's (1994) commitment-trust theory to define relationship quality and examine if and how the aforesaid relationships improve this quality. Finally, the third part of the structural model is concerned with the equity a brand receives from its committed customers.

A comprehensive analysis of the methodology which was used for this study is presented in *Chapter Four*. It begins with an explanation of the research philosophy, assumptions and design. The phases of pre-test and final survey are explained in detail to justify the selection of a quantitative method as well as of the self-administered questionnaire and SEM. Significant emphasis is given on the techniques and steps taken to analyse the collected data and the various stages of the analysis, from data cleaning to statistically interpreting it. This chapter also predefines the cut-off values of data analysis, providing a practical framework for data interpretation.

Chapter five provides a comprehensive analysis of the outcomes of data analysis and is divided into two parts. The first one discusses the steps of CFA that were followed to assess the fit of the data collected to the conceptual model, as well as the measures that were taken to improve the model fit. It also involves some generic demographics of the respondents and descriptive statistics. The second part attests whether the data explains the model thus confirming its hypotheses.

Chapter six offers a detailed discussion on the implications of the data that has been statistically interpreted, discoursing them in parallel to prominent existent studies. Theoretical and managerial contributions are also deliberated here, as well as likely limitations. *Chapter seven* concludes this thesis by summarizing its findings and providing directions for further future research.

Figure 1: Research design



2.0 Literature review

“Knowledge comes, but wisdom lingers. It may not be difficult to store up in the mind a vast quantity of facts within a comparatively short time, but the ability to form judgments requires the severe discipline of hard work and the tempering heat of experience and maturity.”

Calvin Coolidge

2.1 Introduction

OBCs’ importance to both brands and customers has increased significantly during the past decade. OBCs are an excellent tool for differentiating and distinguishing a brand from its competitors. All brands engaging in relationship marketing activities rely heavily on identity, commitment and trust. Within OBCs, brands and customers co-create value, experiences, ethics and identities. Brand communities improve their members’ experience with suppliers, while the brands gain intangible property that may be translated into future earnings.

Since this thesis quantitatively tests a proposed conceptual model, its literature review chapter focuses heavily on the constructs and theories associated with the model and on critically appraising and presenting current knowledge in the field. A literature review, according to the author’s perceptions, should be a targeted, organised and critical appraisal of published attempts to describe a phenomenon and not a mere descriptive catalogue of the existing knowledge on a subject. By concentrating on publications that are most relevant to the scope of the present thesis, the literature review aims to avoid ‘waffling on’ but presenting what we know, what we don’t, what has been tried and whether it has worked in a systematic manner, in order to provide a firm foundation for the generation of new knowledge.

Literature review in this thesis is generally thematic, organised around topics that are relevant to the conceptual model and important to understanding underlying concepts, theories and methodologies concerning OBCs, relationship marketing and its main components. The structure of the chapter is a funnel through which information and notions are derived from higher-level concepts. The tables presented in this chapter present relevant studies and their outcomes in a chronological order for the convenience of the reader. For each of the chapter’s sections, specific emphasis has been given to including all relevant, significant literature, organising it in a coherent and logical manner and appraising it, not dogmatically but critically. In addition, to ensure the information is pertinent, the review excludes studies before 1990, apart from those that are still widely cited.

The review consists of six sections. The second one provides an overview of the evolution of relationship marketing which is the background to this study, while the third offers a detailed analysis of the concept of a brand community and its advancement from the offline to the online context. Section four, presents each of the conceptual model's constructs providing justification of its use based on its importance to OBCs. A summary of the whole chapter is presented in the final section.

2.2 Relationship marketing

The present thesis is largely concerned with customer-brand relationships and with providing a rationale as to why this process is important for both brands. It is thus important to provide a detailed overview of what relationship marketing is, how it has evolved over time and why brands should invest heavily in generating, maintaining and strengthening relationships with their customers.

Relationship marketing (RM) is a complex and diverse concept which has caused much confusion among scholars and practitioners. A widely-accepted definition of it still does not exist and it is open to different interpretations. Some of these interpretations include predictive modelling, customer relationship management, post-sale support and loyalty programmes (Sheth, 2017). Table 1 summarises the most influential attempts to define RM to date in chronological order. The evolution of the Internet and mobile telephony and smartphones has made communications between brands and end customers easier than ever, further reinforcing this confusion. While there is a general agreement that successful RM builds lasting customer-brand relationships increasing the brand's equity and profitability (Crosby, Evans and Cowles, 1990; Palmatier et al., 2006), empirical evidence of the opposite also exists (De Wulf, Odekerken-Schroder and Iacobucci, 2001). Several empirical studies have provided mixed insights on how useful RM is for brands (eg. Colgate and Danaher, 2000). A principal reason for this conflict is the disagreement over what RM entails, or should entail. Some research has revealed that trust and commitment are the focal constructs around which RM should evolve (Morgan and Hunt, 1994), while other focuses more on customer satisfaction (Kumar, Scheer and Steenkamp, 1995) and gratitude (Palmatier et al., 2006). The present thesis adopts Morgan and Hunt's (1994) proposition that all relationships are centred around trust and commitment and uses them as the core elements of RM identifying several of their antecedents and outcomes.

Table 1: Most cited definitions of relationship marketing

Definition	Context	Source
<i>"Attracting, maintaining and enhancing customer relationships"</i>	Services	Berry (1983)
<i>"To establish, maintain, and enhance relationships with customers and other partners, at profit, so that the objectives of the parties involved are met. This is achieved by a mutual exchange and fulfilment of promises."</i>	General	Grönroos (1990)
<i>"The dual focus of getting and keeping customers."</i>	Services	Christopher et al. (1991)
<i>"Identify and establish, maintain and enhance, and when necessary, also terminate relationships with customers and other stakeholders, at a profit, so that the objectives of all parties involved are met. This is done by a mutual exchange and fulfilment of promises."</i>	General	Grönroos (1994)
<i>All marketing activities directed toward establishing, developing and maintaining successful relational exchange.</i>	B2B	Morgan and Hunt (1994)
<i>"Strategies that enhance profitability through a focus on the value of buyer-seller relationships over time."</i>	Services	Palmer (1994)
<i>"Relationships, networks, and interaction."</i>	General	Gummesson (1996)
<i>"Ongoing process of engaging in cooperative and collectivised activities and programs with immediate and end-user customers to create or enhance mutual economic value at reduced cost."</i>	B2C	Parvatiyar and Sheth (2000)
<i>"The key competitive strategy that business organizations need to stay focused on the needs of customers and to integrate a customer-facing approach throughout the organization."</i>	B2C	Brown (2000)
<i>"The dynamic process of managing a customer-company relationship such that customers elect to continue mutually beneficial commercial exchanges and are dissuaded from participating in exchanges that are unprofitable to the company."</i>	B2C	Bryan (2002)
<i>"A process consisting of four stages, which include interaction, analysis, learning, and planning."</i>	B2B	Sharp, 2003
<i>"It is a combination of people, processes, and technology that seeks to understand a company's customers. It is an integrated approach to managing relationships by focusing on customer retention and relationship development."</i>	Online	Chen and Popovich (2003)
<i>"It is a comprehensive strategy and process that enables an organization to identify, acquire, retain, and nurture profitable customers by building and maintaining long-term relationships with them."</i>	B2C	Sin et al. (2005)
<i>"It is a process for developing innovation capability and providing a lasting competitive advantage."</i>	Online	Ramani and Kumar (2008)
<i>"It is being viewed as strategic, process oriented, cross-functional, and value-creating for buyer and seller and as a means of achieving superior financial performance."</i>	Online	Lambert (2010)

Source: The author

For many scholars, non-contemporary business relationships date to the pre-industrial age (Sheth and Parvatiyar, 2000; Gummesson, 1999), while Bagozzi (1978) was among the first to give relationships a central role in marketing (Bejou, 1997). A particularly influential work in the field of RM was carried out by Arndt (1979) who focused on the development and sustainment of long-term

business partnerships between consumers and brands in domesticated markets. Numerous later researchers used this piece of work in the 1990s to update and reinvigorate it to be applied to the, then, current marketing developments (Crosby et al., 1990; Webster, 1992; Grönroos, 1994; Gummesson, 1994; Morgan and Hunt, 1994; Palmer and Bejou, 1996; Berry, 1995; Sheth and Parvatiyar, 1995; Wilson, 1995; Hennig-Thurau and Klee, 1997; Gummesson, 1999). RM was therefore back in the spotlight, widely characterized as the “new-old” aspect of marketing (Berry, 1995).

The birth of relationship marketing however, in the form in which it is viewed presently, dates back to 1981 during the global economic turmoil (Sheth, 2017). The fundamental focus on competition, market share and growth was shifted towards more long-term investments such as building strategic partnerships with customers (Sheth and Parvatiyar, 2000) and with suppliers (Williamson, 1979). This paradigm shift involved moving away from transactional and competitive advantage marketing approaches to employing strategies of cooperation (Sheth and Parvatiyar, 2000), trust and commitment (Morgan and Hunt, 1994) and understanding the lifetime value of customers (Håkansson and Snehota, 2000). Sheth (2017) proposes that RM is an amalgamation of business practices that turn the “share of wallet to share of heart”. Consequently, RM efforts should focus on adding emotional meaning to the consumption process. Consumers should be viewed as human beings who have needs, expectations and aspirations instead of mere paying customers. Furthermore, it implies a sense of understanding of consumer needs and making the brand integral to the consumers’ life. In other words, RM efforts should make consumers feel good, valued or proud about consuming a brand and think of the brand as part of their identity instead of a plain satisfaction of their needs. In his seminal work on RM, Grönroos (1994) identifies it as a means to establish, maintain, strengthen and even terminate relationships, while increasing the brand’s profitability through satisfying both parties of the exchange relationship. Morgan and Hunt (1994) identified the need for a distinction between the traditional marketing mix (a distinct beginning, a short duration and a sharp ending by performance) and a “relational exchange” which should be an ongoing process with the intention to last indefinitely. Gummesson (1994, p. 67) further posited that, “the marketing mix would always be needed but it has become peripheral in comparison to relationships” marking a total shift from one-off transactions and ‘spray and pray’¹ marketing strategies to a more personalised approach which aims to generate strong and lasting customer-brand relationships.

It is interesting to consider the different schools of thought concerning RM. Gummesson, (1996) recognises four of them (table 2).

¹ Spraying a marketing message indiscreetly in the hope that it will attract customers

Table 2: Relationship marketing schools of thought

School of thought	Basic assumptions
Nordic	Network approach and issues that are related to service relationships and relationship economics
IMP (industrial marketing and purchasing)	Relationships are being formed via a series of interactions. There is an association between adoption and evolution of relationships
North American	The focus is on the organizational environment
Anglo-Australian	Link between quality management and the use of a service marketing concept

Source: The author

The Nordic, which represents the largest school in RM, particularly stresses the importance of long-term relationships (Grönroos and Gummesson, 1985). Furthermore, it has introduced notions such as buyer-seller interactions, customer relationship lifecycle and interactive marketing, which remain prominent. The Nordic school uses a network approach to explore buyer-seller relationships, describing them as constantly interacting systems where firms and consumers become social entities (Parvatiyar and Sheth, 2000). The industrial marketing and purchasing group (IMP) was comprised of 300 European brands and its motivation was to examine RM in distribution channels (Håkansson and Snehota, 1995). Relationships were regarded as the consequence of interactions where buyers assumed a more active role. This is particularly applicable to the context of an OBC where consumers have a more dynamic role in expressing their opinions (Cova and Pace, 2006). The IMP group also concluded that adoption of new products or services from specific brands can be a result of developing customer-brand relationships. The North American school, although quite influential, has focused exclusively on improving buyer-seller relationships in B2B markets (Perrien, Filiatrault and Richard, 1993) hence its insights are not useful in this thesis. Christopher, Payen and Ballantyne (1991) were the most influential researchers representing the Anglo-Australian RM school and their six-market model (internal, referral, influence, supplier and alliance, recruitment and customer markets) has been used to measure the integration of quality management, the use of service management and customer relationship economics based on the above six marketing activities.

RM is significant in customer-brand relationships as it can deliver them mutual benefits simultaneously. Through RM activities, both customers and providers can come together and work towards a common target (Palmer, 1994). Especially in the case of OBCs, they provide a platform where both parties can collaborate, understand one another better and exchange ideas and

feedback. Through successful RM, brands are able to create competitive advantage over their rivals (Zineldin, 2006) or significantly increase their profits by retaining their customers (Reichheld and Sasser, 1990). Conversely, from the customers' point of view, RM reduces the risk involved in transactions, as well as the need to acquire new information about a brand, a service or a product before purchase (Bejou, 1997). Parasuraman et al. (1991) find that customers require more personalised transactions and strong relationships with their providers as this increases their influence over production, empowers them, gives them a sense of control of the whole retail process, as well as a feeling of trust, security and ultimately higher value for lower overall cost (Grönroos, 2004). This thesis examines this reciprocal beneficial relationship from the brand's point of view by examining and attempting to quantify the intentional benefits a brand acquires from its committed customers. Furthermore, it explores how OBCs can be utilized and used as a vehicle to attain this commitment which has the potential to later be translated into positive behaviours and profits operationalized as brand commitment, brand trust, oppositional brand loyalty, willingness to pay a price premium and WOM.

2.2.1 Online relationship marketing

During the past two decades and especially after the emergence of social media, interest in RM has been revitalized, something which is reflected in the creation of OBCs. The concepts of trust, commitment, value co-creation and loyalty have become topical again through this mode of easy, inexpensive and quick interaction between the brands and their customers or potential customers (Nambisan and Baron, 2007; Zwass, 2010). OBCs do not only help brands increase the lifetime value of their customers (Payne and Frow, 2005) but also give them the opportunity to identify their needs and expectations and hence the ability to better satisfy them (Yadav, de Valck, Hennig-Thurau, Hoffman and Spann (2013). OBCs have the ability to increase members' commitment towards their focal brand through repeated interactions with like-minded people and representatives of the brand. Although the Internet's impact on relationships between brands and their customers is significant at all stages (Kaplan and Haenlein, 2010), many brands are still hesitant in using it as a RM tool. This mainly happens because the Internet can have wildfire-like effects; when a rumour accidentally (or not) spreads, it is virtually impossible to stop it. Furthermore, it is often extremely hard for the marketer to convey the desired message which will induce customers to relate to the brand (Sheth, 2017). With technology however, the tendency towards creation of OBCs is so strong that all people are "fish in a digital aquarium" and RM forces are so influential that they blur the traditional roles of sellers and customers, as well as transform people into brand ambassadors or

vigilantes (Sheth, 2017). Therefore, carrying out research on RM in the context of OBCs is a matter of urgency.

2.3 The evolution of brand communities in relationship marketing

An offline brand community can be generally defined as a “geographically bound brand community” (Madupu and Cooley, 2010, p.144), while an online brand community as “a specialized, non-geographically bound community, based on a structured set of social relationships among admirers of a brand” (Muniz and O’Guinn, 2001, p. 412). This definition covers an extensive array of OBCs ranging from massive virtual communities comprising tens of thousands of members (Adjei, Noble and Noble, 2010) to small or temporary BCs on the Internet (McAlexander, Schouten and Koenig, 2007).

Marketplace communities are the ancestors of BCs and the term was first introduced by Boorstin (1974, p.211) to describe the evolving customer culture following the American industrial revolution. He described these consumption communities as “invisible new communities” that

[...] shift away from the tight interpersonal bonds of geographically bounded collectives and into the direction of common but tenuous bonds of brand use and affiliation [...]

Each brand community is concentrated around a specific brand which provides a “qualities-mediated ethos” (Anderson, 1983, p.829). These qualities are shared consciousness, rituals and traditions and a sense of moral responsibility. A look in the contemporary literature on these three qualities reveals that consciousness of kind, consistent with the social identification theory, describes that perceived BC membership makes members feel bonded with one another and separated from BC outsiders (Bagozzi and Dholakia, 2006). Algesheimer et al. (2005) further posit that it is usual for BC members to develop a sense of belonging to their community. This sense of belonging is closely related to the notion of emotional attachment and consequently to commitment (Brass, 1984; Ibarra, 1992; Podolny and Baron, 1997). Shared rituals and traditions are closely associated with the concept of community experience in the sense that members build their own interpretation of it, communicating these rituals and traditions throughout the BC (Casaló, Flavián and Guinalú, 2008). A very important aspect of this second quality is that it includes the exchange of brand-related stories between members (Muniz and O’Guinn, 2001), as well as the creation and sharing of a common set of values and behaviours (Zaglia, 2013; Casaló et al., 2008). Finally, moral responsibility is linked to a feeling of moral commitment towards other community members or the community as an entity (Casaló et al., 2008).

A brief chronological flashback in BC literature extends the traditional model of the dyadic relationship between customers and the brand to Muniz and O'Guinn's (2001) brand community triad; customer-customer-brand relationship and finally to McAlexander et al.'s (2002) customer-centric model of BCs. This later model highlights four interactions: customer-to-customer, brand-to-customer, customer-to-brand and customer-to-product. This widely-accepted model suggests that "the existence and meaningfulness of the community inhere in customer experience rather than in the brand around which that experience evolves" (McAlexander, 2002, p. 39). The same scholars further identify three additional context-dependent markers to better describe a BC. Namely, the geographic concentration context which refers to the distribution of the community's members in relation to their locations, the social context which is used as a BC classification measure according to its members' personal knowledge and ultimately the temporality context which is used as an indicator of the community's stability.

In their study, Schau et al. (2009) delivered a framework of four thematic groups in which BCs' activities are organised. The first one comprises the social networking practices. Although BCs cannot be considered as social networks, these two notions overlay to a large extent. Thus, this group refers to the formation and solidification of ties between community participants by practices such as welcoming new members, providing emotional support and help to them and disseminating the norms and the culture of the community. The second thematic group includes impression management practices and, as the term suggests, it consists of various actions that generate favourable impressions towards the community (and later to the brand itself) to those outside of it. Such practices may contain evangelizing and justifying (Schau et al., 2009) through sharing of favourable news, positive feedback about the brand or the community and encouraging outsiders to actually use the brand. Third, community engagement practices refer to staking, milestone, badging, and documenting in order to boost members' engagement and participation to the community. The fourth group includes brand use practices, promoting brand usage through customising and commoditising.

The BC field is relatively heavily-studied within the context of marketing management. This trend however is not surprising and is expected to intensify (Matzler, Pichler, Füller and Mooradian, 2011) mainly due to three reasons. First, as BC members can have extensive product knowledge, they are equipped to discuss product specifications and usefulness and share stories about the product or even recommend modifications for its improvement or for the development of a new one (Füller et al., 2008), a BC could be used as a rich source of inexpensive marketing information. Secondly, as Bagozzi and Dholakia (2002) suggest, a BC is increasingly considered as an individual market segment. Therefore, traditional marketing or targeting strategies might not be appropriate to target

this particular audience as BC members have developed their own distinct perception and understanding of the brand. Finally, as BCs usually comprise commitment to the brand which the community is dedicated to, brand-customer relationships can be fostered to even create brand followers and advocates (Algesheimer et al., 2005; Andersen, 2005; Bagozzi and Dholakia, 2006).

BCs can be means to influence individuals' perceptions (and actions) toward the brand (Muniz and Schau, 2005) and as basis for brand-related discussion between members (Brown, Kozinets and Sherry, 2003). The interactive exchange process within a community does not only influence this community's members (McAlexander et al., 2002) but consumers' relationships with the focal brand are also shaped and deepened through the social interactions which are taking place between community members (Algesheimer et al., 2005; Bagozzi and Dholakia, 2006). A further reason why BCs are an ever-topical issue in marketing and particularly relevant to this thesis is that they are increasingly linked to the 'holy grail' notions of brand loyalty/commitment and customer retention (Fournier and Lee, 2009; McAlexander et al., 2002, 2003). RM is the primary reason for the emergence of BCs and the explanation to why they are so popular among contemporary marketers and brands. The formation of long-term customer-brand relationships instead of focusing in one-off transactions is widely recognised as a means of obtaining sustainable competitive advantage (Webster, 1992). As BCs are based on a shared interest, admiration or love for a specific brand (Algesheimer et al., 2005), continuous discourses about that brand could lead to higher customer retention levels, positive WOM communications and even family or religious-like relationships between consumers and brands as documented in the works of Muñiz and Schau (2005) and Schau and Muñiz (2006) who investigated customer-brand relationships in the BCs of Apple Newton and Harley Davidson.

BCs are exceptionally important for both brands and customers. BCs are used by brands to receive useful information while the opposite (used by consumers) is often true as well (Laroche et al., 2012). This is to keep in touch with devoted customers (Andersen, 2005), enhance their loyalty or commitment, integrate them, attain proposals that can lead to innovation (Von Hippel, 2005) and ultimately co-create value with their customers (Schau et al., 2009). Conversely, Tajfel and Turner's social identification theory proposed in 1979 is frequently used to explain the rationales of people joining these communities. According to it, individuals establish a social identity by classifying themselves into BCs (regarded as social groups) and hence brands satisfy their need to identify with symbols and groups (Grayson and Martinec, 2004).

2.3.1 Online brand communities

It is evident that the first BCs were the result of high customer-brand engagement (Wirtz et al., 2013), mainly due to people's tendency to base their social identity on their consumptive role. Initially, even though they were still important for both the brand and the consumers, BCs faced a significant geographical constraint. Customers had to be physically present in order to interact and consequently this interaction was mainly done through brandfests or brand gatherings. The emergence of mass media and especially the Internet offered the chance for BCs to transcend geography (Muniz and O'Guinn, 2001), making the geographical constraint almost irrelevant. During the past fifteen years, the rapid expansion of the Internet and the ever-improving and increasing internet speeds, number of users (seventy-five percent of the western world households are connected to the Internet - Internet World Stats, 2012) and mobile technologies, have encouraged brands to divert, enhance, or even replace their conventional BCs with online ones. The fact that fifty percent of the top one hundred brands in the world have invested heavily in creating and developing their OBCs exemplifies their importance to businesses (Manchanda et al., 2012). This 'go-virtual' trend is not likely to halt any time soon. The social media boom and the narrowing of the technology gap (UNCTAD, 2012) between the Western and the developing world (especially the rapidly developing economies in Asia) ensure that OBCs will thrive as the basic customer-brand relationship building tool in the years to come.

Overlooking technological advances can prove disastrous for a brand not only because the emergence of OBCs is the latest stage of a long consumer-brand relationship evolution process but also because the virtual environment has the potential to empower consumers. Furthermore, the Internet and the Web 2.0 technologies offer a new, quick and interactive way of communication between individuals (consumers). OBCs have revolutionized RM by allowing multiple stakeholders such as the brands and the customers to come together to develop practices, products and ideas that traditionally would have emerged via a top-down procedure (Lafley, 2009). In other words, OBCs allow the involvement of customers into the value chain or the production itself (Brodie, Ilic, Juric and Hollebeek, 2013). Concisely, they can be used as foundations for the establishment of new relationships that will improve the experience of all stakeholders simultaneously by reconfiguring traditional roles and empowering the consumer. Current OBC literature identifies three major interaction characteristics of an OBC (Kuo and Feng, 2013). These characteristics are information sharing, community interactivity and community engagement. According to Jang et al. (2008), McAlexander et al. (2002) and Nambisan and Baron (2009), information sharing involves activities such as the dissemination of utilitarian information, sharing of experiences about the use of a product and product-usage solutions and recommendations. Furthermore, the same scholars

suggest that community interactivity refers to the degree of interactivity between the users of an OBC, based on the levels of sharing mechanisms and effective communication. This interactivity between participating members can be so strong that it even has the potential to enhance their risk-taking behaviours (in general and towards the brand) because they expect to receive help from other members in situations where difficulties will arise (Zhu et al., 2012). Community engagement refers to activities such as online voting and polling which are used to enhance members' feedback or positive attitude toward the OBC. For an offline BC, community engagement and particularly participation mainly comprise of gatherings (for instance brandfests) to produce similar outcomes.

As in the offline context, OBCs' existence is closely associated to acquisition of benefits by the consumer. Especially related to the principal concept of community participation, perceived consumer benefits play a crucial role (Nambisan and Baron, 2009). Balasubramanian and Mahajan (2001), Nambisan and Baron (2009) and Yen et al. (2011) postulate that individuals join OBCs in order to attain benefits from their interaction with other community members. These benefits usually include sharing of information about the product or the service that the community is concerned with and acquiring practical advice about the product or the service as well as problem solving. The above are also characteristics of an offline BC but since the availability of the Internet simplifies access to the community (due to the lack of geographical barriers), the speed of interaction because of the virtual context of the community and the potential number of connections (OBCs tend to be significantly larger than traditional brand communities (Zaglia, 2013)), researchers have the tendency to denote them as characteristics of an OBC (Kuo and Feng, 2013). Another novel characteristic of OBCs is that they have the ability to preserve the collective knowledge produced by their members. To give an example, discussion forums and bulletin links preserve all past conversations and therefore the user/member can navigate through previous discussions and find relevant information or solutions to his or her problem (Wasko and Faraj, 2000).

It is important to state that OBCs are almost never examined through the prism of solely exchanging information about a specific product or service. The benefits to the member are not just functional but they also include a psychological and social dimension, including the process of socialization, identification, superiority, expertise and enjoyment. Accordingly, with respect to individual benefits, OBCs are usually categorized according to the learning, social, self-esteem and hedonic benefits they offer to their members (Balasubramanian and Mahajan, 2001; Nambisan and Baron, 2009; Yen et al., 2011; Kuo and Feng, 2013). Learning benefits are quite straightforward to recognise since they refer directly to the information an individual can obtain about a specific product or service by engaging with other users of the same product in a virtual environment. Social benefits according to the social identification theory signify an enriched social identity and a sense of belonging (Dholakia et al.,

2004, Nambisan and Baron, 2009, Sicilia and Palazon, 2008; Wang and Fesenmaier, 2004). Self-esteem benefits comprise reputation and community status. They are closely related to the attainment of respect (Dholakia et al., 2004). Lastly, hedonic are the benefits that encourage the member to spend more time accessing the community (Sicilia and Palazon, 2008; Wang and Fesenmaier, 2004).

Such research attention on OBCs however would have not been drawn if these communities did not offer significant benefits to brands as well. As per the discussion in section 1.3, OBCs have been linked to higher levels of brand engagement, improved customer-brand relationships, brand equity and brand image (Cova et al., 2007; Dessart et al., 2015; Hur et a., 2011). It is then apparent that virtual brand communities do affect customers’ perceptions, attitudes and intentions towards brands in various forms, with brand commitment and brand loyalty being the most visible of them (Casaló et al., 2009). Only a small number of studies however have attempted to build on these intentions and attitudes and attest whether they further develop, or lead to customer behaviours that can provide financial benefits to the brand (Wirtz et al., 2013). Although research in OBCs is fairly extensive, it is the business discipline where the link between attitudes and behaviours is the weakest (Zheng, et al., 2015). This thesis therefore concentrates on this understudied link which will not only provide interesting theoretical outcomes but also managerial ones. As Sheth (2017) points out, the vast majority of major brands that do not own a brand-initiated OBC, do so because they are unaware of the financial benefits it can deliver. It is widely known that OBCs are related to higher levels of brand commitment or loyalty. Lots of brands however opt to not dive into these ‘unknown waters’ and develop alternative loyalty and commitment-building strategies. By shedding light on the association between OBC participation and positive brand-related behaviours conceptualised as oppositional brand loyalty, willingness to pay a price premium and WOM, this thesis will hopefully incentivise brand managers to look into OBCs with a renewed interest.

Table 3: Relationship marketing-related constructs derived from OBCs

Constructs	Most cited sources
OBC participation outcomes	
<i>OBC-related outcomes</i>	
OBC commitment	Jang et al. (2008); Casalo et al. (2007)
OBC identification	Marzocchi et al. (2013); Popp et al. (2016)
Participation intention	Woisetschlager et al. (2008)
OBC trust	Casaló et al. (2007)
OBC satisfaction	Schouten et al. (2007)
OBC commitment	Wellman and Gulia (1999)
<i>Brand-related outcomes</i>	
Brand identification	Stokburger-Sauer (2010); Zhou et al. (2012)
Brand engagement	Vivek et al. (2012); Kim, J.H. et al. (2008)

Brand trust	Delgado-Ballester and Munuera-Aleman (2001); Matzler et al. (2011)
Brand commitment	Algesheimer et al. (2005); Kim et al. (2008); Bagozzi and Dholakia (2002)
Brand attachment	Park et al. (2007); Bergami and bagozzi (2000)
Brand loyalty	Brodie et al. (2011); McAlexander et al. (2002)
Brand image	Laroche et al. (2012)
Higher sales	Blazevic et al. (2013)
Brand satisfaction	Brodie et al. (2011)
Innovation	Kim et al. (2008); Kozinets (2002)

Source: The author

2.3.2 Differences between online and offline brand communities

Online and offline BCs are very similar but yet so different. BCs are strategic resources and can provide competitive advantages to brands. They are a creation of RM which has developed over the past five decades (Laroche et al., 2012; Webster, 1992). Early, traditional one-to-one relationships between brands and customers were not always achievable or effective. The idea of a BC was conceived in order to better manage these relationships and with many customers simultaneously. BCs, both in the offline and online context, perform critical tasks for a brand's RM strategy by supporting and encouraging information sharing, providing assistance to customers and especially to the newcomers and perpetuating the culture and the history of the brand (McAlexander et al., 2001). In this sense, the logic behind every BC irrespectively of its context (online or offline), is the formation and conservation of strong relationships between the customer and the brand. Their differences lie in the characteristics of each BC and its so-called dimensions (Wirtz et al., 2013). These dimensions generally include the community's main mode of interaction, the dimension of geography and time, the costs to the community members and the members' involvement with the brand, the firm and the community itself. A brief description of these dimensions is given below:

Mode of Interaction: While in offline BCs interaction is real-time and takes place face-to-face, members use their real identity and the hierarchy is rather clear, OBCs are associated with a virtual interaction where individuals do not necessarily have to use their real identity and the hierarchical structures are very informal in most cases (Gruner, Homburg and Lukas, 2014).

Geography and time: Although truly global offline BCs are rare but do exist, members have to be physically present at a specific location and time in order to communicate or interact. Consequently, offline they are associated with the heavy restriction of place and time. The most common interactive events for offline BCs are the brandfests, mainly in the form of events that bring consumers together in geo-temporally concentrated events and entail coordinated activities and brand happenings (Mittal, 2008). On the other hand, interaction between members in an OBCs occurs irrespectively of time and location (Muñiz and Schau, 2005).

Costs to community members: In accordance with the above dimensions, since a member's physical presence is required for interaction in an offline BC's gathering, this implies transportation, accommodation and daily costs for the individual. Time, effort and opportunity costs arise as well. In the online context, these costs are effectively non-existent.

Involvement with brand, firm and community: Offline BCs are usually comprised of members with high involvement (Lin, 2007). As interaction between members demands economic and social sacrifices, people will tend to commit more to their relationship with the brand and other members. Access in a virtual community is relatively inexpensive, making OBCs significantly larger than the offline ones. This implies that some OBC members may just require practical help with product-related issues or they are just passive observers of the community with low, or no participation (Bartikowski and Walsh, 2014).

Size: As discussed, offline BCs involve high costs, time-specific and geographical requirements and restrictions for members' interactions. This is associated with fewer membership numbers. On the contrary, as practically everyone who is connected to the Internet can freely become a member of an OBC, virtual communities tend to be a lot larger (Laroche et al., 2012)

An interesting observation related to BCs comes from Hatch and Schultz's (2010) remark that most of those BCs that arose before the Internet era have now emerged online as well. Contrariwise, several OBCs have added offline meetings and gatherings between their members in their functions to satisfy their need of face-to-face intimate interaction. From the above discussion, it is evident that interaction and participation of members of an offline BC is tougher, more inefficient and costly but nevertheless associated with higher levels of intimacy and affection, bringing the community closer to the notion of a social network (Lee, Lee, Lee and Taylor, 2011; Wellman and Frank, 2001; Lee and Kim, 2010). In contrast, the easiness of entry, the passiveness and the size of OBCs make them less dense as networks, allowing looser bonds between members with one another and between members and the brand to be created. They constitute however a very powerful channel of information diffusion and a perfect means of interaction for less committed members (even for lurkers) that would not have the opportunity to interact with like-minded people otherwise (Preece et al., 2004).

It is important to note that further categorisations of OBCs do exist but since this study is not concerned with whether different types of OBCs would produce different research outcomes, they are only briefly presented here in table 4. These categories usually include the growing body of research in social media-based OBCs, mode of governance (brand-initiated and customer-initiated),

accessibility, type of host and the market in which the brand that owns the OBC competes in. This thesis focuses exclusively on consumer markets.

Table 4: Basic classification of OBCs

	Advantages (for the brand)	Disadvantages (for the brand)	Advantages (for the consumer)	Disadvantages (for the consumer)
Mode of governance				
Brand-initiated	Control, upkeep, interaction with customers, innovation.	Maintenance costs, inactivity due to large numbers of lurkers, spamming	Complaint-handling, monetary incentives, smooth governance	Strict rules, delays in official responses, censorship
Customer-initiated	No monetary involvement, flow of information about the brand	No possibility to intervene or handle complaints, lack of an adequate way to regulate the number or content of these communities	Free dissemination of information, no strict moderation, more freedom of speech	Lack of clear governance, opportunistic behaviour from other members, bullying, no official responses to queries
Advantages			Disadvantages	
Host				
Bulletin boards	Interactivity, personalization		Basic interface, lack of simultaneous interactions	
Discussion forums	Simultaneous interactions, more freedom to members, creativity, great dissemination of information		Difficult to moderate, some members might monopolize discussions, spamming	
Email listings	Passing a message to multiple members		Lower interactivity, top-down approach to relationship marketing	
Social media	A very large pool of members, easiness of access, very inexpensive		Very hard to moderate, spamming	
Accessibility				
Free	Many members, greater socialization and familiarization with the brand even for non-users of the product or the service		Expensive and difficult to moderate	
Medium	Retention of control, very product or service-specific		Non-members might feel excluded and oppose the brand	
Closed	Very high involvement, participation and engagement		Sense of exclusion for non-members, online segregation	
Consumer markets			Business markets	
Purpose and attributes	Their purpose is focused on providing a platform for customers to interact amongst themselves, whether to achieve a goal, improve a skill or facilitate better use of the brand's products. They also aim at building strong customer-brand relationships and they are usually very large comprising a lot of members.		The purpose of a B2B community is driven by a topic focus or strong connections between members and the community's sponsor. Companies often build online communities to bring clients and prospects together in a private space where they can discuss the business at hand. They tend to be much smaller in size than the B2C OBCs and members often develop long-term working relationships and ongoing collaboration activities	

Source: The author

2.4 Linking the research objectives with the conception of the structural model

This section provides a basic explanation of the marketing constructs which have been used in the formation of the conceptual model (Chapter Three) as well as a rationalisation of their selection. Table 3 presents a list of the RM constructs which have been recently used to describe OBC-related and brand-related outcomes of OBC participation. Based on the aim of this thesis, the conceptual model centres around confirming that participation in OBCs does not only provide positive attitudinal outcomes for a brand but also behavioural ones. As discussed in Chapter One, the OBC

literature has identified three behavioural outcomes of virtual brand community participation that require quantitative exploration, namely oppositional brand loyalty, WOM and willingness to pay a price premium. It has also been deliberated as to whether the commitment-trust theory of RM was considered suitable to use in this study because of its ability to mediate relational forerunners and behavioural outcomes of attitudes and intentions. Hence, the constructs of brand trust and brand commitment were included. Conceptualizing OBC participation and linking it to members' attitudes and behaviours would be deficient, however without a theoretically sound foundation of this relationship. Since OBCs are online human groups and necessarily customer-brand relationship-building spaces, a prominent social group theory, the social identification theory (Tajfel and Turner, 1979) was chosen to explain the paths of the structural model. According to this theory, people can identify and commit to multiple targets apart from the core social group. In the case of OBCs, participating members develop a sense of identification and commitment not only to the OBC but also to the brand which is supported by the social group. Therefore, the constructs of OBC identification, OBC commitment, brand identification and brand commitment were utilized. The role of emotions, theorised as brand attachment as per the recommendations of Zhou et al. (2012) and Park et al. (2007) in this relationship-building process, was also considered.

2.4.1 Brand awareness

Brand awareness is so crucial in business that is often thought as a significant first step towards building a brand (Wang et al., 2016). It is logically derived that known brands are much more likely to be selected and purchased by customers than unknown ones and this is a major driver for competitive advantage. Brand awareness makes the brand available in the minds of consumers (Langaro, Rita and Salgueiro, 2015) and puts it in the range of existing choices, making it central in brand knowledge (Keller, 1993). Awareness, especially in branding is slowly formed via exposure to the brand which is memorable and repetitive (Keller, 2003). Aaker (1991) also posits that this brand exposure gradually enhances consumers' perception that a specific brand is a viable choice and makes them much more likely to purchase among a variety of others. Brand awareness, habitually referred to as brand familiarity, comprises two mutually reinforcing dimensions: brand recognition and brand recall (Langaro et al., 2015). The former implies a general knowledge of the brand and its products or services (Keller, 2003). The latter refers to the ability of the consumer to recall the brand in situations where relevant products or services are to be purchased. Brand awareness strategies usually focus on building the capability of the consumer to recognise and recall the brand and increasing the proportion of the market that is aware of a brand name (Subhani and Osman, 2011).

Brand awareness has lately been extensively used in the research on OBCs, especially because of its close connection to OBC identification which will be discussed in the following chapter. It has been found that, like with actual products or services, joining an OBC is usually a result of brand awareness (Ku, 2011). People spend a large fraction of their day online hence it is much more possible to join OBCs of known (to them) brands than of unknown (Madhavaram, Badrinarayanan, and McDonald, 2005). OBCs are generally recognised as platforms that enhance a brand's profitability so those with more members are likely to produce more favourable outcomes for the brand. There is some evidence that OBCs trigger brand awareness (i.e. Füller, Schroll and von Hippel, 2013; Kleinrichert, Ergul, Johnson and Uydaci, 2012) which is rationally reasonable since intra-community communications and interactions enormously enhance brand recognition. The dominant research in the area however suggests that the majority of OBC membership is a result of individual will and research instead of recommendations. This suggests that awareness of a brand's existence plays a central role in joining and participating in an OBC (Jakeli and Tchumburidze, 2012; Lin, 2013; Sam, 2012; Wu and Lo, 2009).

2.4.2 Online brand community identification

Community identification entails a sense of belonging to the community (Algesheimer et al., 2005), a sense of loyalty (Scarpi, 2010) and greater trust in it (Yeh and Choi, 2011). Furthermore, individuals who identify with a community are much more likely to engage (Zhou et al., 2012) and more actively participate (Shen and Chiou, 2009) in it. Community identification is therefore a broad concept that involves a range of emotional states and tendencies which are favourable to the individual and the group (community) and was therefore selected for this study.

The social identification theory (Tajfel and Turner, 1979) highlights the degree of identification between members of a social group (such as an OBC) and elaborates these members' motivation to participate in virtual communities, as well as this participation's outcomes (Bagozzi and Dholakia, 2002). As individuals identify with other members and develop a sense of belonging to the OBC, they consider themselves as an organic part of the community (Hogg and Abrams, 1988) and actively participate in its activities (Dholakia et al., 2004). The social identification theory emphasises two facets of self-concept; a) a personal identity which involves a person's idiosyncratic characteristics such as interests and abilities and b) a social identity involving a group classification based on membership in organisations such as an OBC (Tajfel and Turner, 1985). According to Brewer (1991) and the social identification theory, when participating in groups, people transcend the notion of personal identity and categorise themselves into distinctive groups, leading to locating themselves

into such a social environment (Turner, 1985). Social identification theory suggests that people become psychologically attached to the group. Based on the earlier works of Foote (1951) and Tolman (1943), it theorises that they become a stakeholder of its success or failure after comparing their self-determining characteristics with those that define the group (Ashforth and Mael, 1989; Dutton et al., 1994). Individuals who have identified themselves with a specific group do not only feel emotionally attached to its success (or failure) but also actively support it (Stryker and Serpe, 1982), even taking pride in its operations, successes and features (Turner, 1982).

Research has shown that group identification is a basic characteristic of BCs (Loewenfeld, 2006). It is also widely recognised (Matzler et al., 2011) that OBC identification is a major determinant of OBC behavior and is comprised of two components²; the cognitive and the affective. The former refers to the individuals' (consumers') similarities with other community members as well as their community membership self-awareness, while the latter describes the emotional bond with the community and can be translated into commitment or loyalty. It is noteworthy to mention that research has not adequately considered community identification in OBCs, particularly where there are no offline interactions between members (Luo, Zhang and Wang, 2016). More specifically, Yoshida et al. (2018) suggest that community identification's prominence in traditional offline BC studies did not follow an expected path, it is therefore transcended in the online context, paving the way for further quantitative research on the construct and its outcomes in OBCs.

2.4.3 Online brand community commitment

Commitment plays a very significant role in this thesis. It is generally defined as an "enduring desire" by parties to maintain a valued relationship (Moorman et al., 1992, p. 316). It is enduring since people perceive the benefits of sustaining it to weigh more than those of ending it (Geyskens et al., 1996). Commitment also has a central role in RM (Garbarino and Johnson, 1999) since people find value in building relationships with organisations (Meyer and Allen, 1991) such as brands. In addition, commitment, regarded as loyalty to an organisation (Mowday et al., 1979), results in positive behavioural outcomes (Gruen et al., 2000) which have monetary value to it.

The concept of OBC commitment is a relatively new one that came to researchers' attention with the evolution of the Internet and Web 2.0. Hur et al. (2011) and Moqbel et al. (2013) describe OBC commitment simply as an attitudinal factor which reflects OBC members' attitude towards the OBC

²Earlier research (Ellemers et al., 1999) has identified three components (cognitive, evaluative and emotional). This description of identification is not adopted in the present study as it refers to social identification in brand communities and not to brand community identification, making it less relevant.

they belong to. Members who are committed to their relationship with the OBC exhibit a stronger attachment to the relationship quality with the brand (Algesheimer et al., 2005) and a psychological bond with the community (Bettencourt, 1997).

Zhang et al. (2013) categorize OBC commitment into three broad and non-exclusive types; continuance, affective and normative. Continuance OBC commitment refers to the connection between the members and the OBC that is based on the members' belief that the net benefits they can acquire from a specific OBC cannot be found anywhere else (Bateman, Gray and Butler, 2011). This 'economics-based' reliance represents the weakest kind of OBC commitment (Anderson and Weitz, 1992). Affective OBC commitment, which is the strongest type of OBC commitment, describes the extent to which an OBC member is personally involved in the OBC and the degree of trust and commitment he or she feels in it (Johnson, Herrmann and Huber, 2006). Finally, normative OBC commitment is based on the sense of indebtedness or obligation (Ashforth, Saks and Lee, 1998) the member has towards the group (Bateman et al., 2011). Affective commitment is mostly relevant to this thesis.

2.4.4 Brand Attachment

Consistent with the RM literature given in section 2.2, this thesis adopts the definition given by Park et al. (2010), according to whom brand attachment is "the strength of the bond connecting the brand and the self" (p. 2). The main evidence of the existence of a sense of attachment between individuals and brands (or marketplace entities in general) comes from the work of Fournier (1998), Keller (2003) and Schouten and McAlexander (1995). One of the first to propose that people can develop emotional relationships with brands was Belk (1988), extending Bowlby's (1979) suggestion that attachment can refer to an emotional bond between a self and an object.

In general, individuals can psychologically attach to tangible and intangible entities such as brands (Ball and Tasaki, 1992; Lastovicka and Gardner, 1979). Self-brand attachment motivators include affection and experiences (Orth et al., 2010), personal attachment (Swaminathan et al., 2009) and brand characteristics (Robins et al., 2010).

Central to this thesis is the notion that consumers' consuming patterns are defining them compared to others and they select brands that better relate to themselves (Aaker, 1999). Furthermore, it is also theorising that all individual-brand relationships are based on the notion that people categorise brands as parts of themselves and create a feeling of oneness with them. Indeed, Park et al. (2010) separate brand attachment into two broad categories; brand-self connection and brand prominence.

Brand-self connection includes an emotional and cognitive link between the brand and the self (Chaplin and John, 2005) which is intrinsically emotional and is consisted of various and complex feelings about the brand (Mikulincer and Shaver, 2007; Thomson et al., 2005). Brand prominence refers to the importance that a brand has to the individual based on the positive memories and feelings of attachment to a specific brand. As relationships between people and brands take time to develop, these ties and feelings towards a brand become a part of consumers' memories and these brand memories are more significant for people who show a higher level of attachment with a brand (Mikulincer, 1988; Collins, 1996). Like identification, attachment then also becomes stronger as the frequency of memories about the brand increases.

This is particularly significant since true brand attachment is linked to higher profitability and value as it has the ability to shape behaviours or attitudes (Belaid and Behi, 2011). Furthermore, in marketing, attachment is a predictor of sustaining a relationship (Garbarino and Johnson, 1999) because it is related to a much higher propensity to invest in the relationship and thus forgo opportunistic behaviours or immediate self-interest for the sake of nurturing it (van Lange et al., 1997). Brand attachment has further been linked to higher brand commitment, recommendation intentions and propensity to spend more time and money on the relationship (Park et al., 2010). This is discussed in more detail in section 3.3.2.

2.4.5 Brand identification

Much like OBC identification discussed in section 2.4.2, the social identification theory has been used fairly extensively to describe brand identification. Unlike identification to an OBC however, consumer-brand identification lacks the element of evaluating personal traits against those of the brand but focuses exclusively on the overlap between them. Many researchers have used the self-brand connections literature to elucidate this complex marketing construct (Escalas and Bettman, 2003, 2009), defining it as the degree to which consumers have incorporated a brand to their concept of self or personality. While this definition is broad and thus convenient for a RM study like the present, it implies that it also includes the motivators behind these consumer-brand relationships. Nevertheless, communicating one's identity to other people and realising desired self and goals is far wider than brand-self connection (Park et al., 2010) and brand relationship quality (Fournier, 2009) that are conjunct with brand identification (Stockburger-Sauer et al., 2012).

Ashforth and Mael (1989) suggest that consumer-brand identification plays an important role in shaping the self, in the sense that individual identities of identified customers are perceived to be enhanced by a brand and their personalities expressed through it. Moreover, customers who

identify with a brand can even define themselves in relation to that brand and perceive themselves as stakeholders in its successes or failures. Besides, customers identify with a brand based on their own experiences and the brand's unique features help them define themselves or shape (and develop) their identity (Cameron, 1999). As mentioned above, brand identification involves a strong link between the individual and brand identities, leading to self-definition. In fact, individuals identify more with brands that they believe are associated with more appealing identities and with those sharing similar goals and values to themselves (Balaji et al., 2016). The above fits perfectly to Levy's (1959) observation that brands have symbolic value and meaning and that they assist individuals and customers in realising their identity goals (Belk, 1988; Escalas and Bettman, 2009; Fournier, 2009; Holt, 2005; Huffman et al., 2000). It is then assumed that brand identification can determine individual behaviours and predict attitudes (Park, 2000). This is of particular importance to RM since consumer-brand identification produces favourable intentions towards the brand. Indeed, Park (2000) and Porter et al. (2011) posit that individuals who are identified with a brand are more likely to make purchases from that brand compared to individuals who are not identified.

2.4.6 Brand trust

Trust is regarded as an inherent characteristic of any valuable social interaction. The concept has long become a topical issue in marketing literature due to the shift from the original 'spray and pray' marketing, to marketing strategies that are based on building strong relationships between suppliers and customers (Dywer et al., 1987; Ganesan, 1994; Geyskens et al., 1996; Morgan and Hunt, 1994). RM is derived directly through social and anthropological sciences and as such it embraces qualities like altruism, benevolence and honesty (Larzelere and Huston, 1980), dependability and responsibility (Rempel et al., 1985). All of these however refer to one basic concept; the fact that there is a minimum doubt about the other party's intentions and purposes, as well as a minimum risk to upholding a relationship. Since in a business setting there is a monetary exchange however, relational notions like consistency, responsibility and fairness and competence are not alone sufficient to create and maintain trust. The consumer expects the brand to fulfil its obligations and promises. This requires the formation of virtues such as ability (Andaleeb, 1992; Mayer et al., 1995) and credibility (Ganesan, 1994).

A significant body of literature defines, conceptualises and links brand trust to other vital marketing constructs such as brand satisfaction, brand affect, brand love and brand commitment, all relevant to this thesis. The early theorizations of trust which were limiting it to the customer's perception that their preferred brand will continue to offer the same product at the same price (Sung and Kim,

2010) have gradually been replaced by conceptualizing trust as a key RM outcome (Morgan and Hunt, 1994) which can be understood as a substitute for human contact in relationships between the brand and its customers (Sheth and Parvatiyar, 1995). Early portrayals of brand trust in the RM context included viewing it as an imperative and contributing factor for the service quality perceptions (Parasuraman et al., 1985), describing it as a relationship quality feature (Dwyer, Schurr and Oh, 1987) influencing brand loyalty (Berry, 1983), the level of cooperation between the brand and the consumer (Anderson and Narus, 1990) and the efficiency of communication between different stakeholders (Mohr and Nevin, 1990). Furthermore, a brand is being trusted by the consumer when it performs in the best interests of him or her, keeping its promises based on a set of shared interests, goals and values (Doney and Cannon, 1997). Any action that violates this leads to lower levels of customer trust toward the brand (Aggarwal, 2004). Casalo et al. (2007) identify it as a relational component which, building on Chaudhuri and Holbrook's (2001) and Morgan and Hunt's (1994) view, describe the average customer's willingness to rely on the ability of the brand to perform its stated function. This is also the definition of trust that this thesis adopts.

Derived from the above, the formation of trust is often associated with overcoming risky environments characterised by information asymmetry and fear of opportunism. To cope with uncertainty and complexity (Luhmann, 1989), consumers usually aim to choose trustworthy brands (Delgado-Ballester and Munuera-Alemán, 1999; Erdem et al., 2006) and thus risk reduction can be viewed as a "basic function of a brand in the buying decision process and brand trust as one of its most important sub-functions" (Fischer et al., 2004, p. 331). Decreasing uncertainty and information asymmetry is a basic tool in making customers feel comfortable with their brand (Chiu et al., 2010; Doney and Cannon, 1997; Gefen et al., 2003; Moorman et al., 1992; Pavlou, Liang and Xue, 2007). Brand trust is very important in OBCs as the online context allows for fast, inexpensive and easy dissemination of information. Practices like evangelizing, customising, welcoming, justifying and documenting (Schau et al., 2009) permit information to freely flow among participants of an OBC and generate higher levels of trust. This information can vary from practical recommendations on how to use a product to story-telling and experience-sharing. The virtual environment therefore expedites information diffusion, reducing customer uncertainty and enhancing brand predictability (Ba, 2001; Lewicki and Bunker, 1995) and trust.

2.4.7 Brand Commitment

The term commitment was originally used in psychology to describe people's intentional aspects (Kiesler, 1971) and more specifically the voluntary binding of a person to behavioural actions.

Bowlby (1973) suggests that people have a fundamental tendency to becoming attached to entities. Brands, regarded as entities, can attain this commitment, through successful RM strategies (Park et al., 2009). In both social psychology and RM literatures, commitment is broadly considered as an absolutely necessary precondition for lasting and loyal relationships. Focusing on the latter, early (Cunningham, 1967), as well as more contemporary (Bloemer and Kasper, 1995; Knox and Walker, 2001; Verhoef, 2003; Kim et al., 2008) scholars, view commitment as a significant relationship constituent that has the potential to lead to lasting and loyal relationships of value between a brand and its customers.

Commitment can be regarded as loyalty (economic, emotional and psychological) towards a brand (Evanschitzky et al., 2006), while committed customers are not only willing to sustain the relationship they have with a certain brand but they are also prepared to put forth effort in order to do so. As a consequence, commitment is perhaps the most vital predictor of true loyalty (Beatty and Kahle 1988). Building brand commitment is a slow and complex process where commitment evolves over time (Keller, 2005) and, like in personal affiliations, committed customers create solid ties with their favourite brand (Escalas and Bettman, 2003) and view the brand as a central part of their personality and life (Fournier, 1998). Shankar et al. (2003) agree that commitment is essential to keep a worthwhile relationship between brands and consumers. Substantiating this, Moorman et al. (1992) characterize brand commitment as an ongoing intention to sustain a useful relationship. This useful relationship also tends to be stable (Prichard et al., 1999), indicating its participants' negative propensity to forgo or change.

Brand commitment is usually studied using two broad categorisations; affective and continuance. This thesis, although its questionnaire also attempts to capture aspects of continuance commitment in general, is primarily concerned with the former. In this study, affective commitment is simply referred to as brand commitment.

Table 5: Most recent studies linking OBCs to brand equity aspects other than brand loyalty or commitment (2011 onwards)

Authors	Context	Measure(s) of brand equity	Mode of study	Gap that the present study is filling
Royo-Vela and Casamassima (2011)	Zara OBC	WOM, brand satisfaction	Netnography	Empirical verification of WOM as an outcome of OBC participation
Broggi et al. (2013)	Luxury fashion	Perceived brand quality, brand awareness, brand associations	Empirical (quantitative)	Greater generalisation of the outcomes outside the fashion industry
Kuo and Feng (2013)	Automobile OBCs in Taiwan	Oppositional brand loyalty	Empirical (quantitative)	Greater generalisation of results and confirmation of oppositional brand

				loyalty as an important aspect of brand equity
Wirtz et al. (2013)	Proposed theoretical model	Sales, brand engagement, brand satisfaction, brand image	Theoretical	Empirical confirmation of OBC-generated brand equity
Brodie et al. (2013)	Health and fitness OBC	Brand satisfaction	Netnography	Empirical confirmation of OBC-generated brand equity, confirmation outside social media
Vernuccio et al. (2015)	Various OBCs on Facebook	Brand love	Empirical (quantitative)	Brand love has not been confirmed to be an aspect of brand equity
Kim (2015)	Various OBCs on Facebook	Purchase intention	Empirical (qualitative)	Enhancement of equity-related constructs providing further validation for the monetary potential of brand equity
Zhang et al. (2015)	Proposed theoretical model	Brand perception, brand relationship, brand satisfaction	Theoretical	Brand relationship and satisfaction have been long seen as aspects of relationship quality
Wang et al. (2016)	SaaS OBCs on LinkedIn	Brand awareness	Empirical (quantitative)	OBCs in LinkedIn are very highly moderated and restricted hence generalisability of the findings might be problematic
Marticotte et al. (2016)	Gaming OBCs	Negative oppositional referrals, brand evangelism	Empirical (qualitative)	Heavy limitation of using gaming communities only.
Ranfagni et al. (2016)	Luxury brands	Consumer-brand alignment	Theoretical	Consumer-brand alignment is not a very well-defined marketing construct
Hassan, Casalo and Ariño (2016)	Automotive industry	Brand defence	Netnography	Brand defence is operationalised as oppositional brand loyalty

Source: the author

2.4.8 Brand commitment and brand loyalty in this thesis

The theoretical framework of the present research treats brand commitment and brand loyalty as very similar and does not therefore recognise the necessity to study them distinctly. In line with the findings of Li and Petrick (2010) who posit that they are very similar, and as it is explained commitment has both an attitudinal and a behavioural component (section 2.4.7), it was decided that positive psychological commitments and repurchase intentions towards a brand would simply be referred as brand commitment.

Although brand loyalty is a popular marketing term (Shugan, 2005; Oliver, 1999), it is a very complex construct which creates “too much confusion because we do not have any consistent way of referring to all the different types of customers” (Hofmeyr and Rice, 2000). Other scholars identify further problems associated with the use of loyalty in the brand context. For example, Knox and Walker (2001) suggest that it suffers from “definitional inconsistencies and inadequate operationalization”, while Jones and Taylor (2007) identify major difficulties in its conceptualization. It is not unusual in marketing studies to regard brand commitment and loyalty as synonymous (Lee, 2003) since attempting to make a distinction between them has proven to be very problematic

(Chen, 2001; Pritchard et al., 1999; Pournaris and Lee, 2016). Besides, empirical studies have also confirmed this overlap. Heere and Dickson (2008) found that there cannot be a clear distinction between loyalty and commitment since the former is largely a component of the latter, while Li and Petrick (2010) concluded that the two are essentially the same constructs and commitment “is at a minimum highly correlated with the attitudinal dimension of loyalty and could very well be the same construct”. Evidence from the literature therefore suggests that there is no need to conceptually separate the notions of brand commitment and brand loyalty in customer-brand relationships research.

2.4.9 Word-Of-Mouth (WOM)

WOM, also known as viral or buzz marketing, is a marketing term that has many interpretations and has been treated diversely in the literature. WOM literature dates back to the 1950's and 1960's (Brooks, 1957; Arndt, 1967; Dichter, 1966; Engel et al., 1969) and since then the term's conceptualisations are constantly evolving (Carl, 2006). A common theorization describes WOM as a necessarily informal means of communication between customers concerning the evaluation of goods and services (Anderson, 1998; Arndt, 1967; Dichter, 1966; Wee et al., 1995). What is interesting with WOM is that marketers do not have direct influence over it but they can actually indirectly affect it (Lim and Chung, 2014). Some researchers (Arndt, 1967; Cova, 1997; Mazzarol et al., 2007) regard WOM as an alternative mode of marketing communications, one that focuses outside the producer-to-consumer social relations and on consumer-to-consumer interactions that affect purchasing behaviour.

WOM is an indispensable feature of the marketplace in general. Berger (1988) and Jolson and Bushman (1978) posit that consumers generally seek advice and information concerning products or services from other consumers in order to make more informed purchasing decisions. People who are already aware of certain products' or services' features (Deutsch and Gerard, 1955; Lim and Chung, 2011) have the ability to actively shape others' choices (Brown and Reingen, 1987). Of course, the extent to which people rely on the source of WOM depends profoundly on the latter's perceived expertise (Bansal and Voyer, 2000; Smith et al., 2005). Sometimes, even if the source of WOM is credible and trustworthy such as a friend or a relative (Burnkrant and Cousineau, 1975; Yoon et al., 1998), perceived expertise might be low, hence purchasing behaviour will also depend on the consumer's familiarity with the brand. This is particularly pertinent in this study as participation in OBCs is considered to be enhancing the WOM sources' perceived expertise (Lim and Chung, 2014).

The recognition of how critical WOM is to a brand's profitability and reputation is not new. For over half a century, researchers have concluded that the vast majority of purchasing decisions are influenced by WOM (Brooks, 1957; Dichter, 1966). Hawkins et al. (2004) emphasise the importance of WOM by stating that buying behaviour is an "imitation process". In other words, consumers tend to replicate the actions of others following a natural-occurring educational social paradigm. Remarkably, a substantial number of researchers (Bourdieu, 1984; Sacks, 1995; Clark et al., 2003; Heath and Luff, 2007) propose that economic activity, as well as consumer products, cannot be separated from social interactions. Therefore, buying decisions are, more often than not, outcomes of interactivity with other people since the marketplace and the products and services have the ability to initiate discussions or are frequently brought into them.

2.4.9.1 eWOM (electronic Word-Of-Mouth)

Advancements in information technology are shaping the way people live their lives and make decisions (Chen and Law, 2016). People's lifestyles and communication methods are changing in par with changes in the available technology. It is estimated that 4.2 billion people worldwide use the internet and social media platforms and around sixty percent (60%) of them are willing to share their consumption experiences with others (Digital Insights, 2013).

While online and offline WOM share a few key characteristics such as the "source, message and receiver" (Al-Fedaghi et al., 2009), they also differ in several ways. One basic difference between conventional WOM and eWOM is the timing of communications. In WOM, the vast majority of them are synchronous since the communications take place directly between consumers, primarily in the form of personal conversations (Zeithaml et al., 2006). While this can be also true online in chat rooms and instant conversations, the virtual environment also allows for asynchronous WOM in the form of online reviews, forum or social media posts, blogs and emails (Hoffman and Novak, 1996). This is particularly important to marketers since this influential information about products or services is easily accessible to a vast number of consumers at any time (Litvin et al., 2008). Another significant difference is the cost of WOM. The online space gives marketers an exceptional opportunity to utilize Web 2.0 inexpensively, enhancing their targeting while simultaneously reducing costs. Dellarocas (2003) also suggests that the online setting permits greater control over the forms of communication. In company-initiated OBCs, the brand is able to decide which form of communications (comments, reviews or chat rooms) better apply to their goal. Importantly, eWOM presents a powerful marketing tool that has the potential to shape the market dynamics because it can essentially be searched, accessed or linked (Litvin et al., 2008).

2.4.10 Willingness to pay a price premium

Willingness to pay a price premium is a significant indicator of value creation and brand equity (Doyle, 2001) and while it usually remains stable over time, variations to it typically indicate alterations in the brand's strength, health and market share (Agarwal and Rao, 1996; Ailawadi et al., 2003). The concept of willingness to pay a price premium in the RM context refers not to the actual price of the tangible and intangible products or services that the brand offers but to the added pricing that is attributed to consumer experiences with the brand (Adhikari, 2015). RM literature treats willingness to pay more as an outcome of a strong association between the brand and the customer (Nyffenegger et al., 2015) rather than an ephemeral, or even fleeting phenomenon like in the traditional willingness-to-pay (WTP) theory which is based on the individual perception that there is a quality gap between the preferred brand and the competition (Steekamp et al., 2010).

Several researchers (Sethuraman and Cole, 1999; Sethuraman, 2003; Hustvedt and Bernard, 2010) have identified willingness to pay a price premium as a major determinant of brand equity. For example, they point out that consumers are more prepared to pay more for national rather than local brands as they have more information about them. Although this insight is interesting, it is associated with a major drawback; it arbitrarily assumes that the bigger the brand is, the more consumers will be prepared to pay for its products or services. While this is apparently true for some brands, especially the luxury ones (Coyler, 2005), many large national firms' success is based on the fact that they charge less than local enterprises. Furthermore, people often pay more for smaller local brands because they either perceive them less commercialized or have built relationships with them (Yoo et al., 2000). Additionally, other researchers have identified that brands are able to stimulate their customers to pay more for their goods or services regardless of their size or status (Netemeyer et al., 2004). Particularly relevant to this study, Fueller and Hippel (2008) suggest that brands that own communities (such as OBCs) have customers whose willingness to pay more is higher than brands that do not.

Willingness to pay a price premium is usually treated in a relative way, meaning that it concerns all brands, even the low-cost ones. For example, in the UK supermarket industry, shoppers might be willing to pay more to purchase from a specific low-cost supermarket instead of others. While it is a key characteristic of successful brands, there is little empirical evidence however proving that it is related to specific brand characteristics (Anselmsson et al., 2014). This thesis attempts to investigate whether, and to which extent, it is an outcome of OBC-generated brand commitment.

2.4.11 Oppositional brand loyalty

The term 'oppositional brand loyalty' was first introduced by Muniz and O'Guinn in 2001. Oppositional brand loyalty generally refers to the negative behaviour, attitude and views that consumers exhibit towards brands that are rivals to their preferred one (Muniz and O'Guinn, 2001; Thompson and Sinha, 2008).

The social identification theory has recently been used to explain this phenomenon. According to it, the individual uses social structures such as BCs to define him or herself. The suggestion of Tajfel (1979) that social identity creates bias towards the outsiders of a certain group also applies in marketing and BCs (Brown, 2000; Hogg and Abrams, 2003). More specifically, BC members tend to compare rival products or services to those of the preferred brand and highlight their disadvantages (Brown, 2000). As discussed in sections 2.4.2 and 2.4.3, higher participation in a BC enhances commitment towards that community, making the out-group biases even stronger.

Building on Muniz and O'Guinn's (2001) distinction of brand loyalty into definitive loyalty to the preferred brand and oppositional loyalty to competing brands, Kuo and Hu (2014) further speculate that consumers categorize similar brands according to those they buy and those they do not. As oppositional brand loyalty is founded on the consciousness of kind developed between community members (Muniz and O'Guinn, 2001), community members tend to differentiate themselves from opposing brands based on this shared consciousness. This is particularly true in markets where only a few firms compete (such as duopolies or oligopolies) where this need for differentiation is stronger. To give an example, iPhone users are expected to show strong negative emotions towards Android phones, or luxury airline passengers are expected to oppose budget airlines. The negative feelings towards rival brands can be expressed by consumers in various ways; The most palpable one is by limiting their purchasing choices to their preferred brands only (Hickman and Ward, 2007), while encouraging others to use a brand even when they have not purchased goods or services from it themselves (Muniz and Hamer, 2001). Marticotte et al. (2016) further proposes that these negative feelings might be a result of dissatisfaction (Tuzovic, 2010) or poor experience with a certain brand or with a brand that harmed the individual. In this case, people's intentions include harming the opposing brand by negative WOM, negative referrals and even 'trash-talking' or schadenfreude (Japutra et al., 2014). The latter refers to the acquisition of malevolent pleasure found in harming others (Feather and Sherman, 2002; Cikara and Fiske, 2012).

With regards to OBCs, Thompson and Sinha (2008) posit that a BC (or OBC in this thesis) can be used by members who oppose rival brands to normalize their behaviour and to receive approval and positive feedback. It is not then a coincidence that these researchers also identified that members

who have greater participation exhibit higher levels of oppositional brand loyalty. Oppositional brand loyalty research in OBCs has also revealed that negative comments about rivalry induce a sense of rejection towards competitive brands (Algesheimer et al., 2005).

Elaborating further on the role of oppositional brand loyalty in OBCs, research has shown that it is a crucial part of the community experience (Kuo and Feng, 2013) and is even regarded as a component of the brand (Muniz and O’Guinn, 2001). Furthermore, it is related to higher profitability for the brand as consumers use it to give their preferred brand a competitive advantage (Dixon, 2007). Although oppositional brand loyalty is directed towards rival brands, this opposition is often not expressed directly (to the competing brand) but via comments that target the general audience and customers of other brands (Maricotte et al., 2016). These negative comments, or negative WOM, are usually uploaded to OBCs (especially on social media platforms in the last decade) or websites to ensure they will be seen by as many third parties as possible. OBCs have proved to be a very useful tool in enhancing brands’ profitability through oppositional brand loyalty. Active OBC participants tend to reject rival brands more. Even in the case that a rival brand introduces a product which is better and more useful, OBC members of the focal brand can be expected to delay its adoption, or resist it altogether in the hope that their brand will introduce a new and better one (Thompson and Sinha, 2008). This behaviour weakens competition and is therefore tremendously profitable for the brand (Kuo and Feng, 2013).

Table 6: Definitions of the constructs used in this thesis

Construct	Definition	Source
Brand awareness	The ability of the decision-makers in [an] organizational buying center to recognize or recall a brand	(Homburg, Klarmann and Schmitt, 2010)
OBC identification	The strength of the consumer’s relationship with the community	Algesheimer et al. (2005)
OBC commitment	The attitudinal factor which reflects OBC members’ attitude towards the OBC they belong to	Moqbel et al. (2013)
Brand attachment	The strength of the bond connecting the brand and the self	Park et al. (2010)
Brand identification	A consumer’s perceived state of oneness with a brand	Stockburger-Sauer et al. (2012)
Brand trust	The average customer’s willingness to rely on the ability of the brand to perform its stated function	Casalo et al. (2007)
Brand commitment	An enduring desire to maintain a valued relationship with a brand	Moorman and Zaltman (1992)
WOM	The intentional influencing of consumer-consumer communications by professional marketing techniques	Kozinets et al. (2010)
Willingness to pay a price premium	The sum that customers are willing to pay for products from the brand is higher than the sum they are willing to pay for similar products from other relevant brands	Aaker (1999)
Oppositional brand loyalty	Loyal users of a given brand may derive an important component of the meaning of the brand and their sense of self from their perceptions of competing brands and may express their brand loyalty by opposing competing brands	Muniz and Hamer (2001)

Source: The author

2.5 Summary

The literature review chapter outlines the boundaries of this thesis, describing in detail the constructs that are used for the conceptual model within the RM, OBC and social identification contexts. Specifically, the constructs that are analysed are OBC identification and OBC commitment, brand attachment, trust and commitment, oppositional brand loyalty, willingness to pay a price premium and WOM. Throughout the chapter, a clear conceptualization of RM and OBCs is given, as well as an analysis of their evolution in the past few decades. A systematic overview of the relevant research is provided to further justify this thesis and its objectives. Through a thorough review of the previously published work, it is revealed that certain aspects that relate OBC outcomes and brand outcomes are yet to be comprehensively studied. More specifically, there is a lack of understanding of the brand equity-generation process through participation in OBCs.

This review is profoundly skewed toward viewing an OBC from the brand's point of view. Although much attention is given on members' relational emotions and incentives to sustain their relationship with other OBC members and consequently with the brand, this is done to examine in which ways the brand can benefit from these relationships, increasing its equity. With this taken into account, the constructs of this study have not been previously put together in a single conceptual model to examine their underlying interrelations. For example, brand trust has not been included in an identification-commitment model and OBC-generated commitment's positive effects on oppositional brand loyalty and willingness to pay a price premium have not been deliberated. Furthermore, the commitment-trust theory of relationship marketing (Morgan and Hunt, 1994) has not been tested as a mediator between OBC-outcomes and brand-outcomes in any other context than the B2B. The field of OBCs is a rather vast one hence many other constructs could have been encompassed in the model. It is the researcher's belief however that the constructs chosen can better respond to the research questions and meet its objectives.

The literature review chapter has provided three chief conclusions. First, when studying OBCs, it is important that the review of marketing literature should emphasize RM. Since, from a brand's standpoint, OBCs are used as vehicles to retain customers and increase profits, successful RM strategies provide insights into how to utilise these communities to increase brand-related equity (Grewal and Evans, 2006). Additionally, with the evolution of Internet, smartphones and social media, RM has regained its past splendour and is now considered vital and central in every marketing effort (Nambisan and Baron, 2007; Zwass, 2010; Sheth, 2017). Second, OBCs is a constantly evolving phenomenon that requires intense and persistent research as the technological progress creates new types of virtual communities, new structures and new platforms that can host them (eg. the social media). Their mode can also differ significantly ranging from brand-initiated to

customer-initiated and from completely open to entirely closed. The choice of the appropriate OBCs in marketing research should be based on the aims of each study. Third, the constructs constituting the customer-brand relationship can be numerous. An agreement on how these relationships are being formed does not exist, therefore experimentation with various conceptualizations of OBC-generated customer-brand relationships might be needed until a widely-accepted method is agreed. It is generally recognised however that relationships within an OBC take the form of identification and commitment to the community and its members (Algesheimer et al., 2005). It is also acknowledged that social identity plays a pivotal role in cherishing and preserving such relationships (Bagozzi and Dholakia, 2002). The researcher is therefore given a variety of tools (constructs) to examine these relationships based on his or her studies' purpose.

The following chapter examines the hypothesized causal links between these proposed constructs in the form of a conceptual model which is empirically tested.

3.0 The conceptual model

“Creativity is just connecting things. When you ask creative people how they did something, they feel a little guilty because they didn't really do it, they just saw something. It seemed obvious to them after a while. That's because they were able to connect experiences they've had and synthesize new things.”

Steve Jobs

3.1 Introduction

Drawing on the literature review which was conducted as a preface for this thesis, a theoretical framework has been developed to utilise a set of RM constructs, as well as a solid RM theory to enhance the understanding of how OBC participation strengthens customer-brand relationships and subsequently creates positive intentions and behaviours towards the brand. This chapter begins with the introduction of commitment-trust theory (section 3.2) of relationship marketing (Morgan and Hunt, 1994). This particular theory was selected because it has consistently been quantitatively confirmed by the vast majority of researches which it has been used in (Elbeltagi and Agag, 2016) but has not been employed in the OBC context. Its strength and reliability in empirical research, as well as its ability to quantify relationships, rendered it the strongest candidate to examine an entity which is entirely relationship-based such as the OBC. Other RM theories have regularly been used in OBC research. These include segmentation theory (Dickson and Ginter, 1987), function/risk theory (Peter and Donnelly, 2003) and the innovation diffusion theory (Rogers, 1995), since OBCs are often used as vehicles for innovation. All three however would be inadequate in serving the aim of this thesis which is the examination of relationship-building processes within an OBC.

The measured constructs of this study are nine: OBC identification (OBCI), OBC commitment (OBCC), brand attachment (BA), brand identification (BI), brand trust (BT), brand commitment (BC), Word-Of-Mouth (WOM), willingness to pay a price premium (WTPP) and oppositional brand loyalty (OBL) and their interrelations are scrutinized in section 3.3. The 12 core and 2 subsequent hypotheses of the thesis are then presented in detail. The chapter completes with a short conclusion section (3.4).

3.2 The commitment-trust theory of relationship marketing and its application in this thesis

Commitment-trust theory proposed by Morgan and Hunt in 1994 represents the customer intentions in this study. The theory proposes that trust and commitment are the two most basic aspects of RM. Commitment and trust are fundamental in the creation of lasting relationships with exchange partners, they contribute to the resistance of attractive short-term alternatives (Kang et

al., 2015) and to the avoidance of opportunistic behaviour in favour of sustaining an existing valued relationship. This thesis does not aim to challenge or further develop this theory apart from testing its applicability in the OBC context for the first time but it is rather used as a valuable tool that conveniently mediates the antecedents of an intention with its behavioural outcomes. This intention is conceptualized as brand trust and brand commitment.

Morgan and Hunt's renowned commitment-trust theory was initially used to describe relationships between sellers and buyers in the B2B environment. Its principal constructs, trust and commitment, were examined through the lens of an exchange and not a brand relationship. In other words, the theory used the terms relationship commitment and relationship trust which lead to behaviours that are favourable to organisations such as repeated purchases and propensity to stay in this relationship of exchange. A close examination of the recent literature however allows for the replacement of the term relationship with the term brand. The original notions of relationship trust and relationship commitment can then be used and translated to brand trust and brand commitment.

Morgan and Hunt (1994) posit that customers are rational beings and as such they pursue the full value in every transaction, so they try to be involved in those buyer-seller relationships which offer them the most value. Therefore, they proposed that they could not identify any significant specificities that would render their theory inapplicable in the B2C context. Additionally, Turri et al. (2013), building on Morgan and Hunt's theory, suggest that affective commitment involves a strong desire to uphold a relationship that the customer perceives to be of high value. Consumers who are committed to a brand are less costly to retain, less susceptible to competitive efforts, brand errors or service failures and willing to pay a price premium. They often also desire to convert others to the brand via brand advocacy, clearly indicating a close relationship between brand commitment and relationship commitment in the B2C context. Sung and Campbell (2009) also use Morgan and Hunt's commitment-trust theory in their empirical work to conceptualize brand commitment. More specifically, they recognise commitment and trust as the key variables of sustaining and conserving a customer-brand relationship, of circumventing similar relationships with outsiders (other brands) and of reducing the perceived risk in an exchange network. Similarly, Hess and Story (2005) suggest that all relationships, irrespective of whether they are between people or between individuals and brands, are built on trust, confirming that the commitment-trust theory could be used in branding studies. Moreover, they even strengthen the brand's role in a relationship by stating that, while brand-customer connections usually take time to develop, they are long-lasting and include a sense of emotional investment and personal attachment to the brand. Several other researchers (Sahin,

Kitapci and Zehir, 2013; Ercis et al., 2012; Shi, 2014) have used the CM theory, explaining customer-brand relationships in B2C markets.

Focusing on the OBC field, Hur et al. (2011) empirically identify trust as the single most significant precursor of commitment in relationships of any type (such as buyer-seller, interpersonal, B2B or B2C and OBCs), including those between the brand and its customers. They justify the selection of the CM theory in their research based on the continuity of relationships that are allowed in an OBC. Furthermore, Kang et al. (2015) suggest that active participation in OBCs is positively associated with the generation of brand trust and brand commitment, extending the theory to an online (SNS) context. They posit that OBCs allow repeated interactions between the brand and the customer which can lead to the generation of commitment and trust. Similarly, Li, Browne and Wetherbe (2006) also propose that the theory holds in the online B2C environment and they use it to predict future customer behaviours. Mukherjee and Nath (2007) also extend the CM theory to the B2C context (online retailing), justifying the concepts of trust and commitment as central in the relationship-generation process.

The above indicate that the commitment-trust theory was not used here as a matter of convenience but it was chosen based on previous research which has proven its applicability to the thesis' context. While this theory was initially a means to measure commitment and trust in relationships, research has revealed that it can also be a valuable tool in examining and measuring commitment and trust in brands. In OBCs, the theory is used to describe relationships that are being developed through participation in them, for a period that is sufficient for commitment and trust to occur (Yen, 2009). Committed members are expected to build robust relationships with others and thus strive to maintain a long-term association with the OBC (Li et al., 2006). This motivation to remain part of the community contributes to the longevity of the OBC (Huang et al., 2008). Similarly, regular and reliable communication between members enhances their trust towards the OBC (Yen, 2009). It is therefore evident that the greater the participation in an OBC, the more applicable the commitment-trust theory is (Yen, 2009). Moreover, the use of the theory is expedient with regards to the aims of this study because it precisely describes the link between the antecedents and the outcomes of intentions which are actual behaviours. Trust and commitment represent the attitudinal constructs that are being created as a result of customer-brand relationships, while oppositional brand loyalty, WOM and willingness to pay a price premium are the behavioural consequences of these attitudes. It is therefore a very suitable theory in the OBC context as OBCs are necessarily customer-brand relationship-building spaces (Arsel and Thompson, 2011; Fournier and Avery, 2011; Muniz and Schau, 2007; Berthon et al., 2012; Cova et al., 2011; Weijo et al., 2014; Casalo et al., 2009; Habibi et al., 2012; Dessart et al., 2015; Sheth, 2017).

3.3 The conceptual model

This section analyses the conception of the theoretical model along with its underlying hypotheses.

3.3.1 Structure of the conceptual model

The conceptual model is divided into three sections. Its first part describes the mechanisms through which relationships between the members themselves and between the customers and the brand are being built within the boundaries of an OBC. These antecedents of a trusted and committed relationship include OBC commitment and identification, brand identification and brand attachment. In this part of the model, it is suggested that commitment and identification with an OBC are positively associated with commitment and identification with the brand that the OBC supports. Furthermore, it recognises brand attachment as a potential mediator in the relationship between brand identification and brand commitment and in the relationship between OBC commitment and brand commitment.

The second part of the framework represents the commitment-trust theory which was proposed by Morgan and Hunt in 1994 and which distinguishes these two constructs as the epicentre of any long-term sustainable business relationship. Morgan and Hunt (1994) suggest that trust and commitment are the two essential preconditions for any business-related relationships to work. For this thesis, commitment and trust are describing the relationship intentions between brands and consumers and it is theorised that OBCs play a pivotal role in improving them. The commitment-trust theory is brought here not only to conceptually validate Zhou et al.'s (2012) theoretical model which provides confirmation of a positive association between OBC participation and brand commitment but without sufficient theoretical justification, but also to expand it by incorporating constructs representing positive behaviours toward the brand.

While the vast majority of relevant studies (section 1.3.1) focus exclusively, and use as their ending points, constructs such as brand loyalty and brand commitment which represent positive attitudes or intentions toward a brand, only a few have gone further, linking these attitudes to favourable behaviours. The constructs that have been chosen to represent these behaviours are WOM communications, the OBC members' willingness to pay a price premium to buy their favoured brand and the oppositional brand loyalty which represents a brand's customers' negative perceptions and behaviours towards competition.

3.3.2 OBC-related relationships

The causal relationship between brand awareness and OBC identification here is not being tested statistically. A sizeable number of recent researches (Madhavaram et al., 2005; Jakeli and Tchumburidze, 2012; Lin, 2013; Sam, 2012; Wu and Lo, 2009; Luo, Zhang, Hu and Wang, 2016; Barreda, Bilgihan, Nusair and Okumus, 2015) have empirically confirmed that people who are aware of the existence of a certain brand are much more likely to search for its virtual community online and become participating and identified members. Further testing of this connectedness would simply be a repetition of similar other topical studies. Brand awareness is however present in the conceptual model to differentiate this research from others suggesting that brand awareness is in fact an outcome of OBC participation (Füller, Schroll and von Hippel, 2013; Kleinrichert, Ergul, Johnson and Uydaci, 2012; Villarejo-Ramos and Sanchez-Franco 2005; Buil, de Chernantony and Martinez, 2013). Although it would be reasonable to assume that members of an OBC are able to recognise the brand which is supported by the community they participate in, this notion lacks the justification as to how members discovered the OBC in the first place and why they chose to participate. The school of thought suggesting that OBC identification is an outcome of brand awareness and which comes to an agreement with this particular thesis, suggests that without brand awareness, people do not have the necessary information to join OBCs. Furthermore, as identification represents a state of belonging, it is highly unlikely that people would choose to identify with a community that supports a brand that is unknown to them or one for which they do not have a high opinion of. OBCs are therefore platforms to enhance the bonds and the connections between a brand and its customers but it would make little sense to utilize them as an awareness-building stage. Therefore:

Brand awareness is what triggers OBC identification

The theorized positive relationship between OBC identification and OBC commitment is rooted in the work of Bhattacharya and Sen (2003). The researchers developed a theoretical conceptual model which examines the psychological process of identification and the effects it has on people's attitudes and behaviours. This assumption is founded on the premise that OBC identification, as a form of group identification, shapes the way people define themselves (Mael and Ashforth, 1992) through a set of shared and commonly accepted values and experiences (Carlson, Suter and Brown, 2008). As the individual develops positive emotions and a sense of belonging towards an OBC (Schau and Muniz, 2002), then he or she also develops a sense of commitment towards it (Meyer and Allen, 1991). This thesis responds to the call of Bhattacharya and Sen (2003) for empirical testing of their model and Marzocchi et al.'s (2013) assumption that community identification may have a direct

effect on intention-related constructs by hypothesizing a causal and positive relationship between them.

Diving deeper into the literature, evidence for this relationship was also given by Homburg et al. (2009), who posited that group identification and group loyalty or commitment are two separate things and that identification is a precursor of loyalty or commitment (Haumann et al., 2014). The social identification theory also confirms that loyalty is being reinforced by a sense of belonging (identification) and that the benefits that the consumer acquires via this participation, or belongingness, will disappear if they leave the OBC (Ahearne et al., 2005). Mathwick, Wiertz and de Ruyter (2008) and Zhou et al. (2012) summarise all of the above by suggesting that the experiences and values that group members receive from consuming the same brand and drawing utility from participating in the same OBC are likely to make them commit to the OBC and strive to uphold a lasting relationship with it.

Group commitment, or OBC commitment in this particular case, is crucial for the very existence, as well as for the prosperity of the OBC. Members that are identified with the group will engage in attitudes that are favourable to it in order to enhance its status (Pop and Woratschek, 2007) and to assist it in achieving its goals (Bhattacharya and Sen, 2003). With the presence of a strong sense of social identification, the group becomes much more cohesive and members evaluate it positively, increasing their propensity to stay in the group and participate more.

Shen and Chiou (2009) suggest that within OBCs, identified members can see and treat others as family and hence strive to support the community achieve its long-term goals. Algesheimer et al. (2005) and Stokburger-Sauer (2010) have also successfully extended studies belonging to other realms to the context of OBCs, empirically supporting a positive relationship between OBC identification and OBC commitment. Moreover, Hammedi, Kandampulli, Zhang and Bouquiaux (2015) postulate that the greater the identification members have with an OBC, the more connected they become with one another and therefore develop strong feelings of commitment to the community.

The relationship between these two constructs has also been studied through a social influence lens, which is very relevant to social identification. According to Ahearne et al. (2005), high levels of OBC identification induce members to 'act' on this identification, promoting the OBC to outsiders and strengthening the sense of community among existing members (Hammedi et al., 2015). This is particularly important since attracting more members to an OBC has the potential to provide more customers to the brand. Social influence coming from OBC-identified individuals then has a strong influencing potential on the society. Identified members do not only commit themselves to the OBC

and become stakeholders in its success or failure but also attempt to persuade other people to do the same (Alexandrov, Lilly and Babakus, 2013) adding more value to the OBC and, as per the discussion in section 2.4.2, to the brand itself.

Based on the theoretical and empirical evidence presented above, this thesis proposes that

H1: Online brand community identification influences online brand community commitment positively

Before theorizing a relationship between these two marketing constructs, it is interesting to elaborate on their similarities and differences since literature, sometimes capriciously, mingles them and regards them as the same. For example, Mowday et al. (1982) and Porter, Steers and Legge (1995) regard brand identification as part of affective brand commitment. A careful examination of the constructs however reveals that they might be mutually reinforcing but they are also inherently and conceptually distinct (Ashforth and Mael, 1989; Silvestro, 2002).

Identification with a brand involves a sense of belonging to it (Punjaisri, Evanschitzky and Wilson, 2009). This sense of oneness induces the consumer to personify an entity (Mael and Ashforth, 1992), improve its external image (Turner et al., 1986) and take pride in being its customer (Punjaisri et al., 2009). Identification is a rather flexible emotion which can swing according to the brand characteristics or experiences (Gautam et al., 2004). As discussed in section 2.4.5, social identification theory has also been used to explain the social characteristics of brand identification. While some researchers emphasise the cognitive features of identification, social identification theory also recognises some affective ones. In particular, Tajfel (1978) highlights that identification with a social identity generates value and emotional meaning for the consumer and thus identification is comprised of both affective and cognitive aspects (Johnson, Morgeson and Hekman, 2012). Cognitive identification, defined as the degree to which people feel a sense of belonging to an organisation, predicts affective identification which describes the degree to which people feel good about belonging to that entity (Johnson et al., 2012).

Commitment, on the other hand, is defined as “an enduring desire to maintain a valued relationship” (Moorman et al., 1993, p. 316) and contrastingly to identification, it involves a motivational state. Described through that lens, brand commitment is itself a dual-faceted concept which is comprised of an affective (emotional attachment to a brand) and a social compliance (need for approval and actual purchasing attitudes) component (Tuskej et al., 2013). Both components are resulting in high customer involvement (Ellis, 2000). Commitment is also an enduring, sturdy and stable emotion that is resistant to future shifts (Gautam et al., 2004). While identification does not essentially translate to positive brand attitudes, commitment does, meaning that the self and the

brand are two separate entities in a marketing relationship (Ashforth, Harrison and Corely, 2008). This attitudinal standpoint of brand commitment reflects not only an emotional bond between the brand and the self but also the effort that people are willing to employ (Burmam and Zeplin, 2005) in order to maintain it because they see themselves as part of the brand's fate (Mael and Ashforth, 1995). This effort is not limited to only purchasing a certain brand but also extends to regarding it as the only adequate choice (Warrington and Shim, 2000).

Contemporary RM literature refrains from juxtaposing brand identification and brand commitment and tends to assume that commitment is a logical outcome of identification (Stokburger-Sauer and Teichmann, 2014). While an observable and strong association between these two constructs is apparent (Wan-Huggins, Riordan and Griffeth, 1998) in the sense that they both indicate a strong consumer-brand relationship (Keh and Xie, 2009), commitment is generally seen as an outcome of identification (Bhattacharya and Sen, 2003). Riketta (2005) further posits that the two have different antecedents and outcomes, while identification is the very foundation in the process of brand commitment formation (Meyer and Herscovitch, 2001). Indeed, Fullerton (2005) asserts that brand commitment is deeply rooted in brand identification and brands with highly identified customers enjoy financial benefits in terms of brand commitment (Keh and Xie, 2009). Brown, Barry and Gunst (2005) and Kim, Dongchul and Aeung-Bae (2001) have also found that people who identify with a brand are much more likely to become committed to it and assist it achieve its goals. Very relevant to the social identification theory which is widely used to describe customer-brand relationships in this thesis, several researchers (Dutton, Dukerich and Harquail, 1994; Hamilton and Xiaolan, 2005; Foreman and Whetten, 2002; Kressman, Sirgy, Herrmann, Huber, Huber and Lee, 2006) agree that shared values between the brand and the customer influence both identification and commitment. The process of bonding and oneness however starts by the customer identifying with his or her brand of choice and then committing to it (Brown et al., 2005). These shared values therefore contribute to the belief that the brand is part of the self, strengthening self-esteem and status (Wang, 2002) and self-identification and satisfaction (Park, MacInnis and Priester, 2007) and consequently commitment. This thesis hypothesizes that

H2: Brand identification strongly and positively influences brand commitment

The relationship between community identification and brand identification is a very understudied one. Only limited evidence exists on how the former influences the latter, while much of the evidence has not been empirically tested (Zhou et al., 2012). Central to this hypothesis is the fact that consumers can identify with multiple targets (Popp and Woratzchek, 2017). The social identification theory (Turner et al., 1987) suggests that people can belong and identify with multiple brand-related entities, or other socially-constructed dimensions of identity, that interplay with one

another. Furthermore, Ambler (2002) posits that since consumers can identify with the brand, the company or other consumers (i.e. via an OBC), it is not only important to recognise that identification is a multifaceted marketing phenomenon, but it is also essential to analyse the relationships between these different identification targets in order to capture the social dimension of the construct as a whole. The literature distinguishes between the constructs of community identification and brand identification, recognising them as separate (Marzocchi, Morandin and Bergami, 2013; Popp, Wilson, Horbel and Woratzchek, 2016); this distinction is very important in rationalising the need to examine their relationship when investigating consumer behaviour.

Recent RM studies (Marzocchi et al., 2013; Popp and Woratzchek, 2017) have treated the two constructs distinctly, examining their effects on brand trust, affect, loyalty and WOM. They have, however, not assumed any relationship between them, or that one may influence the other. An obvious limitation of both studies is the fact that their sample comes from a single brand and BC. Furthermore, both studies survey people that take part in brandfests. While their findings are interesting and important, it is reasonably expected that people who take part in a brandfest are already identified with both the community and the brand hence managerial efforts should focus on maintaining this relationship instead of building it, a proposal which is central to this thesis. Two of the most influential studies that have theorised a causal relationship between community and brand identification are contradictory. Based on the assumption that consumers adopt brands that portray, or are similar to their self-perceptions, Algesheimer et al. (2005) suggest that community identification is derived from the customer-brand relationship. Conversely, Bagozzi and Dholakia (2006a) hypothesize that social identification results in brand identification, denoting that brand identification stems from identification with BCs (Mzoughi, Ahmed and Ayed, 2010). In line with Zhou et al. (2012) and Stokburger-Sauer (2010), this thesis recognises brand identification as a consequence of OBC identification since an OBC produces better informed, experienced and involved customers. Furthermore, as discussed in section 2.4.2, personal interaction within an OBC may lead to the creation of a common set of values which, in the case of a community that is dedicated to a brand, leads to favourable outcomes for that particular brand. In addition, while this thesis does not challenge the fact that identification with a brand may lead to OBC identification, it examines the formation of brand relationships through the lens of an OBC. It would then make little sense to managers to improve their virtual community and encourage member participation as the members would already be identified with the brand and would therefore be loyal customers.

H3: OBC identification positively influences brand identification

It has been previously discussed that OBC commitment is comprised of three commitment types: continuance, affective and normative. Although this thesis is primarily concerned with affective and

normative commitment as aspects of RM and for simplicity reasons will refer to them simply as OBC commitment, it is worth mentioning briefly how these three distinct types of OBC commitment are related to brand commitment. In terms of affective BC commitment, members who are identified with the community and share strong feelings of belonging to it, will opt to maintain this relationship by continuing to purchase the brand's products or services (Blanchard and Markus, 2004; Markus, Manville and Agres, 2000). They will also try to enhance their brand experience by adopting behaviours that are very positive towards the brand that the OBC supports (Zhang et al., 2013). As far as the normative commitment is concerned, it is based on the idea that committed OBC members become stakeholders in the community's success or failure (Ashforth and Mael, 1989). A successful OBC is one that promotes the brand which it is centred around (Algesheimer et al., 2005) hence committed members feel a natural inclination and obligation to support the focal brand by repurchasing its products and services (Kim et al., 2008). At the same time, they are much less likely to make purchases from competing brands since this will jeopardise their relationship with other community members and consequently with the OBC as a whole (Scarpi, 2010). Indeed, He and Li (2011) further posit that turning to a competing brand will cause a cognitive dissonance which may affect in-group relationships negatively. Finally, continuance OBC commitment leads to brand commitment as members have committed to the group in order to enjoy hedonic, social and functional benefits, or to establish an identity (Bateman, Gray and Butler, 2011), having already put substantial effort into building relationships with others. These members therefore find it significantly economic and socially inefficient to switch to another brand (Zhang et al., 2013).

Kim et al. (2008) indicate that when a customer is exposed to an environment which is favourable towards a specific brand and when he or she feels emotionally attached and committed to this environment, then he or she will be more inclined to show a favourable attitude towards the brand itself. Prior research has also shown that BC members share their experiences about a brand, create shared meanings with other members (and with the brand) and create norms and customs of what is acceptable or appropriate and what is not (Muniz and O'Guinn, 2001). Brown and Reingen (1987, p. 352) additionally indicate that

[...] when online community members receive favourable information about products from reliable sources and are connected with others who share a common interest in a network relationship (also referred as 'homophily' in the network theory literature), then they are more prone to view the brand favourably [...]

Brauer, Judd and Gliner (1995) further propose that group discussion has a significant impact on attitude polarization and as such, OBC commitment directly and positively affects brand commitment.

Zhou et al. (2012) support that in the case of OBCs, brand commitment cannot be straightforwardly generated and guaranteed. The brand, or the community owners, shall first encourage the cultivation of consumer emotion and attachment towards the community itself. The existence of commitment is essential not only for the OBC's long-term survival since group identification is operationalized through commitment to the group (Bagozzi and Dholakia 2002) but also for the brand's. The social identification theory suggests that commitment to a social group such as an OBC (Kim et al., 2008) leads to individual commitment towards achieving the goals of that group (Dutton and Dukerich, 1991). Commitment to an OBC can be very strong. Research has even shown that the sense of commitment to an OBC can be greater than to other types of offline or online communities (Muniz and O'Guinn, 2001), signalling that the flow of information in these groups is so constant and perceived as reliable from members that it induces them to view the products or the services widely discussed in these groups positively (Brown and Reingen, 1987).

Based on the above, this thesis proposes that intimate relationships between OBC members are likely to affect the relationships between OBC members and the related brands. Participating in the community's commitment-building activities is enhancing the value of the object of the community and the members' perceptions and attitudes towards it. Although a bidirectional relationship between OBC commitment and brand commitment has been observed (De Almeida, Mazzon and Dholakia, 2008; Gavard-Perret and Raies, 2011), examining brand commitment consequences to OBCs would, apart from examining a rationally straightforward relationship, change the scope of this thesis which is to inspect the role of OBCs in brand performance. It is therefore suggested that

H4: Online brand community commitment positively affects brand commitment

Faithful to section 2.4.3 and the definition of OBC commitment, this thesis divides OBC commitment into three broad categories; continuance, normative and affective (Zhang et al., 2013) and bases its association to brand attachment accordingly. Attachment, is an "emotion-laden, target-specific bond between a person and a specific object" (Bowlby, 1979, p. 122) and thus it exists (or develops) in cases where "people get together to share emotions" (Thomson et al., 2005, p. 21). An OBC is a virtual space that allows and encourages these intimate interactions and therefore attachment's role as a consequence of OBC participation and commitment is imperative. Attachment in online branding literature is defined as the strength or extent to which OBC members connect to the focal brand that the OBC supports (Park, MacInnis, Priester, Eisingerich and Iacobucci, 2010).

Central in this relationship is the assumption that OBC members who are bonded to the community will interact with other members more, developing emotions of affection, identification and attachment to the community and, perhaps, the focal brand (Meyer, Stanley and Herscovitch, 2002).

These emotions of attachment incentivize members to invest more of their time assisting the community reach its goals, help others and put more effort in building strong relationships (Zhang et al., 2013). Attachment to the OBC is empirically proven to positively affect brand attachment (Algesheimer et al., 2005) hence the theorization that community commitment has a causal effect on brand attachment. Indeed, Fournier (1998) and Olsen (1993) posit that learning and socialising in terms of acquiring new skills, knowledge, attitudes and becoming a more informed consumer in general (Ward, 1974), is important in creating and maintaining strong attachments to brands. Douglas and Nguyen (2011) examined brand attachment as an outcome of brand relationships and were focused on how brand choice helps maintain in-group cohesion. They identified that a family, much like an OBC, that customarily buys cars from a specific manufacturer, regards that manufacturer as a part of them. These “kinships” (Fournier, 1998) are often so strong that, in the case of an OBC, can keep the group together and deem substitutes unacceptable (Grisaffe and Nguyen, 2011).

From a normative point of view, brand attachment is a result of a moral obligation that the OBC members have toward the community and the brand that it is set for (Zhang et al., 2013). In-group socialization involves story-telling, sharing of personal experiences and other value-building activities that induce members to preserve and strengthen the OBC in order to preserve and strengthen something of high personal and emotional value (Wasko and Faraj, 2005). This attachment is then based on protecting and solidifying an online experience that affirms the sense of self, while simultaneously avoiding other experiences that are contrasting to it (Swann, 1993). Members regard it as their ‘responsibility’ to behave in ways that protect the community and the brand and to generate attachments to it (Zhang et al., 2013). Continuous interaction between OBC members leads to the realisation of not only collective value but also utility from consuming the same brand (Zhou et al., 2012) which, in turn, stimulates the generation of brand attachment (Caroll and Ahuvia, 2006).

Relationship preservation due to lack of alternatives and high switching costs is not a central theme of this thesis, brand attachment literature has revealed however that even when a marketing relationship is being conserved due to high sunk costs, emotional bonds are still being formed (Anderson and Weitz, 1992). Even in OBCs where members participate due to the non-existence of competition, value and utility are being created over time (Zhang et al., 2013) and result in strong bonds between community members and between consumers and brands (Zhou et al., 2012). This is particularly true in the case of highly sophisticated products where individuals join OBCs to seek help with their use or properties but intimate conversations they have with other members and the help they receive from them, generates emotional value, added to the functional one in the relationship and offers a motivation to stay in it (Park et al., 2006). Besides, Park et al. (2010) suggest that

committed OBC members understand and sense the brand better as a result of a long-term interaction with other members (and sometimes with the brand itself) and then regard the brand as part of who they are, generating automatic thoughts and feelings towards it and form a robust personal connection with it.

Even though the relationship between brand attachment and community commitment is bidirectional (Algesheimer et al., 2005), the drive of this thesis is to examine the effect that OBCs have on brands. Accordingly, it hypothesizes that

H5a. Brand community commitment has a strong positive influence on brand attachment

Attachment is central in examining customer-brand relationships in this study. People, as consumers, can both attach to tangible and intangible entities (Lastovicka and Gardner, 1979). Consequently, they can also attach to brands (Ball and Tasaki, 1992) since they can offer them positive experiences (Orth, Limon and Rose, 2010), desirable characteristics (Robins, Caspi and Moffitt, 2000) and personalised styles (Swaminathan, Stilley and Ahluwalia, 2009). Brand attachment has the potential to generate strong relationships between brands and consumers, hence it has been characterised as a principal foundation stone of RM (Paulssen, 2009). Thomson et al. (2005) suggest that in RM literature, brand attachment sustains and reinforces strong and lasting brand-customer exchanges. Commitment reflects an essential human need (Bowlby, 1979) and leads to strong interpersonal relationships, or relationships between people and intangible entities. Brand attachment is comprised of two basic elements: the brand-self connection and the brand prominence. The former describes to what extent the brand is related to the self, based on positive feelings and experiences or memories, while the latter is used to predict the strength of this relation (Han, Nunez and Dreze, 2011).

The strength of attachment to a certain brand determines how much customers are willing to immediately give up, including short-term benefits, in order to maintain a relationship. Therefore, brand attachment describes customers' emotional commitment to a brand and predicts the sacrifices they are willing to make to stay in the relationship (Thomson et al., 2005). Lacoecilhe and Belaid (2007) have further hypothesized that attachment also plays an important role in customers' intentions towards a brand, suggesting that it positively influences the attitudinal aspect of loyalty, which is commitment (Louis and Lombart, 2010). Attachment, as a human need, urges people to create committed relationships with brands (Schmaltz and Orth, 2012). Thomson et al. (2005) have empirically identified brand commitment as a direct consequence of brand attachment. They posited that attachment describes both the cognitive and emotional ties between brands and their customers and indicates solid brand-customer relationships which extend beyond a mere allocation

of resources towards a brand, to immediate retrieval of positive brand-related thoughts and feelings. Ahluwalia et al. (2000) put this in a marketing context suggesting that customers who have strong emotional bonds with brands, are expected to engage in behaviours that build equity for the brand. Commitment, as a key characteristic of attitudinal loyalty (Aaker, 1991), is then expected to be causally influenced by customers' attachment to a brand.

As opposed to calculative commitment³, which is still relevant but not central in this study, research carried out by Lacoëuilhe (2000) showed that emotional commitment is a more direct outcome of consumers' attachment to brands. Likewise, Goueron (2008) found that as consumers develop positive emotions towards a certain brand, they become attached to it and these emotions are becoming behaviours in terms of committed actions. Emotional commitment is also affected by the connection between the brand and the customer which is a result of brand attachment due to self-defining characteristics of the brand (Schmaltz and Orth, 2012). Emotional or normative commitment, in contrast to calculative, also requires more time to be developed. Attaching oneself with an entity is a lengthy procedure that evolves and develops over time (Baldwin, Keelan, Fehr, Enns and Koh-Rangarajoo, 1996), motivating the creation of meaning and a strong desire to sustain the relationship as a consequence of the struggle to uphold the self-concept (Mikulincer et al., 2011). Understanding the causal link between brand attachment and emotional brand commitment is then very important in understanding what differentiates brands and makes some more successful than others (Lacoëuilhe, 2000). Purchases that are solely based on the lack of alternatives or high sunk costs result in a type of bond which is not sustainable or lasting and therefore less desirable than one that would be founded on feelings of attachment and commitment. Reviewing the relevant literature, this thesis suggests that

H5b: There is a causal link between customers' attachment to a brand and their commitment to that brand

Park et al. (2006, p. 34) define brand attachment as the "strength of cognitive and emotional bond between brands and consumers". The definition is consistent with Aron and Aron's (1986) position that attachment is always motivated. This description is particularly relevant to this thesis' conceptual foundation since attachment is linked to affective memories and experiences that form a bond between the self and the object (Mikulincer et al., 2001), which in this case is the brand.

The association between identification and attachment is a fundamental one and is rooted in the social identification theory where Tajfel and Turner (1986) suggest that people are intrinsically driven to cognitive attachments with those similar to themselves and thus identification necessarily

³ Brand commitment which is based on high switching costs

encompasses an intersection of personal features with those of others (Aron et al., 1991). Extending the theory to branding and RM, Bhattacharya and Sen (2003) based this relationship on the satisfaction of one or more self-definitional needs: self-continuity, self-distinctiveness and self-enhancement. As consumer-brand identification describes the degree to which customers perceive an overlap between themselves and the brand, satisfaction of self-definitional needs translates into the “incorporation of perceptions into cognitive structures” (Proksch, Orth and Bethge, 2013, p. 46), which in turn places brand attachment as a direct outcome of brand identification.

Since identification with a brand entails the recognition that the customer and the brand share a set of common characteristics, this connection enhances the former’s self-imagery (Zhou et al., 2012) and it is then rational to assume that if the brand enriches and enables the self as the customer, then attachment towards that brand is gradually being developed (Park et al., 2006). As a matter of fact, the more robust the identification between the brand and the customer is, the more chances the latter has for self-expression, development and enhancement and therefore a stronger sense of customer-brand attachment is to be expected (Kleine and Baker, 2004). As Teichmann, Scholl-Grissemann and Stokburger-Sauer (2016) further propose, brands that allow customers to live their experiences to the fullest and to be productive and creative, are those which their customers identify more with and consequently, after some time, become attached to.

There is some evidence in the literature confirming the link between brand identification and attachment (i.e. Bergami and Bagozzi, 2000; Tuskej et al., 2011; Dimitriadis and Papista, 2011). This relationship however, with brand identification measured as an outcome of the association between the self and the brand needs further empirical investigation (Proksch et al., 2013). Based on the above discussion, this thesis hypothesizes that

H6: Brand identification positively affects brand attachment

In section 2.4.6, brand trust was defined as the willingness of the consumers to rely on the brand’s ability to perform and act as promised (Chaudhuri and Holbrook, 2001). Although brand trust is generally divided into three broad categories in RM, namely calculus-based, knowledge-based and identification-based (Sheppard and Tuchinsky, 1996), only the last one is examined in this study. This is both because calculus and knowledge-based trust are straightforward concepts that require limited research (Mazrocchi et al., 2013) and because one of this study’s sub-goals is to confirm marketing relationships based on customer-brand identification. In social psychology, identification-based trust denotes the stronger possible form of trust and refers to cases where both parties in a dyadic relationship are aware of each other’s intentions and expectations (Mazrocchi et al., 2013) without having to take time and spend energy or resources to calculate them. Besides, brand

predictability is a major determinant of brand trust (Srivastava, Dash and Mookerjee, 2016). Identification-based brand trust is also grounded on shared targets, goals and values between the brand and the customer which may lead to the cultivation of mutual trust over time (Dwyer et al., 1987; Morgan and Hunt, 1994). Delgado-Ballester and Munuera-Aleman (2001) further posit that identification, or involvement with the brand, has a direct effect on brand trust. Identification-based trust differs from the traditional marketing conceptualization of it which regards trust as a sole antecedent of positive past experiences (Delgado-Ballester et al., 2003; Ravald and Gronroos, 1996). Instead, Kramer (1996) suggests that it is also based on a strong sense of identification with a specific social identity, which in this case is the brand. This theorization is significant in the field of RM because it implies that brands do not only have to rely on their existing customers to create trusted relationships but that they can also do so by employing marketing strategies to encourage customer-brand identification.

When customers see themselves highly involved or identified with a brand, they do so on the basis of perceived similarities between them and the brand, a perception which leads to higher levels of trust (Azizi and Kapak, 2013). As trusted business partners are hard to find, customers who are identified with certain brands strive to extend their relationships with them in order to extract the most value out of these relationships (Kim, Kim, Kim, Kim and Kang, 2008). An empirical study conducted by Um (2008) revealed that customers who feel a sense of belonging (identification) to specific brands, tend to show much higher levels of trust towards them, as opposed to their competitors. Customers who are long identified with a brand are also exposed to more information concerning it, they socialize with more likeminded people and communicate the brand to others (Herstatt and Sander, 2004). Although WOM, as an intention, is being examined as a consequence of brand commitment in this thesis, WOM recipients are likely to trust brands more (Elliot and Yannopoulou, 2007). This is particularly important here since brand identification is the result of community identification where people have the opportunity to discuss certain brands and exchange opinions, experiences and recommendations. Thus, customers who are identified with both the OBC and the brand not only tend to trust the brand based on their sense of similarity but also because they are constantly exposed to favourable WOM. Furthermore, their trust in other members of this community is subsequently transferred to the brand (Matzler, Pichler, Füller and Mooradian, 2011).

Keh and Xie (2009) attempt to blend brand trust with social identification by implying that customer-brand identification and brand trust are two separate constructs and not conceptually overlapping since customers are inclined to identify with trustworthy brands (and trust those that they are identified with) to enhance their self-esteem and self-definition. When the brand meets, or exceeds,

customers' self-esteem expectations, then this sense of reassurance makes it more trusted (He and Li, 2011). Research has also shown that consumers tend to trust brands that enhance their social image more (Han and Hyun, 2015) and this relationship "may extend to the process of brand identification" (Fung So, King, Sparks and Wang, 2013, p .229). This thesis therefore hypothesizes that

H7: Brand identification has a strong positive effect on brand trust

Based on the operationalization of brand attachment by Thomson et al. (2005), this thesis recognises that attachment towards a brand is a multifaceted phenomenon that includes, inter alia, strong emotions of passion, affection, captivation and connection. Brand attachment, much like interpersonal attachment, is therefore an outcome of strong emotional associations between two entities.

Thomson et al. (2006, p. 77) has described brand attachment as an "emotion-laden mental readiness that influences his or her allocation of emotional, cognitive, and behavioural resources toward a particular target". Bidmon (2017) argues that the term 'readiness' reflects, among other positive brand-related intentions, a consumer's readiness to rely upon that brand. Thomson et al. (2006) have also suggested that brand attachment is a very good predictor of brand trust based on the impression that people are much more willing to trust and rely upon entities towards which they have developed positive cognitive relationships. Furthermore, Dennis, Papagiannidis, Alamanos and Bourlakis (2016) have empirically identified that elements such as openness, sincerity, congeniality and integrity that are strong predictors of attachment, also have a significant positive influence on brand trust. Consistent with the work of Belaid and Behi (2011) who support that consumers evaluate brands to identify those that are able to better meet their needs, Halloran (2014) identified that consumers experience a feeling of security when they consume brands that they are attached to. Diehl (2009) investigated how brand attachment generates relationships that are favourable to the brand and found that it has a significant positive effect on brand trust. More significantly, her empirical findings point out that people who observe value in their relationships to brands are more likely to form attachments with them and later to trust that they will, too, strive to maintain this relationship and sell them the promised (in terms of quality, functionality, durability or price) products or services.

With regards to OBCs, some literature assumes that a strong connection between the consumer and the product or the service might precede a customers' feeling of attachment to brands (Matzler et al., 2011). In simpler terms, people may join OBCs to discuss a product they already like but, through interaction with other like-minded members, become attached to the OBC as well. This happens

because the brand is seen as a vital component of the loved product/service. Therefore, an attachment towards a specific product or service might eventually lead to attachment towards the brand (Matzler et al., 2011) that produces it. Although this proposed relationship based on the above assumption is still relevant in this thesis in testing hypothesis 8, it cannot be used as the basis of the study since its motivation suggests that brand attachment and brand trust are direct outcomes of OBC participation. Very relevant to this, Zillifro and Morais (2004) empirically posit that in the OBC context, people can display positive feelings towards brands even before loving, or even sometimes trying, their products or services because of strong attachment to an OBC. After developing this sense of brand attachment, they are much more likely to rely on the brand and trust that it will satisfy their needs and not undertake any kind of opportunistic behaviour (Kang, Manthiou, Sumarjan and Tang, 2016).

This section would be incomplete without mentioning that the relationship between brand attachment and brand trust could be bidirectional. There is a considerable number of studies that have identified trust as an antecedent of attachment in the context of branding marketing (Louis and Lombart, 2010; Bahri-Ammar, Van Niekerk, Khelil and Chtioui, 2016; Ramaseshan and Stein, 2014). None of them has, however, examined this hypothesized relationship through the lens of an OBC. Contrariwise, brand experience, which is very closely related to, or a determinant of brand trust (Lee, Jeon and Yoon, 2010; Belaid and Behi, 2011), is also a major consequence of membership to an OBC (Wirtz et al., 2013) and along with brand trust, they are both outcomes of OBC-generated brand attachment (Zhou et al., 2012). Kang et al. (2016) suggest that, based on the above fact, attached customers trust the brand in the sense that it will not disappoint them and that the confident personal history they have with the brand acts as a powerful indicator that it will keep its promises. This study suggests that in the context of OBCs

H8: Brand attachment has a strong positive impact on brand trust

3.3.3 Relationships based on commitment-trust theory

The fundamental link between trust and commitment is based on theories of long-term exchange (Perlman and Duck, 1987). The assumption that trust influences commitment in the marketing context was proposed by Morgan and Hunt (1994) and examined in greater detail later by a sizeable number of researchers (Lacoeuilhe and Belaïd, 2007).

Trust plays an important role in the establishment of a long-term relationship and partnership in business as it stimulates a propensity to rely on an exchange partner. Many researchers argue that emotions such as benevolence, integrity and ability reflect one's trustworthiness (Doney and

Cannon, 1997; Smith and Barclay, 1997; Leimeister, Ebner and Krcmar, 2005) and are closely linked to the formation of commitment. Morgan and Hunt (1994) point out that trust is an important factor that determines a marketing relationship and commitment to that relationship. Trust is also essential as a determinative factor in predicting future behaviours of the customer and the brand. Mutual trust is an essential precondition for lasting and committed relationships and for customer-brand transactions. Doney and Cannon (1997, p. 97) further describe trust as a “calculative process” that determines people’s inclination to stay in or leave a relationship. Trust is consequently a “very well-thought and carefully considered process” (Chaudhuri and Holbrook, 2001, p. 42) and “is the customer’s tendency to believe that a brand keeps its promise” (Füller et al., 2008, p. 102).

Commitment binds consumers to brands. In this regard, Kuppelwieser et al. (2011) propose that when an individual trusts his or her business partner, then he or she develops a tie and a sense of commitment to that partner. This argument suggests a positive link between the emotional aspect of commitment and trust and is also supported by several other RM studies (Bansal, Irving and Taylor, 2004; Cater and Zabkar, 2008). Kuppelwieser et al. (2011) further posit that committed relationships are based on trust as they are grounded on past behaviours and allow commitment to be developed in the future. Additionally, in trusted relationships, any short-term advantages are being sacrificed for long-term ones such as the preservation of a valued relationship. Trust is therefore considered to be a major motivating factor to sustain a relationship, turning it into a committed one. Evidence found in the literature does not only support the proposition that trust affects the behavioural dimension of commitment but also its continuity. As the partners in the relationship have minimum doubt concerning the other party’s intentions and actions, they enjoy their collaboration and strive to preserve it. In marketing, commitment, or the preservation of a valued business relationship, is translated into repeated purchases that are not based on cost nuances but on mutual trust between partners (Cater and Zabkar, 2008). This is also supported by Hess and Story (2005), for whom the trust-based commitment relationship framework is essential in understanding consumer behaviour as a motivation, rather than as plain satisfaction. Furthermore, they empirically identify that trust-based committed relationships differentiate brands in the sense that trust significantly affects the attitudinal aspect of commitment.

Customers are rational beings and as such pursue the maximum value in every transaction. Therefore, they try to engage in brand-customer transactions that offer them the most value. In this regard, trust is the most important relational mediator leading to commitment in buyer-seller relationships (Morgan and Hunt, 1994). Moorman et al. (1993) concluded that trust also leads to commitment in contemporary customer-business relations while Shemwell et al. (1994) suggest that

it provides higher value in relationships, which in turn improves the quality of these relationships and turns them into committed ones.

Trust is not only an antecedent of commitment but also its major determinant (Morgan and Hunt, 1994; Chaudhuri and Holbrook, 2001; Gilliland and Bello, 2002). This is because one of commitment's inhibitors is uncertainty (potential vulnerability). Then, when customers trust a specific brand, they overcome the issue of uncertainty by engaging in a relationship with it. Thus, if trust is absent or not well-established, consumers' commitment is necessarily lower. To summarise, consumers' commitment towards a brand can be regarded as a consequence of their trust to it (Gurviez and Korchia, 2002; Chaudhuri and Holbrook, 2001; Goutheron, 2008). Based on the above discussion, brand commitment seems to be influenced significantly by brand trust (Hur et al., 2011).

H9: Brand trust positively affects brand commitment

3.3.4 Behavioural relationships

Evidence on the relationship between brand commitment and oppositional brand loyalty is scarce and, according to the best of the author's knowledge, there are no empirical studies that directly support it. This presents an exciting opportunity to examine whether committed customers also exhibit behaviours that are unfavourable to competing brands. The literature yet offers a plethora of indications that these two marketing constructs might in fact be strongly related. On the other hand, there is a glut of studies that have confirmed a causal effect of OBC commitment on oppositional brand loyalty. This is because many OBC members express their commitment to an OBC and their peers or friends by intentionally ridiculing, challenging or degrading opposing OBCs and their followers (Ewing, Wagstaff and Powell, 2013; Muniz and Hamer, 2001). Although this represents a significantly positive effect for the focal brand, oppositional rivalry based on the urge to protect a social group, conceptually falls short in supporting a strong association between the brand and the customer. Contrary to this, it implies that OBC members could oppose competitive brands irrespective of their feelings towards a certain brand but because of their feelings towards their community, making oppositional brand loyalty a purely situational emotional state. This thesis therefore suggests that oppositional brand loyalty stems from commitment to the brand, instead of commitment to the community supporting it. OBC commitment, which results in brand commitment is an important early stage of opposing competitors since one of the very essences of OBCs is to challenge rival brands and meanings (Cova and Pace, 2006).

When people feel a connection with a brand then, based on the social identification theory, they develop brand-related behaviours that reflect self-related behaviours (Brown, 2000), mirroring their

need to enhance their own self-esteem and identity. These behaviours do not only include the active support of the preferred brand but also the opposition to competing ones, which are regarded as a threat (Marticotte, Manon and Baudri, 2016). Becerra and Badrinarayanan (2013) further suggest that the stronger the bond between the brand and the customer, the more likely the latter will be to negative oppositional referrals and to active opposition of competing brands. Lii and Sy (2009), Romani et al. (2012) and Kuo and Hou (2014) take a slightly different approach and suggest that committed customers might even display 'irrational' behaviour by not adopting products or services from opposing brands even when they are considered better by other people. This very strong brand-enhancing behaviour stems from committed customers' unwillingness to change their consumption patterns. Conversely, a person who holds negative views about a brand will have negative emotions towards it and his or her propensity to adopt it will be very low.

Consciousness of kind, which is regarded as an aspect of brand commitment (Kuo and Feng, 2013) has also been identified as a key determinant of oppositional brand loyalty (Muniz and O'Guinn, 2001). This consciousness of kind which is developed over time and induces customers to actively resist purchasing opposing brands as opposed to merely loyal customers who passively reject them (Decker, 2004), develops a sense of distance from other brands and their users. Based on the above, this thesis proposes that brand commitment is a strong predictor of behaviours that are adversarial to competitive brands and hypothesizes that

H10: Brand commitment has a strong positive influence on oppositional brand loyalty

WOM communication is treated as an intentional outcome of brand commitment in this study. That is, customers who are committed to a brand become stakeholders in its success and spread positive WOM to convince others to buy it and thus assist it in achieving its goals (Harrison-Walker, 2001). WOM indeed plays a significant role in shaping behaviours and attitudes and is thus a desirable outcome of most commitment-building strategies (Tuskej et al., 2013). Committed customers also distinguish between the brand they are committed to and other brands, perceiving the former as the only acceptable choice and then engage in behaviours that are favourable to it when socialising with other people (Tuskej et al., 2013).

The relationship between brand commitment and WOM has been broadly examined through the prism of brand loyalty marketing approaches (Munnukka, Karjaluoto and Tikkanen, 2015). Several researchers (Oliver, 1999; Dick and Basu, 1994; Chaudhuri and Holbrook, 2001; Matos and Rossi, 2008) recognise two facets of brand loyalty: attitudinal and behavioural. The first facet is conceptually overlapping with brand commitment (Dick and Basu, 1994) and usually predicts the second (Oliver, 1999). Positive WOM is widely accepted as a significant component of behavioural

loyalty (Matos and Rossi, 2008), consequently a strong impact of brand commitment on positive WOM intentions is expected.

Fullerton (2005) suggests that customers often become spokespersons for brands. Keller (1993) further posits that when customers are deeply emotionally connected to brands and demonstrate commitment towards them, then they are prompted to spread positive WOM. Research carried out by Matzler et al. (2007) also identified that committed customers are likely to discuss their experiences with brands with their peers. Ellis (2000, p. 722), uses the term 'social compliance commitment' to describe this phenomenon defining it as "a commitment which develops from a need to conform to social influences as a way of obtaining social rewards". In other words, the researcher identifies positive WOM as a result of brand commitment which is based on reassurance, comfort and believing in a brand (Tuskej et al., 2013). Motahari et al. (2014) conducted an empirical research to examine brand commitment's impact on WOM and found that it is a significant predictor of it. In their model, WOM was only explained by the presence of commitment whereas it became insignificant without it. Noel, Merunka and Valette-Florence (2013) also confirm the causal relationship between brand commitment and WOM, suggesting that the effect the former has on the latter is "meaningful", urging further investigation. Shirkhodaie and Rastgoo-deylami's (2016) research has revealed that the relationship between commitment and intentions to recommend the brand is very strong, suggesting that consumers who perceive the brand as an aspect of self, then actively engage in practises that contribute to the marketing of the brand such as spreading favourable WOM about it. Committed customers generally tend to overemphasise the positive attributes of brands in their discussions with others (Casaló et al., 2008), externalising the positive attributes of themselves. Several studies (Brown et al., 2005; Hur et al., 2011; Royo-Vela and Casamassima, 2011) have identified brand commitment, as an outcome of OBC commitment, also having a significant effect on WOM intentions. As a matter of fact, brand commitment which is a direct outcome of involvement in an OBC, is anticipated to have stronger positive WOM effects than commitment which is attributed to the likeability of the product or the service (Hur et al., 2011). This thesis therefore hypothesizes that

H11: Brand Commitment has a positive causal effect on consumers' Word-Of-Mouth intentions

Before elaborating on the literature that suggests a positive relationship between brand commitment and consumers' willingness to pay a price premium, it would be interesting to reinvestigate what brand commitment signifies in RM. Commitment, which is conceptually equivalent to attitudinal brand loyalty (Moorman et al., 1992; Han and Sung, 2008), represents not only a psychological attachment but also involves an element of persistence. This intentional characteristic is mainly responsible for the benefits that commitment brings to brands (Rusbult and

Buunk, 1993). Committed customers also strive to continue (Albert and Merunka, 2013) and even improve the relationship with their favoured brand (Lastovicka and Sirianni, 2011), displaying citizenship behaviour towards it (Burmann, Zeplin and Riley, 2009). This behaviour is defined as the outcome of a relationship which is solidly based on relational emotions such as attachment, trust and identification and may result in the willingness to make sacrifices or engage in behaviours that are based on previous positive experiences and favour the brand (Fullerton, 2005; Yi and Gong, 2008). Such sacrifices can include paying a price premium to a brand (Keller, 1993) or a willingness to increase their expenses to sustain a valued relationship (Chaudhuri and Holbrook, 2001). Intention to pay more for the products or services of a specific brand (i.e. pay a price premium) is recognised as a direct outcome of brand-related intentional behaviours (Sreejesh, Sarkar and Roy, 2016). In other words, customers who are committed might choose to pay more in order to stay in the customer-brand relationship (Chaudhuri and Holbrook, 2001). Having customers who are voluntarily willing to pay more is an invaluable asset for brands and is usually thought of as a part of their equity.

[...] as the set of associations and behaviour on the part of a brand's customers, channel members, and parent corporation that permits the brand to earn greater volume or greater margins than it could without the brand name [...]

The above definition of brand equity (Leuthesser, 1988, p. 77) suggests that certain brands can increase their profitability solely by exploiting their brand name. Indeed, Bello and Holbrook (1995) have in fact defined brand equity as the premium that brands are able to charge for their products and services.

Brand commitment has also been operationalized as a precursor of brand engagement (Bergkvist and Bech-Larsen, 2010). Although engagement is a somewhat vague construct in marketing, it signifies customers' intentions to invest a higher amount of time and monetary resources in their favourite brand (Sreejesh et al., 2016), making brand commitment a forecaster of their willingness to pay a price premium. Furthermore, committed customers care about the welfare of a brand (Bettencourt, 1997), therefore they are prepared to pay more to see it thriving. The strong positive relationship between the two constructs has also been supported by Bloemer and Odekerken-Schröder (2003) whose research revealed that attitudinally loyal, or committed, customers coincide their interests with those of the brand and regard paying more as a means to achieve collective goals. Hess and Story (2005) further suggest that commitment which is based on trust generates and upholds robust brand-customer relationships and connections that go far beyond sales, promotion and competitive pricing, allowing brands to charge premium prices for their products. Several other researchers have theoretically (Persson, 2010) or empirically (Fullerton, 2005; Albert and Merunka, 2013) revealed that brand commitment generates brand advocates who are intrinsically motivated

to pay more for a brand's products or services in their attempt to support or preserve a valued relationship. Based on this discussion, it is proposed that

H12. Brand commitment has a strong positive effect on the consumers' willingness to pay a price premium

3.3.5 Additional hypotheses

In the motivation of this study (section 1.4), it was declared that one of its sub-objectives is to identify whether brand attachment plays a role in customer-brand relationships studied as a consequence of brand identification and OBC commitment. Based on the findings of Zhou et al. (2012), the construct of brand attachment mediates the link between OBC-related marketing outcomes and brand-related marketing precursors. Although the conceptual model suggests that brand identification and OBC commitment positively and directly influence brand commitment, it also proposes that brand attachment acts as a full or partial mediator in these relationships. A possible confirmation of Zhou et al's (2012) discoveries would have a high theoretical significance since the widely-accepted links between community and brand commitment will be challenged. Furthermore, it will imply that these links are not as straightforward as it was previously thought but other, widely overlooked brand-related mental states, precede favourable attitudes towards brands. Brand attachment, conceptualized as a ten-item construct (section 4.4.3) would then prove to be an additional important domain to study the consequences of OBC participation. Managerial implications would include OBC-related strategies and efforts that would push towards enhancing the ten aspects of brand attachment.

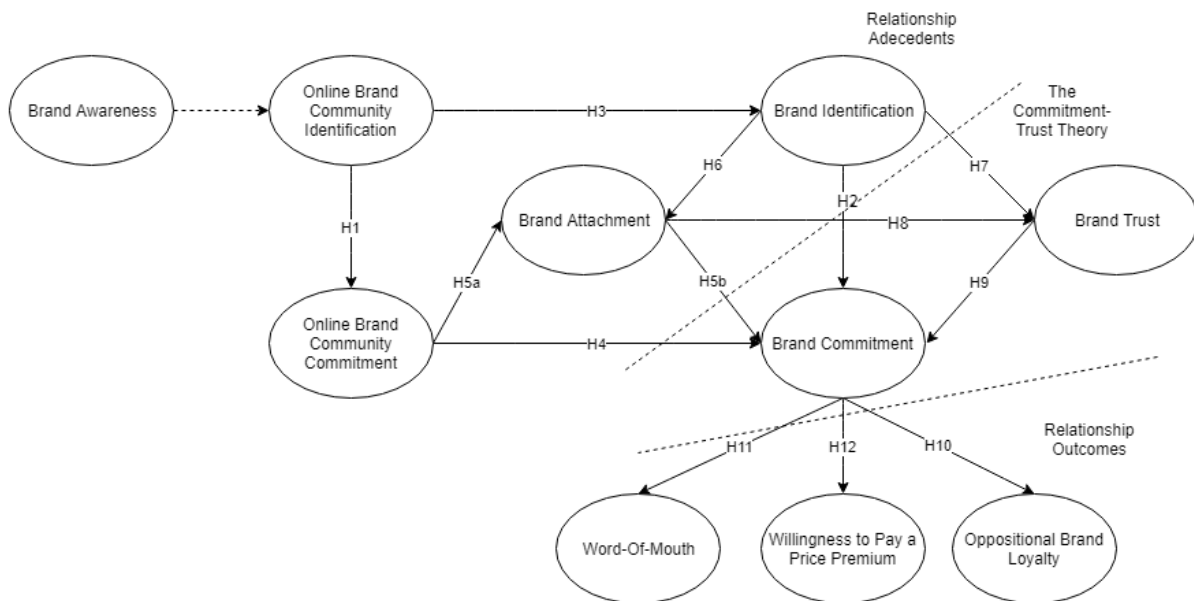
In RM, relationships involve an emotional (a psychological state) and a conative (a behavioural) aspect. These relationships however are not always straightforward but further require a cognitive (state of mind) state to be explained (Zhou et al., 2012). The combination of H6 and H5b implies that although brand identification and brand commitment are subject to a causal relationship, brand attachment potentially mediates this association. Central to this is the notion that attachment makes the object of identification irreplaceable (Thomson et al., 2005), while also enhancing the symbolic utility, personal values and social image of the customer (Park et al., 2007). Furthermore, brand attachment develops over time to identified brand customers and acts as a predictor of brand commitment (Carroll and Ahuvia, 2006), also playing the role of the conation in the relationship between brand identification and brand commitment. It is thus assumed that

H5c: The positive impact of brand identification on brand commitment is mediated by the presence of brand attachment

Likewise, the conceptual model proposes that a combination of H5a and H5b suggests that brand attachment mediates the relationship between OBC commitment and brand commitment. In this case, OBC commitment represents the emotion, brand commitment refers to the cognition and, yet again, brand attachment is the cognition. According to Zhou et al. (2012), OBC members who have over time developed a sense of commitment to the community, are more likely to develop other forms of relationships with the focal brand before committing to it. These include passion, affection, peacefulness and willingness to share information which are all key aspects of brand attachment. It is then proposed that

H6b: The positive impact of OBC commitment on brand commitment is mediated by the presence of brand attachment

Figure 2: Graphical representation of the conceptual model



3.4 Conclusion

The aim of this thesis is to introduce and examine a new conceptual model in the field of OBCs and RM and offer empirical insight into the customer-brand relationship-building process in an OBC, while also explaining how this process adds value to the brand. To do so, nine constructs are put together in a single theoretical model which is comprised of 12 direct and two indirect hypotheses. The main theories that relate to this model are the social identification theory (Tajfel, 1979) and the

commitment-trust theory of RM (Morgan and Hunt, 1994). Motivators of participation (consumer value or benefits) for OBC members are not being scrutinized since this model examines OBC relationships' advantages from the brand's viewpoint. As such, it is primarily concerned with the returns a brand receives from members that are highly identified and committed to their OBCs and co-members.

Consistent with the literature, the construct of brand trust is incorporated in the model to provide a more holistic understanding of the relationships generated within an OBC and to offer a solid foundation to examine whether these relationships do not only have intrinsic, but also monetary value for the brand in terms of equity attributed to its name. Furthermore, based on Zhou et al.'s (2012) recommendations, brand attachment is introduced not only as an outcome of OBC commitment but also as a mediator in the relationships between OBC commitment and brand commitment and brand identification and brand commitment. Brand attachment is therefore given a pivotal role both from an OBC and a brand-relationship perspective.

Testing of this model was conducted using a self-administered questionnaire and the means of data collection, sampling and general methodology is discussed in detail in the following chapter.

4.0 Methodology

“Every discourse, even a poetic or oracular sentence, carries with it a system of rules for producing analogous things and thus an outline of methodology.”

Jacques Derrida

4.1 Introduction

This chapter discusses the orientation of the research. A quantitative approach was selected to investigate a possible positive relationship between the constructs of the conceptual model. More specifically, it analyses the methodology that was used for the research to be conducted, the data collection method, the data collection approach and the techniques employed to complete the research. The hypothetical outlook, the research strategy, the association between theory and research, the philosophical assumption of research as well as data assortment and analysis methods that give validity and legitimize the research are also presented here.

This chapter begins by providing a solid foundation of the research philosophy (section 4.2.1), before moving onto explaining the role of theory in it (section 4.2.2). Section 4.2.3 contains an analysis of the selection of deductive reasoning, while section 4.2.4 an overview of its design. It then explains the reasons for a quantitative methodology being chosen to better fit the aim of the study and why qualitative approaches are not sufficient for measuring RM constructs and for examining the relationships between them (section 4.2.5). After providing justification for the use of a survey (section 4.2.6), it rationalizes the use of a self-administered questionnaire (section 4.2.7), its rating scale (section 4.2.8) and measurement theory (section 4.2.9). Section 4.3 provides a detailed analysis of the choice of the sample. Subsequently, there is explanation presented as to why a certain set of research questions were selected in order to measure each of the conceptual model’s constructs, how these research questions were extracted from the literature, why they were chosen and how and why they follow the logic of the ontological, epistemic, cognitive and theoretical suppositions of the researcher (section 4.4). In section 4.5, an overview of the sample profile is delivered. Section 4.6 provides a comprehensive analysis of the tests which were conducted to assess the adequacy of the measurement instrument. The succeeding sections explain the pre-testing process and the final survey procedures. Additionally, a set of alternative approaches on addressing the research questions and hypothesis is given in detail, as well as justification of why this particular methodology design was selected. A thorough scrutiny of the methods that were used for data analysis is provided in section 4.7, with emphasis given to the selection of structural equations modelling (SEM), the

distinction between different types of SEM and acceptable SEM fit indices. Any ethical considerations are discussed in section 4.8 and conclusions are found in section 4.9.

4.2 Choice of methods

4.2.1 Research philosophy

The notion of research is very wide and has been attempted to be defined and explained in many ways. Here, research is thought of as a procedure through which knowledge is obtained, explanations to specific matters are provided and rationalization of the social world is endeavoured (Matthews and Ross, 2010). Likewise, philosophy is a glimpse of the researcher's reality and perspectives, as well as this reality's connection to the existing knowledge (Saunders, Lewis and Thornhill, 2009). The researcher's viewpoints, ideas and perceptions are linked to the world via theoretical assumptions. Bryman and Bell (2011) suggest that the form, or the approach of reality, the performing procedures of research and the suitable knowledge that already exists or is being generated are disciplines used to explain the concept of research to the researcher.

Research generally consists of three interrelated groups: epistemology, ontology and methodology (Saunders et al., 2012). Epistemology is focused upon exploring the relationship between the researcher and his or her research and defining the acceptable knowledge in his or her field, whereas ontology, which is concerned with the nature of reality, is a slightly more complex facet of research paradigm and is itself divided into two categories. Objectivism, which "is an ontological position that asserts that social phenomena and their meanings have an existence that is independent of social actors" (Bryman, 2012) and subjectivism (or constructionism or interpretivism) which is defined as the "ontological position which asserts that social phenomena and their meanings are continually being accomplished by social actors" (Bryman, 2012). The third grouping of the research paradigm is methodology, which refers to the collection and analysis of the necessary data to carry out the research (Creswell, 2009). Guba and Lincoln (1994) provide a further and analytical examination of these three categories linking them to four philosophical assumptions (positivism, post-positivism, constructivism and critical theory). Despite the very interesting insights extracted from their work, it is focused exclusively on qualitative research and criticises the over-quantification of knowledge. Thus, while a table which summarises their findings is presented below, a more detailed presentation of their propositions will not be provided here. It should be said however that the present thesis falls into the positivism philosophy type which involves a quantitative method of collecting data (Eriksson and Kovalainen, 2008) and understanding reality

not through critically appraising social actors, but concentrating on describing the research phenomenon via a fixed set of questions.

Table 7: Research philosophy

Item	Positivism	Post-positivism	Constructivism	Critical theory
Epistemology	Dualist/objectivist; results true	Revised dualist/objectivist; critical tradition/community; results possibly	Transactional/subjectivist; generated results	Transactional/subjectivist; value-facilitated results
Ontology	Naiverealism – “real” reality but apprehendable	Critical realism – “real reality” but only imperfectly and probabilistically apprehendable	Relativism – local and certain constructed realities	Historical realism – virtual reality formed by gender, economics, social, political, cultural, political values
Methodology	Experimental or manipulative; verification of hypotheses; mainly quantitative	Revised experimental or manipulative; critical multiplism; falsification of hypotheses	Hermeneutical/dialectical	Dialogic/dialectical

Source: Guba and Lincoln (1994)

4.2.2 The role of theory in this research

Wilson (2010) suggests that the foremost difference between scholarly and student research lies in the postulation that the former contributes to business and management knowledge, while the latter uses a theory, or several of them, to apply this knowledge to addressing theoretical or practical problems. This view is also supported by Maylor and Blackmon (2005) who argue that student research, like the present one, is actually an applied confirmation of a theory in a deductive way.

Blaikie (2007) posits that the very foundation of all research is theoretical and philosophical. Research is essentially a “systematic process of collecting and analyzing data with the aim of discovering new knowledge or expanding and verifying existing theories”. It is important however to mention that research is divided in two different categories: theory building and theory testing (De Vaus, 2007). The former suggests that theory is built based on observations by making use of inductive reasoning, while the latter refers to moving from the general to specific by using an existing theory, or a set of theories, as groundwork for direct observations. In essence, theory testing is used to identify whether a current theory holds in a specific environment, or if it needs to be modified, even rejected (De Vaus, 2007).

4.2.3 Deductive and inductive reasoning

The mode, or protocol of each study is intrinsically founded on the questions it wants to deal with. This suggests that different relationships between the existing theory and the new research play a pivotal role in deciding how the research should be carried out. For example, a research whose primary objective is the development of new theory should follow a different protocol than one testing known relationships or issues in question (Bryman and Bell, 2011). The two modes describing this association between theory and research are called inductive and deductive. Hypothetic-deductive, or simply deductive research logic, aims at testing and generalising theory that has previously been generated. It involves a systematic review of the literature which will provide the hypotheses that will be tested through surveys or structured interviews (Baker and Foy, 2008). The deductive research protocol also comprises collection of (a usually large amount) data which will be later analysed to test a theory and therefore accept, reject it, or propose further investigation (Saunders et al., 2012). The present thesis evidently aims to test a set of hypotheses that have been extracted from the RM literature, placing it into the deductive array or researches.

4.2.4 Research design

Apart from the descriptive research design which best describes this specific thesis' methodology approach, there are three further research designs proposed by Hair et al. (2003): the exploratory, the explanatory and the causal research design types. Descriptive or statistical research is conducted with the aim to describe the characteristics of a population or a phenomenon. It answers 'what' questions concerning these characteristics that are usually categorical schemes or descriptive categories (Shields and Rangarjan, 2013). A descriptive research can either be observational or based on a survey. Observational research, as the term suggests, concentrates on observing the behavior of people, other natural beings or phenomena, while surveying them involves the actual act of asking them about themselves (Kowalczyk, 2013) and is apparently solely concentrated on human beings. There is also a third, very rare, category of descriptive research which uses case studies with the purpose of studying an individual or a group of individuals in-depth. Due to the limitations associated with this method however (including poor generalizations and experimenter's biases), it is not widely used (Jackson, 2009). The present study belongs to the survey category. Hair et al. (2003) proposes that this type of research design involves the collection, coding and storing of data and then checking for errors. This indicates a use of a structured questionnaire with a fixed number of choices (Likert-scale questions) where the respondent can choose the ones(s) that are related closer to his or her reality. It is important to mention that descriptive studies' intention is to empirically test relationships beginning with a defined structure and "proceeding to the actual data

collection in order to describe the phenomenon under scrutiny” (Malhotra et al., 1996). Descriptive research is usually confirmatory (Hair et al., 2003) meaning that existing patterns and hypotheses can be retested or used to assess a relationship.

Despite the fact that most of the researches are descriptive (Hair et al., 2003), there are several limitations associated with this research design. First, while this research method is considered to be highly accurate, descriptive research is principally conducted by a researcher to acquire better knowledge on a specific topic. This means that it is difficult to gather the causes behind a situation, or answer any ‘why’ questions. Furthermore, confidentiality is also regarded as a weakness of this method (Johnson, 1953); respondents may either be untruthful in their responses, or give answers that they feel the researcher wants to receive when they know who the researcher is. To overcome this limitation, the present study’s questionnaire was distributed to random OBC members who did not personally know the researcher or his aims. Finally, since descriptive research usually comprises hypotheses extracted from other studies, this encompasses the risk of using predetermined and prescriptive questions from studies that contain errors (Grimes and Schulz, 2002). To eradicate this possibility, the present study has used hypotheses and survey questions which have been extensively used, validated and tested by numerous renowned studies.

Lastly, Hussey and Hussey (1997) suggest that research can also be categorized based on its purpose. The purpose of the present study is to develop a conceptual model which will be tested using a survey and will measure the effects of OBC identification and commitment on fundamental RM constructs such as brand commitment, brand identification, brand trust, WOM, willingness to pay a price premium and oppositional brand loyalty.

4.2.5 Quantitative approach

This section justifies the use of a quantitative approach in testing the thesis’ conceptual model. It also provides reasoning for using a survey with a self-administered questionnaire as a means to collect data from a sample of various OBC members.

Eriksson and Kovalainen (2008), recognizing qualitative and quantitative approaches as the two major ways of conducting research, devised a set of insights to compare these two approaches presented below:

Table 8: Qualitative vs quantitative approach in research

COMPARISON POINT	Quantitative research	Qualitative research
Nature of reality	Objective, independent of social actors	Subjective, socially constructed
Approach	Deductive: testing of theory	Inductive: theory-building
Research design	descriptive	exploratory
Research strategies	Experimental and survey research or structured interviews	Unstructured or semi-structured interviews, case studies, ethnography, grounded theory and narrative research
Types of data	Numeric	Non-numeric
Sample size	Larger sample sizes for greater generalizability of the results	Smaller sample sizes

Source: Eriksson and Kovalainen (2008)

Quantitative, or empirical research, uses a large amount of numerical data that allows for generalizations (Saunders et al., 2012). Quantitative research's primary concern is the collection of data, through surveys or strictly structured interviews, to test the link between two or more variables (Baker and Foy, 2008). Criticism towards this method of research is mainly concentrated towards the fact that the process of collecting data is very impersonal, not taking into account several psychological or contextual factors that may determine the respondents' answers (Silverman, 2006). This thesis attests marketing relationships that have already been theorized or hypothesized therefore it employs a deductive, empirical method to attain its objectives.

Neuman (1997, p.46) defines quantitative research method as:

[...] an organized method for combining deductive logic with precise empirical observations of individual behavior in order to discover and confirm a set of probabilistic causal laws that can be used to predict general pattern of human activity [...]

Because the research method should reflect its aim and the research questions (Punch, 1998), this thesis utilizes a quantitative approach with the purpose of testing the conceptual model's hypotheses presented in section 3.3 and therefore answering the research questions presented in section 1.4.

A quantitative research approach is not the recommended method in creating theory or providing in-depth explanations of exploratory analysis. It can, however, accurately attest the research model's hypotheses as well as deliver results with high reliability and validity (Cavana, Delahaye and Sekaran, 2001; Amaratunga et al., 2002). Moreover, the quantitative approach is the most widely used methodology in similar studies within the RM field (Mukherjee and Nath, 2007; Nambisan and Baron, 2009; Pritchard et al., 1999; Lee et al., 2011; Madupu and Cooley, 2010) and specifically in the OBC context (Casaló et al., 2007, 2008). Amaratunga et al. (2002, p. 1172) further posit that a

researcher can establish statistical evidence “on the strengths of relationships between both exogenous and endogenous constructs” by applying a quantitative approach in his or her research. Furthermore, the statistical results highlight the directions of the relationships when they are combined with the relevant literature and theory. Since this research aims to empirically test the causal relationships between the constructs (Churchill, 1995; Punch, 1998) of the conceptual model presented in Chapter Three and since the “measurement of the constructs or the variables in the theoretical framework is an integral part of research and an important aspect of quantitative research design” (Cavana et al., 2001, p. 65), the quantitative research approach was selected as its methodology of choice.

4.2.6 Survey-based research

As mentioned already, the present study’s theoretical framework was created and tested based on a large sample of various virtual communities’ members. A ‘large sample’ according to Hair et al. (2003) is a sample of more than two hundred respondents and is the main justification for using a survey-based research method. Referring to sampling, the literature recognizes five chief reasons why a survey-based approach is most appropriate in this scenario.

Table 9: Advantages of survey-based research

Researcher/Year	Survey-based method advantage
Hair et al., 2003	Survey-based researches are more focused towards and concerned on causal relationships
Yin, 1994	A survey is the most effective tool in situations where behavioral events are not required or where the research has little or no control over them
Burns, 2000; Zechmeister, Zechmeister and Shaughnessy, 2012	Survey-based research is considered to be dealing less directly with respondents’ feelings, opinions and thoughts than other research designs, focusing exclusively on its aim and objectives
Chisnall, 1992; Creswell, 1994	This kind of research is particularly useful in providing precise means of evaluating the sample’s information, hence simplifying the procedure of drawing conclusions and generalizing the findings from the sample to the population level
McCelland, 1994; Churchill, 1995; Sekaran, 2000; Zikmund, 2003	In terms of practicality, a survey-based research is relatively quick, efficient, inexpensive and allows for administering large samples

Source: The author

Despite the fact that the survey-based research approach is widely used in social research and has certain advantages presented above, it has also received criticism mainly in terms of its dependency on self-reported data (Spector, 1992). According to Campbell (1982, p. 333),

[...] this can be a problem when both the dependent and independent variables are assessed within the same instrument, raising questions about the conclusions drawn from systematic response distortion and the validity and reliability of the measures used in the instrument [...]

A second drawback of this method is that the investigator has no control over timeliness or truthfulness of the responses, while the respondents have limited knowledge of the detail and depth of information (Hair et al., 2003).

While each research method presents some limitations, the survey-based method was selected as the most appropriate for the present thesis and the above weaknesses were addressed by using previously validated and tested scales and by designing an understandable and free from bias questionnaire which provides the respondent with all the necessary information needed to complete it.

4.2.7 Self-administered questionnaire

The process of collecting data for research is usually slow and complex and can be done in a variety of ways such as quick personal interviews, personal in-depth interviews, telephone interviews and self-administered questionnaires. Self-administered questionnaires are those that the respondent can complete on his or her own on paper or via computer online or offline and are therefore heavily based on the clarity of the written word rather than on the skill of the interviewers (Zikmund, 2003). They are also the most common method of data collection in the RM area (Morgan and Hunt, 1994; Wang et al., 2006; Jang et al., 2008; Clarke, 1999; Han, 1991; Bowen and Shoemaker, 1998; Bloemer and de Ruyter, 1999; Pritchard et al., 1999; Hennig-Thurau et al., 2002; Kim and Cha, 2002) due to their effectiveness in gathering empirical data from large samples (McClland, 1994). The present thesis adopts this data collection method, assuming Hair et al.'s (2003, p. 309) definition of self-administered questionnaires as:

[...] a data collection technique in which the respondent reads the survey questions and records his or her own responses without the presence of the interviewer [...]

as well as Sekaran's (2000, p. 2) definition which views the questionnaire as:

[...] a reformulated written set of questions to which respondents record their answers, usually with rather closely defined alternatives [...]

There are numerous advantages associated with this technique, rationalizing its popularity among marketing studies. First, as the interviewer's physical presence is not required, it overcomes spatial boundaries (Zikmund, 2003) and reaches a more geographically spread audience. Second, it can be

completed at the respondents' convenience when they have the time or are in the mood to complete it and third, it can target a large number of respondents simultaneously, significantly saving time and reducing the costs involved in face-to-face interviews. As the respondent and the researcher usually do not know each other and as the researcher's presence is not necessary, individual responses are considered to be more unbiased.

Self-administered questionnaires can take many forms. The rifest ones are personal, where the researcher asks the respondents to deposit completed questionnaires in a designated location, through mail where the researcher mails the questionnaires to respondents and gets them mailed back, through drop-off surveys involving the researcher traveling to the location of the respondents and hand-delivering the questionnaires to them and finally online, where completion can be conducted through emails or direction to a particular website. This thesis utilizes an online self-administered questionnaire where respondents are directed to a website (www.surveymonkey.com) where they are able to complete all components online. More specifically, since the respondents are random participating members of virtual brand communities and hence unknown to the researcher, they are sent a uniform source locator (URL) address which directs them to the website where the survey can be completed.

As discussed, along with the fact that this method was chosen to reach a large population, other self-administered questionnaire methods were rejected since the researcher did not know the real identity of the respondents and thus their addresses, emails or telephone numbers. Some other apparent advantages of online questionnaires include their very low distribution costs, the availability and cost of hardware and software (Fox et al., 2001; Nie et al., 2002), access to unique populations that would be difficult, if not impossible, to reach through other channels (Garton, Haythornthwaite and Wellman, 1997) and saving time (Llieva, Baron and Healey, 2002). Online surveys have also been identified as the most appropriate method of collecting data from OBC members (Horrigan, 2001; Wellman, 1997; Wellman and Haythornthwaite, 2002; Tidwell and Walther, 2002; Wright, 2004).

Apart from the aforementioned advantages of self-administered questionnaires, this data collection method is also associated with a few disadvantages. The most common of them include low response rates, clarity, language, literacy and internet access issues. To reduce these limitations, this thesis used the most popular, easily accessible online survey tool and made sure enough questionnaires were sent to receive the desirable number of responses.

The questionnaire in this thesis is divided into ten parts. The first part requests the demographic characteristics of the respondents, while the remaining nine parts cover the items containing the theoretical model's constructs.

Table 10. Questionnaire analysis

Part 1	The first part of the questionnaire comprises six screening questions about the respondents' gender, age, marital status, education level, length of OBC membership and time of the purchase
Part 2	The second part includes four questions, asking the respondents to evaluate their identification level with the OBC
Part 3	The third part encompasses four questions asking respondents to evaluate their level of commitment to the virtual community they belong to
Part 4	The fourth part is comprised of four questions asking respondents to evaluate their level of commitment to the brand that their OBC supports
Part 5	The fifth part of the survey includes ten questions measuring the attachment that OBC members feel towards the brand their OBC supports
Part 6	The sixth part contains five questions concerning the level of trust that OBC members feel towards the brand that their OBC supports
Part 7	The seventh part of the questionnaire concerns OBC members' commitment to the brand the OBCs supports and contains six items
Part 8	The eighth part consists of four questions measuring OBC members' WOM intentions
Part 9	The ninth part has four questions and it measures OBC members' willingness to pay a price premium to purchase their favorite brand
Part 10	The tenth and final part of the survey is comprised of four questions and measures OBC members' oppositional brand loyalty

While there is some evidence that demographic questions should be put at the end of the questionnaire (Bourque and Fielder, 2003; Malhotra, 1996; Janes, 1999; Robertson and Sundstrom, 1990) because they might contain sensitive or personal questions that the respondents will be embarrassed or unwilling to respond and hence become discouraged to continue, there is no definitive answer as to whether these types of questions should be at the beginning or the end of a

survey (Friel and Wyse, 2012). Recent research (Teclaw, Price and Osatuke, 2012) has revealed however that the response rate of the demographics section of the questionnaire is significantly higher when the demographics are put at the beginning (97% compared to 87% when put at the end), while the response rate for the rest of the questionnaire remains unaffected. What is more, Friel and Wyse (2012) suggest that when the demographic questions do not ask for irrelevant, invasive or very sensitive personal information such as health issues, income and religious background and when the questionnaire guarantees anonymity and is distributed online without the physical presence of the researcher during completion, then it is safe to present them at the beginning. Demographic questions of this thesis' questionnaire were therefore decided to be asked at the beginning.

Consistent with Fowler (1992), Janes (1999) and Frazer and Lawley (2000), the language and the wording used in the questionnaire was kept simple and understandable, while the questions were clear, unbiased and suitable to the context of the virtual community so they could be understood and answered by all respondents, even from those having little formal education. Furthermore, the questions did not include specialized or technical vocabulary that would require any expertise to be answered.

As far as the length of the questionnaire is concerned, the length of this thesis' survey is close to Zikmund's (2003) proposition that it should not significantly exceed six pages. The online questionnaire is nine pages long, close to the recommended length. The questionnaire was kept short to minimize the effort and time required from the respondents to complete it and the questions were carefully organized to reduce eyestrain. Kinnear and Taylor (1996) urge that particular attention should be paid to the sequencing of the questions because if done incorrectly, then the respondents' answers can be influenced and consequently acquire erroneous results. To overcome this risk, the questionnaire was designed cautiously and in a logical manner "with questions focusing on the completed topic before moving to the next" (Tull and Hawkins, 1990, p. 209). The questionnaire was distributed to members of official firm-hosted OBCs and was only available in English.

4.2.8 Rating scale

The choice of Likert-scale points is debatable (Cox, 1986). Most studies use 5-point, 7-point or 10-point scales. While it is highly unclear which of these is the best option, there are several arguments for and against each of them. In any case, a 'good' Likert-scale is one which is balanced on both sides of a neutral option, creating a less biased outcome (Vanek, 2012). Arguments favoring the 5-points

scale include Lehman and Hulbert's (1972, p. 65) view that the more scale points, the greater the "cost of administration, non-responsive bias and respondent fatigue", his observation that 5-point scales are brief so they considerably increase the response rates and Neumann's (1983) argument that a 5-point scale is preferable in attitudinal research because it reduces confusion. On the other hand, low scale granularity has the disadvantages of exhibiting more bias and the chance that the respondents can become frustrated if their opinion is not represented in the available options (Pearse, 2011).

As far as the 10-points Likert-scale is concerned, it has been used by various renowned marketing studies (Algesheimer et al., 2005; Benyoussef et al., 2006) but has also received significant criticism. Such a high granularity scale might provide fewer 'uncertain' or neutral responses. Furthermore, although it has the potential to deliver more precise data with higher validity and reliability, it can also make respondents become impatient, make it more difficult to differentiate categories and to make a choice, categories may become trivial and the cognitive ability of respondents may hinder the proper use of scale (Pearse, 2011).

In this thesis, all constructs have been operationalized using 7-point Likert-scales with anchors ranging from 1 (strongly disagree) to 7 (strongly agree). The general Likert-scale selection was based on the assumption that they are easy and quick to be answered as McClland (1994), Churchill (1995) and Frazer and Lawley (2000) suggest. Besides, it is very expedient in numerically ordering respondents and defining attitudes (Davis and Cosenza, 1993). Despite the fact that it is lacking reproducibility (Oppenheim, 1992), the Likert-scale is the single most popular method of gathering data of quantitative nature (Lee and Soutar, 2010). Particularly for the 7-point scale, it is the Likert-scale which is most widely used in marketing research and was chosen over the 5-point scale as it allows greater discrimination and finer differences between people (De Vaus, 2002). In addition, it is more likely to have inclusive, exhaustive and mutually exclusive categories increasing the score variance and producing more meaningful statistical results (Pearse, 2011).

4.2.9 Measurement theory

The theory of measurement in data analysis is used to explain how and why latent variables are being measured (Hair, Hult, Ringle and Sarstedt, 2014). The literature generally recognises two types of measurement models based on the nature and objective of the research: reflective and formative. Regarding the reflective approach, which represents the vast majority of social researches, the latent variable is the cause for the dependent measures hence variations of the construct cause variations to the measures as well (Bollen, 1989). With reference to the present study, constructs predict

people's behaviour based on a certain emotional state. For example, it is theorized that the level of trust towards a brand will determine the level of brand commitment. In simple terms, the latent variable (trust) predicts the outcome (commitment). Covariances between a reflective model's indicators are therefore zero when the construct is not present because they are both outcomes of the same cause.

Conversely, formative measurement models, or formative indices (Becker, Klein and Wetzels, 2012), are those where indicators cause the latent variable (Edwards and Bagozzi, 2000). Any changes regarding the indicators will necessarily affect the latent variable, while changes in the construct might leave indicators unaffected (Stenner, Burdick and Stone, 2009). To give an example of a formative model method, it could measure how the purchase of a new car affects a person's quality of life. Although a nice new car might mean an improved quality of life for the individual, it does not reflect an increase in his or her wage. In reflective models, the opposite is true (for example, higher wages translate to a better quality of life through, or including, the ability to purchase a new car). Covariances in formative models cannot be predicted as they can be positive, negative or zero since they are not being identified on their own.

The present study falls into the first category (reflective) since manipulation of indicators is not likely to have detrimental effects on the latent variables. For example, changes in the consumers' willingness to pay a price premium are not likely (based on the theorized assumptions of the model) to affect their commitment to a brand. Contrariwise, high or low levels of brand commitment are expected to increase or decrease willingness to pay a price premium accordingly. Reflective models can be compared to our solar system (Borsboom, 2005). Our sun represents the latent variable, while the planets are the indicators. Any changes in the sun's activity are very much likely to have dramatic effects on planets. On the other hand, changes taking place on the planets might have minimal or no effects on the sun. It should be declared however that in RM, constructs can have a bidirectional relationship making the distinction between formative and reflective irrelevant (Grapentine, 2015). Indeed, while Bollen and Lennox (1991) suggest that reflective and formative models are conceptually, psychometrically and substantively different, there is no evidence that these two categories should be treated or measured using different interpretation methods. It is then important that researches categorise their studies, albeit this makes little difference in analysing their outcomes (Grapentine, 2015).

4.3 Sampling

This section provides information about the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population.

4.3.1 Selection of OBCs

The OBCs that were used to identify the survey's respondents come from several different industries in order to expand the generalizability of the results. Those OBCs are Sony Playstation, Canon, British Airways, Aprilia, Nike trainers, Dell laptops, iPhone, Adobe Photoshop, Denby and John Lewis electrics. Their selection is an outcome of a careful and systematic process and all ten of them share similar characteristics. First, they are all corporate OBCs operating in B2C markets, meaning that the brand was their initiator. Although the emergence of the social media has made customer-initiated OBCs more prominent and topical, they often have an unclear structure, leadership and moderation (Fertik and Thompson, 2010), making them much more difficult to study and therefore they were not selected for this study. Second, despite the fact that the products or services these OBCs support might belong to brands headquartered or manufactured outside the UK, all of them are UK-based and are comprised of customers based in the UK. This adds to the homogeneity of the sample, ruling out any cultural, political or religious nuances that could affect the responses. Third, all ten OBCs are open, meaning that members are free to join or leave at any time. Compared to discerning or closed OBCs where moderation is heavy and barriers to enter are very high (Gruner, Homburg and Lukas, 2013), open OBCs allow for entrance even to people who have not yet used the brand. This is reflected in question six of the present thesis' questionnaire which asks the respondents to state whether they have joined the community before or after purchasing the brand. It is expected that open communities will have many more lurkers (inactive or passive members) than closed ones since the ease of joining them might also attract people who are not experienced with the brand (Mousavi, Roper and Keeling, 2017). Furthermore, as many relationships in marketing are bidirectional (Andersen, 2001), members that are unfamiliar with the brand but eventually become committed to it might better explain the process through which bonds between consumers and brands are being created within an OBC. Another common characteristic of the studied OBCs is their size. They are massive online communities comprising more than 10,000 members each. The majority of them are inactive but according to the OBC moderators, more than 20% of the members are, or have been active in the past. Furthermore, all communities are platforms where members are encouraged to share their experiences about the brand openly and truthfully. This freedom of expression and moderation's propensity to not restrict the free flow of information makes them all democratic structures where members can freely express their opinions without the fear of any

consequences. Moderators however do exist but their main role is to keep the conversations concentrated to the brand, prevent antisocial or aggressive behaviour and spamming or advertising. All OBCs concern brands that are fairly expensive and belong to oligopolistic markets. Products or services that are being used on a daily basis were excluded as demand for cheaper goods tends to fall when their prices increase and in the case of inelastic goods or services, consumers usually switch to another brand if the one they habitually use increases its overall prices. Accordingly, many studies suggest that for luxury brands, people are prepared to spend much more to buy status items (Parguel, Delécolle and Valette-Florence, 2016; Godey, Manthiou, Pederzoli, Rokka, Aiello, Donvito and Singh, 2016; Correia Loureiro, Mineiro and Branco de Araújo, 2014; Li, Li and Kambele, 2012). The present thesis suggests that customers who are connected to a brand are reasonably prepared to pay more to acquire it. For very expensive products (such as supercars or luxury watches), the consumer is prepared to pay much more in the first place hence examining this relationship would only prove something which is self-evident. Finally, the functions of all the studied OBCs are similar and no community presents any significant deviations from the norm that would require special treatment or research. For example, several prominent relevant researches focus on single industries or OBCs belonging to industries where certain rules apply. Royo-Vela and Casamassima (2011) have quantitatively confirmed OBC's role in the generation of WOM but their study uses respondents from ZARA only, a firm which follows a very specific business model. The same is true in the seminal work of Zhou et al. (2012) where the authors chose one car OBC in China comprising of 98% men, identifying this as the major drawback of their study. Equally, Kang et al. (2015) identify a causality of OBC participation on some brand equity marketing constructs but, as they admit, generalizations of their outcomes should be done with caution since they have only used respondents from restaurant OBCs on Facebook. This thesis' rationale is to generally explore how intra-group relationships generate intangible economic benefits for the brand in the context of an OBC. Therefore, the OBCs selected did not belong to certain markets or they did not do so based on any demographics or special characteristics. Instead, they all represent flagship corporate OBCs that, apart from all concerning themselves with different products or services, are very much alike. A table containing the profiles of these OBCs is presented below.

Table 11: Profiling of the selected OBCs

Brand	Sony Playstation	Canon	British Airways	Aprilia	Nike trainers	Dell laptops	Iphone	Adobe photoshop	Denby	John Lewis electrics
Size	457822	26701	45274	108008	86432	~90000	387000	27991	11285	128905
Participation	~4%	~11%	~7%	~10%	~7%	N/A*	N/A*	~5%	~9%	N/A*
Year started	2011	2004	1996	1999	2014	2013	2001	2006	2014	2012

* OBC owners did not wish to disclose this information

4.3.2 Brand-initiated OBCs

Most big brands have nowadays created their own OBCs incentivizing academic research in the field (Fournier and Lee, 2009). Most of the firm-hosted OBCs exist in the form of online forums (Gruner et al., 2013), while customer-initiated ones dominate the social media field. Firm-hosted OBCs are the perfect platforms to allow members to participate in brand events, find product or service information and reward customers (Homburg et al., 2015). Although most brands have some employees with the responsibility of interacting with customers, replying to their queries, thanking them for their positive reviews and receiving feedback, it is common practice to maintain a minimal corporate intervention or involvement and provide an autonomy to the community and its members (Dholakia, Blazevic, Wiertz and Algesheimer, 2009). This happens because of people's natural tendency to help each other which, in the context of an OBC, translates to keen responses to queries or information seeking by other OBC members (Nambisan and Baron, 2007). Besides, the very essence of an OBC is to bring likeminded people together and to enhance the brand's value through interactions that are centred around the brand's products or services (Algesheimer and Dholakia, 2006).

A detailed analysis of the differences between firm and customer-hosted OBCs is presented in section 2.3.3, however firm-hosted OBCs can generally be described as those virtual communities that have been initiated by the focal brand and all copyrights, moderation and membership rights belong to it (Gruner et al., 2014). Since everyone can initiate his or her own OBC, brands can virtually have an indefinite number of OBCs. They usually, however only have one official OBC which has been created and is maintained by the brand, making firm-hosted OBCs more suitable for marketing research (Gruner et al., 2014). Furthermore, such communities usually have a clearer structure, significantly more members and more targeted conversations than the user-initiated OBCs, therefore they were selected for this thesis. It should be stated here that firm-hosted OBCs are not free from criticism. For example, Adjei et al. (2008, p. 200) suggest that:

[...] since communication between users on an OBC can only be effective in reducing uncertainty about a specific brand if the information received is considered credible, then the association of the brand with the online forum on corporate-sponsored sites decreases the credibility of the information exchanged [...]

To overcome this issue, the OBCs that have been chosen here are open to constructive criticism, take customers' opinions and recommendations into consideration, take their ideas into account and provide OBC members incentives for C2C interaction.

4.4. Development of scales

This section summarizes and rationalizes the use of measurement scales in this thesis.

4.4.1 OBC identification

Brand identification in this thesis is based on social identification theory which implies that people participate in group activities to differentiate themselves from others (Tajfel, 1979). The items used for OBC identification were therefore selected based on the basis of this definition. To measure the construct of OBC identification, Algesheimer et al. (2005) developed a set of items through a series of in-depth interviews with brand managers and large focus expert groups. The five items they recommended were later tested by 46 marketing graduates in terms of their uniqueness, wording, fit with the construct and completeness. Most of their proposed items look similar to those of Mael and Ashforth's (1992) who conducted empirical research on identification in offline BCs, providing validation for their use in the online context. Based on the definition of OBC identification used in the present study, two of their items were selected to be included in the instrument measuring OBC identification: 'I see myself as a part of the brand community' and 'when I talk about my OBC, I usually say we rather than they'. Both these items loaded significantly high on their intended factors (.82 and .8 respectively) in Mael and Ashforth's study, making them very appropriate as measurement items. The two remaining items were extracted from the paper of Heere et al. (2011). 'When someone criticizes my OBC it feels like a personal insult' and 'When someone praises my OBC, it feels like a personal compliment' were the items selected since the researchers developed them specifically to measure OBC identification in relation to social identification theory. In their research, both loaded highly on their intended factors and have since then been used extensively in relevant studies (Hammedi et al., 2005; Luo, Zhang, Hu and Wang, 2016). All four items were also used in studies that utilized a 7-item Likert-scale with anchors ranging from 'strongly disagree' to 'strongly agree', matching this study's survey method. Pre-tests conducted for these items (see table 14) only provided minor changes, thus no further testing was deemed necessary.

4.4.2 OBC commitment

Consistent with the definition of OBC commitment in this thesis, items that regard it as a positive attitude towards an OBC and measure it accordingly were employed. Three of the four items ('I really care about the fate of my OBC', 'the relationship I have with my OBC is one I intend to maintain indefinitely', 'the relationship I have with my OBC is important to me') were extracted from the study carried out by Matwick, Wiertz and de Ruyter (2008). The researchers empirically measured their scale in a gaming BC (Playstation 3) and calculated significantly high values for item loadings (.888, .902, .932). This thesis' pre-test and item validation, however revealed that wording should slightly change (table 14) to become more understandable in its particular context, without altering the meaning of the questions. As discussed in section 2.4.2, this study adopts Zhang et al.'s

(2013) proposition that OBC commitment is comprised of a normative, an affective and a continuance component. This is reflected in items OBCC1, OBCC4 and OBCC3 accordingly. The final item, 'I feel a sense of belonging in this brand community', which is equivalent to 'I feel a great deal of loyalty to my online brand community' (Zhou et al., 2006), was taken from Kuo and Feng (2014) who, in turn, modified Li et al.'s (2006) original item which referred to offline BCs. This item was singled out due to it intrinsically incorporating an attitudinal component to the notion of commitment and because of this, it has been used in numerous similar studies (Kim et al., 2008; Hur, Ahn and Kim, 2011).

4.4.3 Brand attachment

To measure customer-brand attachment, this thesis adopts the ten-item scale proposed by Thomson et al. (2005) which recognizes three dimensions of attachment: affection, connection and passion. The researchers created an instrument to measure attachment using a three-stage procedure. First, they asked 68 students to complete a survey with several items that were derived from literature and identify which of them better describe their relationship with their favourite brands. This first phase provided 49 items. To further reduce the number to a more manageable one, they deleted 14 items based on the recommendations of two independent judges. 120 other students were then asked to further evaluate the items by choosing the most representative to them. Those items that had both mean ratings below the midpoint scale and limited variance and those that the respondents found poorly worded were deleted, leaving ten of them to finally be subjected to exploratory factor analysis. A relaxed factor loading cut-off value of .5 was employed to assess whether the items loaded on their intended factor. After the confirmation of the items' reliability, Chronbach's alpha (α) provided further evidence for the appropriateness of the scale. This scale was not only selected to be employed in this thesis due to its popularity but also because its breadth might compensate for the lack of a clear understanding of attachment in branding (Park et al., 2010). Furthermore, by using these items and by measuring brand attachment in a multidimensional manner, this instrument will not only allow for a more accurate assessment of attachment to a brand, it will also allow for a more thorough assessment of how the different attachment processes (affection, connection and passion) affect one another. Pre-testing for this study did not recommend any item modifications as the panel of experts declared that they were clear and adequate for use in the context of an OBC.

4.4.4 Brand identification

The construct of brand identification is measured using four items in this thesis. All of them were originally developed by Mael and Ashforth (1992) and were slightly modified by Kim, Han and Park (2001) to fit the design of their study. These items were chosen here because they have been used in the context of RM and linked with other constructs like brand commitment and WOM, which are also present in this study. Kim et al. (2001) originally used six items in their study, two of them however ('the brand's successes are my successes' and 'if a story in the media criticized the brand, I would feel embarrassed') were not selected to be used here because they exhibited low loadings (significantly lower than .7) in the original study. The scholars used a 5-Likert item scale, which was extended to 7-items here. Other than this modification, the panel of experts and practitioners did not recognise any need for further item changes.

An abundance of scales to measure brand identification exists. The theoretical justification for the use of this particular one lies in the review of the relevant literature. As discussed in section 2.4.4, consumer-brand identification is described as the feeling of oneness an OBC member develops with his or her brand (Stockburger-Sauer et al., 2012). Consumers may feel that messages directed towards the brand (such as praise or criticism) are also directed to themselves (Hugues and Ahearne, 2010). Cheng, White and Chaplin (2012) have also argued that the more consumers connect with a brand, the more affected they become when the brand is subjected to attacks or negative criticism. Subsequently, for consumers who identify strongly with a brand, attacks against it can have the same consequences as personal attacks or insults. Conversely, praise for the brand may be perceived as a compliment, reinforcing the perception of the consumers that they made a good decision in supporting the brand. Given that the brand and the consumer constitute related entities, highly connected individuals may have the tendency to defend the brand.

4.4.5 Brand trust

Consistent with the definition of the construct given in Chapter Two where it is described as both a willingness and an intention to rely on an exchange partner's actions, especially in situations that entail risk (Delgado-Ballester, Munuera-Alemán and Yagüe-Guillén, 2003), brand trust here is treated as a bi-dimensional marketing concept. One of its components is reliability, corresponding to consumers' perceptions that their favourite brand will keep its promises. The second facet includes an intentional element, guided from the consumers' belief that the brand cares about their needs and interests (Zarantonello and Pauwels-Delassus, 2015). Based on the above, Zarantonello and Pauwels-Delassus (2015) created an 8-items scale to measure brand trust in terms of reliability and

intentions. Three reliability (BT1, BT2 and BT 4) and two intentional (BT3 and BT5) items were selected for this thesis. The only item which was slightly modified by the panel of experts was BT5 (table 14). The 5-item scale which was used originally, was transformed to a 7-item one for this thesis with anchors ranging from 1 ('strongly disagree') to 7 ('strongly agree').

4.4.6 Brand commitment

As commitment and loyalty in this thesis are considered to be overlapping constructs (section 2.4.7), both an affective and a continuance constituent were considered (Goutheron, 2008). Louis and Lombart (2010) updated Fullerton's (2005) measurement scales of brand commitment by slightly altering their wording. The scale reflects brand commitment's bi-dimensionality by incorporating two unidimensional scales, both comprised of three items. Questions coded BC1 to BC3 refer to the affective component of brand commitment while BC4 to BC6 to the continuance component. The researchers conducted both exploratory and confirmatory factor analyses to find the original factor structures of the selected tools. EFA revealed satisfactory levels of Chronbach's alpha for both components, while CFA employed a systematic 300-iteration bootstrap procedure and also provided acceptable factor loadings (>.7). The only exception was the third item of the continuance commitment component ('it would be too costly for me to change brands') which loaded slightly below the .7 threshold. As, however, its value was only marginally below that strict cut-off value, it was included in this study's final questionnaire. The only item which was subject to minor wording changes in this thesis was BC5 ('my life would be disturbed if I had to change brands'). The panel found the wording too strong and proposed that it should be changed to 'my consuming habits would be greatly disturbed if I had to change brands'. Although, unlike all other item modifications, this particular one seemed to significantly change the meaning of the original question, a personal interview with OBC moderators and members indicated that the new wording was appropriate.

4.4.7 WOM

To measure the construct of Word-Of-Mouth, this study uses Shirkhodaie and Rastgoo-Deylami's (2016) scale. Although the researchers did not produce any new items, they collected the most relevant ones from previous studies (Tuskej, Golob and Podnar, 2013; Kunzel and Halliday, 2008; Sichtmann, 2007) and applied them to a pure RM context. Their EFA provided satisfactory cut-off values. A plethora of WOM-measuring instruments exists. Although, this particular one was used as it is consistent with the definition of WOM in this thesis (section 2.4.8) defined as an informal means of communication between customers and their friends, peers and family concerning the evaluation

of goods and services (Anderson, 1998). This sense of informality is reflected in all the instrument's items. As the context that these items were previously used and since their wording perfectly matches the nature and objectives of this study, no modifications were recognised as necessary in the phase of pre-test.

4.4.8 Oppositional brand loyalty

Oppositional brand loyalty within an OBC is expressed in various ways. From overemphasizing the disadvantages of opposing brands to ridiculing their users, they are all ways that committed OBC members defend their brand choice (Kuo and Feng, 2013). Muniz and Hamer (2001) and Thompson and Sinha (2008) even propose that customers who are loyal to a brand might delay or avoid adopting products or services from competitors even when these are widely discussed or recommended by other people. Kuo and Feng modified item scales from various previous studies a tad and used EFA to operationalize them and create a reliable measurement for the construct of OBL. EFA returned acceptable outcomes and all items loaded significantly on their factors. The above study however was carried out using a sample from the automotive industry and one item (OBL1) mirrored that. The item's original wording ('I will not consider buying products of opposing brands even if the products can better meet consumers' specific needs - e.g., lower fuel consumption') was changed ('I will not consider buying products of opposing brands even if the products can better meet other people's specific needs') after the recommendations of the OBC and marketing panels and interviews. These panels also suggested a slight modification of the remaining four items in order to better highlight the importance of 'other' people. The panels found the questions were too generic and maybe misleading, since respondents might be led to not reflect their own realities in their answers but respond based on those of their friends, peers and families. The items were therefore reworded to incentivize them to respond based on their own perceptions (table 14).

4.4.9 Willingness to pay a price premium

Willingness to pay a price premium is a rather controversial construct in RM because it is very hard to be quantified (Zeithaml, Berry and Parasuraman, 1996). Therefore, the instrument which will be used must be very carefully selected, altered and adapted to the particularities of each study. From a bank of 18 possible items that were collected and deemed potentially appropriate for this thesis, a total of five were finally selected based on their diction and appropriateness. Many items have been used to measure the construct in previous researches but they are either very focused on their specific context or their phraseology is difficult to be altered. Furthermore, willingness to pay a price

premium has long been linked to quality (Anselmsson, Bondesson and Johansson, 2014), meaning that people are prepared to pay more for high quality products. This thesis, on the other hand, aims to examine whether people are willing to pay more for their favourite brand not only based on its perceived quality but also on the positive emotions that they have developed for it. Thus, five items were selected from two studies (Netemeyer et al., 2004; Dean, Morgan and Tan, 2002) based on their ability to be generalised (table 14). The first, mixed-methods study, (WTP1 and WTP2) developed these two items through a systematic combination of qualitative and quantitative means while the second one refined Parasuraman et al.'s (1994) measures and customised them to fit its purpose. In the pre-testing phase here, only WTP1 was slightly reworded to become more understandable without changing its meaning.

Table 12: Constructs and measurement items

Construct	Number of measurement items	Source
Online brand community identification	4	Algesheimer et al., 2005; Heere et al. (2011)
Online brand community commitment	4	Mathwick et al. (2008); Kuo and Feng (2014)
Brand attachment:		Thomson et al. (2005)
- <i>Affection</i>	4	
- <i>Connection</i>	3	
- <i>Passion</i>	3	
Brand identification	4	Mael and Ashforth (1992); Kim, Han and Park (2001)
Brand trust		Zarantonello and Pauwels-Delassus (2015)
- <i>Reliability</i>	3	
- <i>Intentions</i>	2	
Brand commitment		Louis and Lombart (2010)
- <i>Affective</i>	3	
- <i>Continuance</i>	3	
Oppositional brand loyalty	4	Kuo and Feng (2013)
Willingness to pay a price premium	5	Netemeyer et al. (2004); Dean, Morgan and Tan (2002)
Word-Of-Mouth	5	Shirkhodaie, Rastgoo and deylami (2016)

4.5 Tests

4.5.1 Pre-test

To ensure the sufficiency and the quality of the data that is necessary for the satisfaction of the research's needs (Hunt, 1982), it is essential that a pre-test should be done prior to the actual initiation of the data collection process (Reynolds and Diamantopoulos, 1998). A plethora of scholars (Blair and Presser, 1992; Churchill, 1995; Zigmund, 2003) has pointed out that pre-tests should be used to eliminate any chances that deficiencies or shortcomings of the data collection method will have catastrophic consequences on the actual research. Zigmund (2003, p. 127) defines the pre-test as "a trial run with a group of respondents used to screen out problems in the instructions or design of a questionnaire".

Despite a general agreement about the pre-tests' necessity, there is an ongoing debate about their method, mode and thoroughness (Churchill, 1995; Reynolds and Diamantopoulos, 1998). A review of the relevant literature generally distinguishes three major pre-testing methods: expert panels, planned field surveys and short personal interviews. The expert panel, usually comprised of experts in a specific field such as academics or well-established practitioners, is used to provide expert opinion on whether the measuring instrument is associated with any significant shortcomings. Planned field surveys usually comprise samples much smaller than the target ones and a few selected or random respondents are required to complete them before the actual survey is widely distributed. Finally, personal interviews are conducted to identify any wording mistakes or any items that are unclear or do not make sense to the respondent. All three methods however have received criticism based on their suitability. For example, people who do not belong to the target sample might be selected to complete planned field surveys, providing erroneous insights. Accordingly, interviews might be biased because of the personal interaction between the researcher and the respondent and expert panels might include inappropriate people who have limited knowledge of a particular field (Reynolds and Diamantopoulos, 1998). To overcome these limitations, the present thesis utilizes a combination of the aforementioned pre-testing methods to minimise the possibility of a critical error.

4.5.1.1 Pre-test sampling frame

Before conducting a pre-test, the researcher must determine who should complete his or her survey and how many respondents are enough to provide a satisfactory depiction of the big picture (Hunt, 1982). Usually, random respondents from a population of interest (Reynolds and Diamantopoulos,

1998) are being chosen solely on their characteristics. Their characteristics should necessarily resemble those of the actual population of interest (Tull and Hawkins, 1990), active OBC members in this study. Furthermore, their number should be large enough to provide insightful outcomes. Unfortunately, there is no general agreement on how many these respondents should be (Hunt, 1982). Some researchers suggest that a sample size of twenty respondents is adequate (Boyed, Westfall and Stasch, 1977), others increase this number to fifty (Lukas, Hair and Ortinau, 2004), while others are vaguer, not recommending a specific sample size (Zatalman and Burger, 1975). In line with the most contemporary study, 400 questionnaires were distributed to active OBC members, aiming for fifty valid responses. As active OBC participants make up this thesis' population of interest, these questionnaires were sent to members (of the studied communities) who showed any type of participation during a period of twenty days.

4.5.1.2 Pre-test procedures

As discussed above, a combination of the three available methods is generally recommended to avoid any errors or limitations of each method (Blair and Presser, 1992; Malhotra, 1993; Churchill, 1995). Therefore, pre-test started with the distribution of the questionnaire to four experts. Two in the field of RM, one in operations management and a professor in branding. All experts are lecturers or professors at a university in London. They were asked to evaluate the research questions based on their relevance to the studied subject, assess the fitness of the terminology and items to an OBC context and provide any constructive feedback, criticism or guidelines for the improvement of the survey. In total, three items were removed from the survey and nine slightly changed after this first round.

The second round involved five personal interviews based on the recommendation of Bowen and Shoemaker (1998). From the studied OBCs, three members and two moderators agreed to meet with the researcher to discuss the applicability of the measuring instrument in the OBC context. All five were native English speakers. The interviewees suggested changing the wording of some items that are related to oppositional brand loyalty without changing their meaning, as well as reducing the total number of items per page to make the completion of the questionnaire easier for the respondents. Furthermore, they proposed an alteration of the sequencing of a few items, especially at the beginning of the survey (items related to OBC commitment and OBC identification) and the questionnaire was modified accordingly.

For the third and final stage of the pre-test, the moderators of all ten OBCs of interest were contacted to allow the distribution of the questionnaire. Having given the permission only for a main

study to be conducted, only four gave further permission for this preliminary test. After a short period of monitoring the OBCs, a total of 400 questionnaires were finally sent to those members who have participated in the communities' activities. 54 valid responses were returned, a response rate of 13.5% which is particularly high for OBCs (Wilson and Laskey, 2003). Chronbach's alpha (α) was calculated to assess the constructs' reliability and was found to be .87, higher than the recommended threshold of .7 (Nunnally and Bernstein, 1994). Further statistical analysis was not conducted due to the very small sample size.

Table 13 summarizes the three steps that were taken to improve the questionnaire and make it more applicable to the context of this study. Although some minor changes were proposed and are presented in table 14, the instrument was largely deemed to be adequate for the purpose of the study.

Table 13: Pre-test stages

Stages	Participants	Justification
Panel of experts	Four university professors (three in the field of marketing and one in operations management)	Validation of the questionnaire, assessment of the relevance of the items, assessment of the items' suitability in the OBC context, provision of feedback and suggestions
Personal interviews	Five interviews (three OBC members and two moderators)	Reception of comments concerning the wording and sequencing of the survey
Planned survey	400 questionnaires were distributed to OBC members, returning 54 valid responses	Assessing the reliability of the constructs

Table 14: Scale items alterations after pre-test

Original item	Code	Modified item
I see myself as a part of the OBC	OBCI1	I consider myself a part of this OBC

When someone praises my OBC, it feels like a personal compliment	OBC12	I could take praise to my OBC as a personal compliment
When I talk about my OBC, I usually say "we" rather than "they"	OBC13	✓
When someone criticizes my OBC it feels like a personal insult	OBC14	I could take negative criticism towards my OBC as a personal insult
I really care about the fate of my OBC	OBCC1	✓
I feel a great deal of belonging to my OBC	OBCC2	I feel a great deal of belonging to my OBC and its members
The relationship I have with my OBC is one I intend to maintain indefinitely	OBCC3	The relationship I have with my OBC and its members is one I intend to maintain indefinitely
The relationship I have with my OBC is important to me	OBCC4	The relationship I have with my OBC and its members is important to me
This brand is affectionate	BA1	✓
This brand is loved	BA2	✓
This brand is peaceful	BA3	✓
This brand is friendly	BA4	✓
I am attached to this brand	BA5	✓
I am bonded to this brand	BA6	✓
I am connected with this brand	BA7	✓
This brand makes me passionate	BA8	✓
This brand makes me delighted	BA9	✓
This brand makes me captivated	BA10	✓
I am interested in what others think about my brand	BI1	✓
When I talk about my brand I usually say "we" rather than "they"	BI2	✓
When someone praises my brand, it feels like a personal compliment	BI3	✓
When someone criticizes my brand, it feels like a personal insult	BI4	✓
I trust this brand	BT1	✓

I could rely on my brand to solve a problem	BT2	✓
My brand would be honest and sincere in addressing my concerns	BT3	✓
I feel confident in this brand	BT4	✓
This brand guarantees satisfaction	BT5	Consuming this brand guarantees satisfaction
I am strongly related to this brand	BC1	✓
I like this brand	BC2	✓
This brand has a lot of meaning to me	BC3	✓
It would be very hard for me to switch away from this brand now even if I wanted to	BC4	✓
My life would be disturbed if I had to change brands	BC5	My consuming habits would be greatly disturbed if I had to change brands
It would be too costly for me to change brands	BC6	✓
I will not consider buying products of opposing brands even if the products can better meet consumers' specific needs (e.g., lower fuel consumption)	OBL1	I will not consider buying products of opposing brands even if the products can better meet other people's specific needs
I will express opposing views or opinions to products of opposing brands even if the products are considered better by other people	OBL2	I will express opposing views or opinions to products of opposing brands even if the products are considered better by some other people
I have low intention to try products of opposing brands even if the products are widely discussed by other people	OBL3	✓
I will not recommend people buying products of opposing brands even if an opposing brand has new and better products	OBL4	I will not recommend people buying products of opposing brands even if an opposing brand introduces new products
I am willing to pay a lot more to buy this brand than buying another brand	WTP1	If this brand slightly increased its price overall, I would continue buying from it
I am willing to pay a higher price for this brand than for other brands	WTP2	✓

If this brand increased its price overall, I would continue to buy from it	WTP3	✓
If this brand increased its price overall, I would still not buy from a competitor that offers more attractive prices	WTP4	✓
If this brand maintained most current prices but charged extra for its services, I would still use it	WTP5	✓
I give advice about this brand to people	WOM1	✓
I share my personal experiences about this brand with others	WOM2	✓
I talk positively about this brand to my friends	WOM3	✓
I will speak positively about the advantages of this brand	WOM4	✓
I will actually recommend this brand to my friends	WOM5	✓

4.5.2 Final survey

The final survey was designed with the aim of collecting the data that would help this study fulfill its purpose which is elaborated in Chapter One. Mindful that the survey response rate in OBCs is quite low (Petrovčič, Petriča and Lozar Manfreda, 2015), it was kept as brief as possible; the questions were clear and its format (matrix - rating scale) allowed for a horizontal presentation of the possible responses, making the questionnaire significantly smaller in size. The focus on active OBC participants seemed obvious as currently the majority of big brands own an OBC as explained in Chapter Two and this trend shows no signs of altering due to the evolution of social media and the bridging of the digital divide (UNPAN, 2014). The increase in the interest in OBCs is not only corporate however but is also reflected in the literature via a growing body of studies which examine customer-brand relationships through this prism. This thesis aims to add its footprint to the RM field by giving theoretical insights on the procedure through which relationships between customers and brands and between customers themselves are being generated through an OBC. It also sets out to provide practical recommendations on how and why these relationships can generate higher profits for the brand.

As explained previously, massive firm-hosted OBCs belonging to brands represented in oligopolistic markets were chosen for this study and active participants of these communities signified the final sample. The reasons for this choice are discussed in detail in section 4.3.1 and in agreement with the recommendations by Kent (2001), active OBC participants represent the target population of this thesis and can be readily accessed. All OBCs are strictly located and operated in the UK. Although a formal mechanism to locate members does not exist, the moderators support that over 95% of the IPs are from within the UK. The UK was chosen for a variety of reasons: first, the researcher is based in the UK and the research is carried out on behalf of Brunel University, London. Second, the UK is considered as representative for the rest of the Western world. Third, the UK adheres to the rules and regulations of international law, including cybercrime. Fourth, it has a sufficient number of OBCs and members to provide an adequate sample size and fifth, research costs would be minimized.

There is an unknown number of firm-hosted OBCs in the UK making it very difficult to identify the exact number of OBCs that satisfy this study's criteria. Thus, ten of them were selected in terms of size to participate in this research. Fortunately, it was possible to determine the participants *a posteriori*⁴, by observing the selected OBCs for a period. Members who participated in conversations and who started new threads or responded to other people's queries were qualified to be sent the questionnaire. Although the researcher, in consultation with the OBCs' moderators, had access to the names of all members, no non-participating member (lurker) was contacted to take part in the survey. The sample can then be characterized as 'purposive', defined by Malhotra, Agarwal and Peterson (1996, p. 877) as "a form of convenience sampling in which the population elements are purposely selected based on the judgment of the researcher". Since the sample size is selected to be representative of the population of interest, a purposive sample meets the needs of the present study (Dillon, Madden and Firtle, 1993) and is based on elements that can be used to answer specific research questions (Kinnear and Taylor, 1996).

4.5.3 Final survey procedures

Twenty-one massive OBCs were formally contacted to ask for permission and cooperation or assistance with the process of collecting data. Of those, nine did not respond to the messages and two refused to participate without a fee. The ten that would finally provide the pool of respondents were sent a brief file which included the purpose of the study, the survey and the potential managerial contributions. It was also made clear that confidentiality and integrity would be ensured as this was a priority for most. The agreement did not only involve permission to send private

⁴ based on reasoning from known facts or past events rather than by making assumptions or predictions

messages to participating members asking them to complete the questionnaire, but also a more active role from the moderators who would post a link to the survey beneath some of the lengthier threads. OBC moderators were mostly brand employees or advocates and consequently very keen to assist with the distribution of the questionnaires. This proved to be beneficial to the research since members treated this as an exercise or an OBC activity instead of an ‘intrusion’ from a third party, outside the community.

Microsoft Excel was employed for the thorough procedure of monitoring posts, posting frequencies and unique participants for each observed month (table 15). All members have a personal space on the community either called ‘my personal messages’ or ‘inbox’ where the questionnaires were sent. By doing so, instead of personal conversations, it was ensured that respondents would complete the survey at their convenience. All questionnaires were in English and there was no possibility for translation. This method provided a reasonable rate of responses but only averaging two or three valid responses per day, hence additional procedures were applied. As recommended by Harvey (1987), Brennan, Seymour and Gendall (1993) and Frazer and Lawley (2000), small reminders were included in the questionnaires to increase the number of responses. Unfortunately, this method did not significantly increase the response rate and therefore completion of data collection took a month more than initially anticipated.

A total of 4762 questionnaires were distributed to the ten OBCs with the aim of receiving at least 300 valid responses, thus representing a statistical sample higher than the 200 (Reinartz, Haenlein and Henseler, 2009) which is essential for structural equations modelling to be performed. Questionnaires were not distributed equally to all OBCs but according to members’ activity. A detailed analysis is provided in table 16. Of the 4762, 1044 were returned and 306 met the criteria to be used in the analysis.

Table 15: OBC activity measured in posts

Month/OBC	Sony PlayStation	Canon	British Airways	Aprilia	Nike trainers	Dell laptops	iPhone	Adobe Photoshop	Denby	John Lewis electrics
1	177	25	8	339	121	20	678	33	23	108
2	221	12	101	304	69	59	369	65	50	289
3	52	122	34	287	239	70	288	98	61	144
4	212	207	66	455	254	127	127	106	28	58
5	84	55	50	175	16	13	585	97	85	196
Total	746	421	259	1560	699	289	2047	399	247	795

The values indicate the unique posters in each OBC for every month of the observation

Table 16: Number of questionnaires sent to each OBC

OBC	Sony PlayStation	Canon	British Airways	Aprilia	Nike trainers	Dell laptops	iPhone	Adobe Photoshop	Denby	John Lewis electrics
Questionnaires sent Total	746	421	259	1560	699	289	2047	399	247	795 4762

Table 17: Returned Questionnaires

OBC	Sony PlayStation	Canon	British Airways	Aprilia	Nike trainers	Dell laptops	iPhone	Adobe Photoshop	Denby	John Lewis electrics	Total
Questionnaires sent	746	421	259	1560	699	289	2047	399	247	795	4762
Questionnaires received	115	101	26	216	84	29	324	44	44	61	1044
Questionnaires used	38	14	5	56	21	14	86	21	32	19	306

4.5.4 Use of sampling in the final survey

This thesis uses a sample of 306 respondents in order to collect the necessary data to test its hypotheses. After defining the research problem and analysing current knowledge in an area of study by completing a thorough literature review, collection of new data via a survey is usually essential to enhance knowledge on a subject. It is not always possible however to question every single individual in a certain population. Time, financial and accessibility constraints suggest that sampling, by means of selective questioning, is required (Hair et al., 2003). Sampling is generally considered to be a reliable method of collecting representative data from a population. The consistency of sampling has been extensively tested and is proven to be similar to surveying the entire population (Saunders et al., 2012). To summarise, a good and representative sample allows for generalisations (Saunders et al., 2012). Interestingly, Henry (1990) moves a step further positing that sampling might even provide higher overall accuracy than a census since the chance for non-sampling error in the latter can be higher.

It is essential to clarify what a 'good and representative' sample actually means. Based on the literature, the required size of the sample depends on the absence of bias, or the existence thereof (Blair and Zinkhan, 2006). Blair and Zinkhan identify three clusters of such bias: coverage bias, selection bias and non-response bias. The often-inescapable coverage bias occurs when certain segments of the population are excluded (Fuchs and Busse, 2009). This can occur due to, among others, spatial limitations, lack of telephones and cultural or religious causes. Selection bias in sociological (and sometimes other) data arise when the sample is not randomly selected (Heckman,

1977) and therefore the final data could have been different had certain groups have higher (or lower) chances of being selected to participate (Heckman et al., 1998). Finally, non-response bias, which could present a limitation for a study using an online survey like the present one, refers to the situation where the researcher faces a very low response rate. Despite the ever-growing popularity of online surveys (Evans and Mathur, 2005), they are commonly associated with low response rates (Fricker and Schonlau, 2002; Ilieva et al., 2002; Sheehan and McMillan, 1999; Wilson and Laskey, 2003) raising a significant research problem. Even though there is evidence that high response rates do not necessarily guarantee a good sample (Blair and Zinkhan, 2006), this research took this risk very seriously from the beginning and tried to avoid extremely low response rates that could jeopardise the reliability of the data (Nulty, 2008). The questionnaire was kept simple and brief (Patton, 2000) without excessive demographic or reverse logic questions. Each page of the questionnaire contained a maximum of ten questions in order to prevent the respondent from becoming tired or bored while completing it. Following the literature's recommendations (Zúñiga, 2004), the survey was 'pushed' to OBC members by frequent reminders on the main page. Individual reminders were not sent until a later stage as mentioned above to avoid irritating the survey population (Kittleson, 1995; Cook et al., 2000) and because people responding later are, by and large, regarded as non-respondents (Armstrong and Overton, 1977). Research also identifies other methods to enhance response rates, they were not applicable to this study however. These include persuading respondents that their responses will be practically used (Nulty, 1992) or offering them rewards (Zúñiga, 2004).

4.5.5 Sample profile

The survey which was used to collect the data was distributed to active members of ten large OBCs. It was decided that the respondents should not belong to OBCs from organisations in the same industry because that could potentially narrow the scope of the study and limit its generalizability. All of the examined OBCs however were in oligopolistic industries where brand commitment plays a very important role (Chatterjee and Wernerfelt, 1991). In monopolistic markets, consumers do not have a wide variety of choice, while in more competitive settings and in industries regarding less sophisticated products or services, people tend to buy the cheapest alternative in the market (Chioveanu, 2007). The selected OBCs were Sony Playstation, Canon, British Airways, Aprilia, Nike trainers, Dell laptops, iPhone, Adobe Photoshop, Denby and John Lewis electrics.

This research uses probability sampling and its survey (Appendix B) was employed for a period of 5 months (February 2017 - June 2017). All members who had shown activity in their OBCs, either by

posting a question or interacting with other members, were sent the questionnaire. The advantages of probability sampling include avoiding the researcher's subjective judgement, preventing misrepresentation of the population and the method is considered to be accurate and rigorous (Schreuder, Gregoire and Weyer, 2001). A total of 4762 questionnaires were sent (via a www.surveymonkey.co.uk link) and 1044 were returned. A first round of programmed data cleaning revealed that 738 responses were not usable since respondents had left significantly more than four questions unanswered. A total of 306 were finally uploaded to IBM SPSS (version 20) to be interpreted. 300 or more responses are generally considered a very large sample size but a sufficient one for structural equations modelling (Hair et al., 2010; Tabachnick and Fidell, 2006).

A simple demographic analysis of the respondents' profiles (as presented in table 18) reveals a noteworthy gender bias. 123 (40.19%) respondents were male, while the remaining 183 (59.8%) were female. 51.3% of them were married or in a serious relationship and the rest were single. Age distribution is an important aspect of marketing research (Verhoef, Hans Franses and Hoekstra, 2002) and is divided into six groups in this study: respondents younger than 20 years old represent 3.27% of the sample, young people aged 21-30 account for 27.8%, ages 31-40 represent 34.5% of the total respondents, 14.7% of the sample consists of people aged 41-50 and finally people 51 to 60 and older than 60 years old represent 19.3% of the total respondents (8.8% and 10.5% respectively). Age distribution is thus heavily skewed towards those below the age of 40, a result that does not come as a surprise since 74% of Internet users are aged between 15 years and 44 years (Statista, 2014). 62% of OBC members joined their communities after purchasing the product or the service, thus indicating that joining an OBC is primarily a post-purchase activity. Unexpectedly however, a notable percentage of the respondents (37.9%) stated that they joined the OBC before actually purchasing the product or the service. This is antithetical to what one might think about customer behaviour; a person who has already bought a product or used a service will join a community concerning that product or service. This exciting finding may be interpreted diversely. It could mean that since joining an OBC requires just a click, people do so when they are curious to learn about that community or the product or service it promotes. Joining an OBC could also be a result of a referral or recommendation. In any case, this is welcome news for OBC owners and marketers since utilizing an OBC does not only help them build relationships with their existing customers but also with potential new ones. Furthermore, this finding justifies the use of this conceptual model in the sense that OBCs have the potential to create new customers and not just enhance customer-brand relationships. As far as the participants' educational level is concerned, the vast majority of them have qualifications past secondary education. 16% hold a diploma, 41.2% have a bachelor degree, while 18% hold a postgraduate title. 21.6% have only finished high school and the remaining 3.27%

stated that they are educated to the primary school level or have no schooling at all. Finally, screening questions included one regarding members' period of membership in the OBC. The sample was then categorised into five clusters: less than a month (19.6%), 1-3 months (19.6%), 4-6 months (13.7%), 6-12 months (17.3%) and more than a year (29.7%).

Table 18: Respondents' profiling

Profile	Sample size (N=306)	Percentage (%)
Gender		
- Male	123	40.2
- Female	183	59.8
Marital status		
- Married/in a serious relationship	157	51.3
- Single	149	48.7
Age		
- 20 or younger	10	3.27
- 21-30	85	27.8
- 31-40	107	34.5
- 41-50	45	14.7
- 51-60	27	8.8
- 61 or older	32	10.5
Level of education		
- Primary school or below	10	3.27
- High school	66	21.6
- Diploma	49	16
- University degree	126	41.2
- Postgraduate degree	55	18
OBC membership		
- Less than a month	60	19.6
- 1-3 months	60	19.6
- 4-6 months	42	13.7
- 7-12 months	53	17.3
- More than a year	91	29.7
Timing of brand purchase		
- Before becoming a member	116	37.9
- After becoming a member	190	62.1

It should be stated that demographics are not used as control variables in this thesis. Their role in social science is generally limited to being used as mediators or moderators in the hypothesized relationships of a structural model or where there is strong rationale from the literature to do so (Awang et al., 2017). Furthermore, demographics in social research are only rarely distorting results or reality. Instead, they can limit generalizations of the research's outcomes (Spector and Brannick, 2010). Breaugh (2008) has also suggested that controlling demographics (in social science) could lead to misinterpretation of results. He suggests that it is highly unlikely that variables such as age or sex play a crucial role in marketing decisions, unless they refer to age-specific or sex-specific products or services. The neutrality of the brands and industries used in this thesis suggests that even if the demographics, used as control variables changed over time, the collected data would not deviate significantly. In online marketing, variables such as experience, budget, cultural background and technological savviness would be more rational options as control variables (Vineet and Tilak, 2016).

4.6 Methods of data analysis

This thesis utilizes IBM SPSS (Statistical Package for Social Sciences) version 23.0.3 for the preliminary data analysis and IBM SPSS AMOS version 23 to perform SEM. These two statistical packages were identified to be the most adequate to test the theoretical model and examine the relationship between its constructs.

4.6.1 Preliminary data analysis

Preliminary data analysis is primarily used to test data's adequacy for analysis. IBM SPSS tool represents the package of choice for many researchers (Zikmund, 2003) in coding the data, in performing *t*-tests to identify missing values and in skewness and kurtosis tests to examine normality. Standard descriptive statistics were performed for all items, including the calculation of mean values and frequencies to identify whether the collected data is usable for further interpretation. A variety of tests were performed on SPSS and are presented in more detail in section 6.4 of the data analysis chapter.

Pallant (2010) identifies missing data (questions that have not been responded to by the survey respondents) as a threat, reflecting a distortion of the data and a smaller sample size, thus affecting the representativeness of the target population (Tabachnick and Fidell, 2006). A crucial aspect of the preliminary analysis of data which will be used in SEM is identification of issues of non-normality, heteroscedasticity and multicollinearity (Hair et al., 2010). As far as the first is concerned, skewness

and kurtosis are the two most commonly used elements for testing normality (Tabachnick and Fidell, 2006) which refers to the distribution symmetry of the data. P-P plots, as well as other tests whose applicability is discussed in Chapter Five were also performed to visually test normality. Homoscedasticity is usually measured using the Levene's test or equivalent (section 6.4.5). Homoscedasticity is closely related to normality as non-normality translates to heteroscedasticity, which leads to false outcomes (Tabachnick and Fidell, 2006). The sequence of random variables is homoscedastic when all the random sequential variables share the same finite variance. Finally, multicollinearity poses a serious threat to statistical interpretation of data (Hair et al., 2010) in researches where constructs have a correlation of .85 or higher (Kline, 2005). Multicollinearity suggests that constructs are not unique hence examining their relationship makes little sense.

Table 19: Steps of preliminary data analysis

Property	Method	Cut-off points	Source
Missing data: No data values are stored for the variable in an observation	Calculation of mean values in SPSS	10%	Hair et al. (2010)
Outliers: Observation points that are distant from other observations.	The data of this study presents no outliers		
KMO test: A measure of how suited the data is for actor analysis. The test measures sampling adequacy for each variable in the model and for the complete model	Calculation in SPSS	> .5	Hutcheson and Sofroniou (1999)
Bartlett's analysis: The validity and suitability of the responses collected for the problem being addressed through the study	Calculation in SPSS	p < .05	Field (2005)
Normality: Whether sample data has been drawn from a normally distributed population	Skewness and Kurtosis tests in SPSS	Skewness: ± 1 Kurtosis: ± 3	Hair et al. (2010)
Homoscedasticity: A sequence or a vector of random variables is homoscedastic if all random variables in the sequence or vector have the same finite variance	Brown and Forsythe's test in SPSS	p > 0.05	Field (2005)
Multicollinearity: A phenomenon in which two or more predictor variables in a multiple regression model are highly correlated, meaning that one can be linearly predicted from the others with a substantial degree of accuracy	Variance Inflation Factor (VIF) and tolerance	< 10 and > 0.1 accordingly	Hair et al. (2010); Pallant (2010)

Source: The author

4.6.2 Structural equations modelling (SEM)

Data screening and cleaning was conducted in order to identify whether the collected data would fit the essential criteria for further analysis. The next logical step to test a model such as the one presented in this thesis is to perform SEM to check whether the hypotheses associated with the model are confirmed or rejected. SEM is currently one of the most significant and widely used methods of quantitative research in the field of marketing (Baumgartner and Homburg, 1996), which

this study falls into. SEM is also a primary research tool in other areas such as psychology (MacCallum and Austin, 2000) and management (Williams, Edwards and Vandenberg, 2003). SEM is generally considered as a powerful method to test theory (Steenkamp and Baumgartner, 2000) and its combined features perform a process with a “singular philosophy” that is also considerably different from others that are widely used in marketing modelling (Bagozzi, 1994, p. 3). The use of SEM in marketing research has been substantially increased during the past two decades since proposed theories are becoming more complex (Shook et al., 2004). Although the origins of SEM date back to the nineteen-forties (Joreskog and Wold, 1982), the method started becoming an important empirical tool in multidisciplinary research in the seventies (Goldberger and Duncan, 1973; Blalock, 1971). According to Bollen (1989) and Hair et al. (2005), SEM’s philosophy is founded on three pillars: the path analysis, the synthesis of latent variables and measurement models and the methods to estimate the parameters of a structural model.

According to Shah and Goldstein (2006, p. 38), SEM is a method used to

[...] specify, estimate and evaluate models of linear relationships among a set of observed variables in terms of a generally smaller number of unobserved variables [...]

Hoyle (1995, p. 32) suggests that SEM offers an evaluation of how well a conceptual model “that contains observed indicators and hypothetical constructs” explains or fits the collected data. Essentially then, SEM quantitatively expresses whether the (linear) relationship between unobserved variables (latent variables) is endogenous or exogenous. A thorough SEM analysis involves a combination of confirmatory factor analysis (CFA) and path analysis, a hierarchy of steps that is often violated by researchers (Nunkoo and Ramkissoon, 2012). Path analysis in SEM originates in correlation analysis (Diekhoff, 1992) and it is used to examine if (or to what extent) the actual correlations between dependent and independent variables in the proposed model are consistent with the researcher’s propositions (Davis, 1985). CFA is conducted while the researcher has *a priori*⁵ hypotheses about the latent variables in his or her conceptual model and the factors that form that model (Musil, Jones and Warner, 1998). A considerable strength of SEM is its ability to concurrently estimate a sequence of independent multiple regression equations, while also having the capability of integrating the latent variables into the analysis and taking the estimation process’ measurement errors into account (Hair et al., 1998). SEM assumes that the modelling process is theory-driven. Unlike physical or biological sciences that are heavily science-based, social sciences have a very important theoretical component. Furthermore, in social sciences, experiments are usually conducted to confirm the theory while in other sciences the opposite is true (Alaszewski, 2009). As

⁵ Denoting reasoning or knowledge which proceeds from theoretical deduction rather than from observation or experience

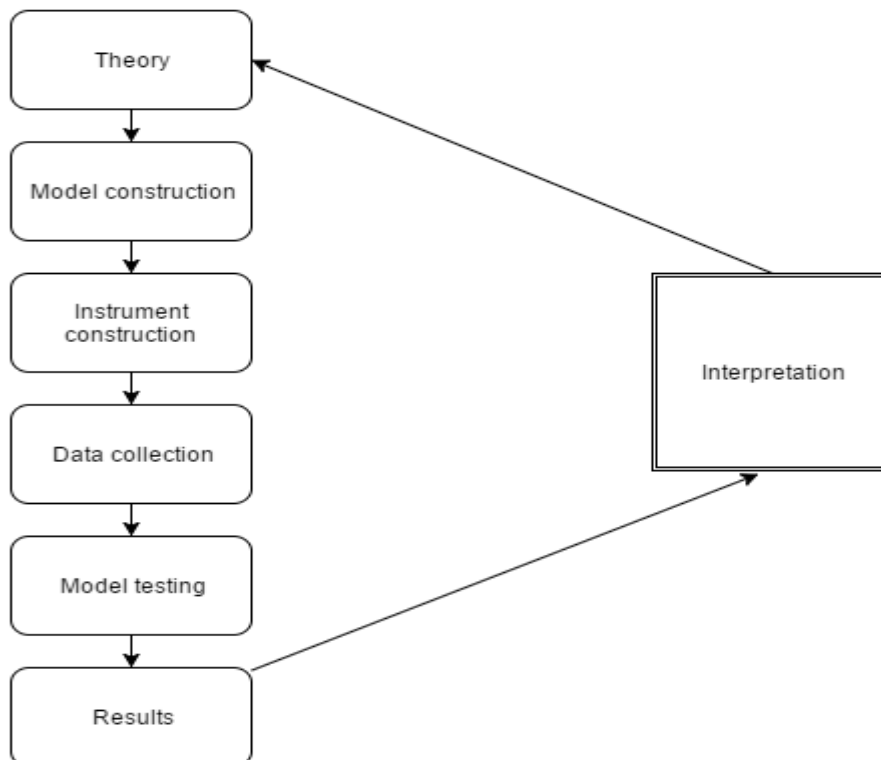
Kline (2005) and Byrne (2001) suggest, SEM is a particularly useful tool in confirmatory analysis and modelling, assessing an existing theory using empirical data to test a conceptual model (Chou and Bentler, 1995). As a reasonable outcome of the above, conceptual models that are tested via SEM should be products of theory and largely supported by it. The relationship between a model's variables should therefore be driven by theory (Reisinger and Turner, 1999) and it is suggested that to take the full advantage of SEM's potential, studies should be justified by sound theoretical awareness (Dann, 1988). In line with the above, the present study uses structural equation modelling to test 12 (plus two additional) assumptions that do indeed have wide theoretical validation. The relationship between the model's constructs is supported by social psychology and marketing theories as scrutinised in Chapter Two.

SEM is often preferred to regression analysis in social research. The main reason is because both dependent and independent variables are treated as random variables with error measurement (Golob, 2003) in SEM analysis. Moreover, regression analysis assumes perfect measurement of variables, something which is very uncommon in social science (Bohrnstedt and Carter, 1971; Musil et al., 1998). As a result, with the existence of measurement errors, the use of regression analysis would mean ignoring these errors, something which could lead to statistical inaccuracies. Mackenzie (2001, p. 2817) specifically argues that errors in independent variables can alter all other regression coefficients if regression analysis is used. He also posits that errors in the dependent variables are likely to "artificially reduce the proportion of variance in the dependent variable accounted for by the independent variable". SEM's popularity is also increasing because of its ability to test all the structural model's hypotheses simultaneously while other statistical procedures (such as multiple regression) bind researchers to test models with a single dependent variable (Cheng, 2001). The selection of SEM for this thesis was consequently rather straightforward.

While SEM is associated with several advantages and is increasingly viewed as the data analysis method of choice in RM, it is not free from certain criticism. First, the sole application of SEM does not assure reliable findings (Martínez-López et al., 2013) but contributions to knowledge through SEM depend on its proper application from the researcher. On these grounds, SEM allows for a lot of researching 'maneuvering', permitting modifications to the data that ensure a better model fit but are likely to produce flawed statistical results. Furthermore, Chin (1998) suggests that the interaction between theory and data is a highly unstable one and may be imprecise if SEM is not applied correctly, something which can be likely to happen since different data types require different interpretation. Several researchers have identified problems, constraints, misconceptions

and serious flaws associated with SEM (Tomarken and Waller, 2005; Shook et al., 2004; Baumgartner and Homburg, 1996; Hulland et al., 1996; Steenkamp and Van Trijp, 1991). These issues include, but are not limited to, questioning the sequencing of variables, the logic behind SEM model testing, the evaluation approaches of model fit and model fit statistics, the cut-off values, the statistical power of SEM and the relative lack of available options when the chi square fit test is not accepted. Theory is important in SEM as was discussed already. This means however that achieving a good model fit using data for relationships that are not adequately justified by theory can be a product of sheer chance and the statistical analysis might provide statistical validation to a model which is conceptually wrong (Chin, 2008). Weston and Gore (2006, p. 766) identify a substantial debate and sometimes disagreement concerning the fit indices that should be used, with some researchers characterising even the most commonly used ones (like RMSEA) as sometimes “plainly wrong”. Similarly, other scholars (Crowley and Fan, 1997) found that major fit indices do not take into account the knowledge a researcher has about his or her model. When good fit indices are observed for models that the researcher knows little about, a problem of specifying the parameter estimates and the sample data used to drive the estimation process occurs. In simple terms, “less rigorous theoretical models can, ironically, have better fit indices” (Martínez-López et al., 2013, p. 73).

Figure 3: Basic approach to performing SEM



4.6.2.1 Covariance-based SEM

There are two major methods of conducting empirical research using SEM. Most researchers prefer a covariance-based analysis (CBSEM) which is concentrated on the estimation of a set of model parameters as Jöreskog and Sörbom (1982, p. 1) suggest:

[...] so the theoretical covariance matrix implied by the system of structural equations is as close as possible to the empirical covariance matrix observed within the estimation sample [...]

Although CBSEM is the SEM method of choice for many researchers, it incorporates some essential assumptions. These include the normal distribution of the observed variables and a sufficient sample size which is usually equal or larger than 200 (Reinartz et al., 2009; Boomsma and Hoogland, 2001) or 300 (Hair et al., 2010). If these assumptions are violated, researchers have an alternative, non-traditional SEM option, namely the partial least squares (PLS) method (Rigdon, 2005).

Covariance-based SEM and partial least squares are essentially two different solutions to the same problem. There is no significant quantitative rationale in using the one or the other, apart from some theoretical guidelines concerning the sample size, data normality and mode of research (deductive or inductive). Since the sample size is large enough and since this thesis does not intend to generate new theory, the CBSEM method was chosen as a method of choice for the testing of the conceptual model.

A brief concentrated analysis of the main differences between the two SEM methods is presented in table 20.

Table 20: VBSEM vs CBSEM

Criterion	CBSEM	VBSEM (PLS)
Objective of the analysis	CBSEM shows that the null hypothesis of the model is plausible, while rejecting path-specific null hypotheses that have no effect	PLS rejects a set of path-specific null hypotheses that have no effect
Required theory base	Widely used in confirmatory research/it is based on theory	Does not require a solid theoretical foundation/supports explanatory and confirmatory research
Assumed distribution	Multivariate normal, if estimation is through maximum likelihood. Deviations from multivariate normal are supported by other techniques	Relatively unaffected to deviations from normal distribution
Epistemic relationship between latent variables and measures	Reflective indicators	Mostly formative indicators

Source: Roula Alasaad (2015)

4.6.2.2 AMOS

AMOS 23 is the SEM program that the present study uses to test its conceptual model. This decision was taken because path diagram and path analysis features are much more complicated and laborious in LISREL and mPLUS than in AMOS since endogenous and exogenous variables must be specified in a clear way before the option for path analysis becomes available (Clayton and Pett, 2008). Additionally, LISREL requires researchers to have a decent knowledge of the Greek letter taxonomy assigned to the matrices defining the parameters of a model (Nunkoo and Ramkissoon, 2012), making the use of AMOS more convenient. Additionally, AMOS is openly provided by Brunel University to its doctoral students, reducing the research's costs significantly.

4.6.2.3 SEM fit indices

Evaluation of the model fit in SEM is done through the examination of a series of fit indices. These goodness-of-fit indices are used to describe whether the data collected support the conceptual model and its underlying hypotheses. More than thirty of these indices exist and can be calculated (Arbuckle, 2003), making the choice of the most appropriate ones a very complex process. Besides, the literature does not provide a clear guide on which of these indices better appraise whether the model fits the data. There is an ongoing debate on the nature and the number of indices which should be used. For instance, early research carried out by Anderson and Gerbing (1988) proposes that researchers should report more than one indices. Kline (1998), increases this number to four, while a few other researchers (Hair et al., 1995; Holmes-Smith, 2006) propose a minimum of three indices, one for every group of the model fit. These groups will be discussed in section 4.6.2.3.1. Research in marketing has not revealed any insights that would make the choice of indices straightforward but it seems that several of them are more widely used than others. The present study goes above and beyond the literature's recommendations using nine goodness-of-fit indices to assess the explanatory power of the collected data.

4.6.2.3.1 Fit indices groupings

Fit indices are generally divided into three broad categories: absolute, incremental and parsimonious. Although there is still disagreement between scholars concerning what each group should contain, it is generally accepted that absolute and incremental indices are not testing a null hypothesis but explain how much of the variance in the covariance matrix has been accounted for (Hair et al., 1995) and that the former does not compare the model with another, while the latter

describes discrepancies from a null, or perfect model (Byrne, 2001). A table containing the indices used by this study, along with their critical values is presented below.

Table 21: Summary of fit indices

Index name	Comments	Critical values	Source
Absolute fit indices			
- χ^2	$\chi^2 = F*(N-1) *$		
- GFI	Goodness of fit index	> .8	Hair et al. (2009)
- RMSEA	Root mean square error of approximation	< .08	Hair et al. (2009)
- SRMR	Standardized root mean square residual	< .05	Enrique et al., 2013
Incremental fit indices			
- TLI	Tucker Lewis Index	> .9	Hair et al. (2009)
- CFI	Comparative Fit Index	> .9	Hair et al. (2009)
- AGFI	GFI adjusted for number of parameters	> .9	Lee et al. (2012)
- NFI	Normed Fit Index	> .9	Hair et al. (2009)
Parsimonious fit indices			
- Normed chi-square		$1 \leq \chi^2 / df \leq 3$	Bagozzi and Yi (1998)

Source: The author

* where F = the value of the fitting function and N = sample size (number of participants)

4.6.2.3.2 Absolute fit indices

Absolute fit indices are solely derived from the fit of the obtained and implied covariance matrices. χ^2 (chi-square) is fundamental in social research and is derived from the fitting function (F) defined as the function representing the fit between the implied and observed covariance matrices (Bentler, 1990). It is called χ^2 because it is distributed as such when the model is correct and endogenous variables have multivariate normal distribution. Despite its usefulness however, it has been widely criticised in terms of its sensitivity to the sample size and distribution of variables (Marsh et al., 1988; Jöreskog and Sörbom, 1996). Large sample sizes (significantly more than 200) might produce a large, significant chi-square value and thus Type I error. In contrast, sample sizes smaller than 200 might also be accepted, producing a Type II error. Furthermore, when the assumption of normality is not satisfied, skewed or kurtotic variables can significantly increase chi-square (Bollen, 1990).

GFI, or goodness-of-fit index, is a widely-used index assessing the appropriateness of the proposed model based on the collected data. The index was proposed by Jöreskog and Sörbom (1981) as an alternative to χ^2 and does not compare to the baseline model. It calculates the proportion of variance that is accounted for the estimated population covariance (Tabachnick and Fidell, 2007) by showing how closely the model replicated the observed covariance matrix (Diamantopoulos and

Siguaw, 2000). GFI tends to have a downward bias when degrees of freedom (df) are many, while the opposite is true when the number of parameters is high and the sample is large (Sharma, Mukherjee, Kumar and Dilon, 2005; MacCallum and Hong, 1997; Miles and Shevlin, 1998). Although there is disagreement over its cut-off point with different researchers (Sharma et al., 2005) suggesting different ones (.9 or .95) and although this index has been heavily criticised due to its sensitivity, it was selected for this study because it has been found to perform much better with path models instead of latent variable ones (Hu and Bentler, 1998).

RMSEA (root mean square error of approximation), developed by Steiger and Lind (1980), is a simple index effective in telling how well the model fits the population covariance matrix (Byrne, 1998). The error of approximation, which measures the lack of fit of a model to population data when parameters are optimally chosen, makes RMSEA favour parsimony as it chooses the model with fewer parameters. This sensitivity to the model parameters deems it “one of the most informative fit indices” (Diamantopoulos and Siguaw, 2000). Early scholars (MacCallum et al., 1996) suggested that values above .1 indicate a poor fit, while values between .08 and .1 a mediocre fit. More current research however has generally revealed that good fit ranges between a bottom limit of .05 and an upper limit of .06 (Hu and Bentler, 1998), .07 (Steiger, 2007) or a maximum of .08 (Hair et al., 2005).

SRMR (standardized root mean square residual) is a standardized formula which puts RMR into an easily interpretable metric and is regarded as a ‘badness-of-fit’ index because low values indicate an adequate fit. SRMR was preferred to RMR in this thesis since the latter is calculated based on the scales of each indicator, thus questionnaire items with varying levels (such as anchors ranging from 1 to 7) are very likely to produce inaccurate outcomes (Kline, 2005). Furthermore, SRMR is expected to be lower in models with fairly large sample sizes like the one here. An SRMR value of zero would indicate a perfect fit, however values that range between that and .05 are generally accepted (Byrne, 1998; Diamantopoulos and Siguaw, 2000).

4.6.2.3.3 Incremental fit indices

Incremental fit indices compare the proposed model with a null. In other words, they are used to show how good a model is compared to a perfect, hypothetical one.

The first index in this category used is TLI. The Tucker-Lewis index, also known as the non-normed fit index (NNFI), was proposed by Bentler and Bonett (1980) to improve the Bentler-Bonett index in terms of adding penalties for more parameters. TLI depends heavily on the average size of the data

correlations and where this size is small, the index will be small as well, indicating a poor model fit. In other words, TLI is a useful tool in measuring whether a theoretical model makes logical sense in terms of the hypothesized relationships. If constructs have little conceptual relationship with one another, then TLI will be small, urging the researcher to be cautious about generalising the analysis' outcomes. Hair et al. (2009) suggests that a reasonably good TLI index is greater than .9 and that values below this threshold designate a poor model fit.

NFI (normed fit index), although sometimes not recommended by literature (Enders and Tofighi, 2008), is still extensively used in social research (Hair et al., 2009; Byrne, 2001). NFI shows the proportion to which the researcher's model fits the null model. Similar to the Bentler-Bonett index, the ground on which it has been criticised is mostly based on the fact that it does not penalise model complexity. Consequently, adding more parameters to the model essentially increases its value, improving its fit. The present thesis however is comprised of nine constructs, a number considered appropriate (Hair et al., 2009) hence NFI is used as a measure to assess its fit. Values above .9 represent a fair model fit, while values above .95 a very good one (Hair et al., 2009).

Comparative fit index (CFI), as the name suggests, compares the performance of a model to that of a baseline one where no correlations between all observed variables are assumed. It was proposed by Bentler (1990) and unlike most other incremental fit indices, performs very well irrespective of the size of the sample, making it one of the most reported indices in SEM (Fan, Thompson and Wang, 1999). CFI is interpreted as TLI and NFI and, like them, a value that is close to 1.0 indicates a good fit, thus a correctly specified model (Hu and Bentler, 1998).

AGFI (adjusted goodness-of-fit index) adjusts GFI based on the model's degrees of freedom and increases with sample size. It therefore makes sense for surveys with more than 200 respondents to present this index (Tabachnick and Fidell, 2007). As with GFI, AGFI also takes values between 0 and 1.0 and values above .8 demonstrate a well-fitted model.

4.6.2.3.4 Parsimonious fit indices

Parsimony in SEM represents the degree to which a model fits each estimated coefficient and its purpose is to maximize the fit of each estimate coefficient (Hair et al., 1995). The most common parsimonious index is the normed chi-square (χ^2/df) and it is normally accepted if it takes values between 1.0 and 3.0 (Carmines and Mclver, 1981). More recent trends, however make the

acceptance criteria stricter (Hair et al., 1995; Tabachnick and Fidell, 2001), suggesting that its value should not exceed 2.0.

4.6.2.4 Reporting of indices

Reporting of all fit indices in SEM is unrealistic and problematic as each study has its own characteristics that require a careful selection of indices that echo its structure and objectives. Given their large number and the general disagreement between scholars concerning their appropriateness, researchers might be tempted to only use those that provide a better fit for their model. This, however, would be a major mistake (Hooper, Coughlan and Mullen, 2008) in terms of ethicality, accuracy and generalizability of the findings. Instead of hiding important information, researchers should carefully choose the combination of indices that make most sense and try to find ways to improve their model. This thesis, consistent with McDonald and Ho (2002) who identified that the most presented indices in social research are CFI, TLI, GFI and TLI, included them in the final report. Furthermore, despite the criticism, chi-square and its degrees of freedom remains a very important fit index which should always be reported (Kline, 2005; Hayduk, Cummings, Badu, Pazderka-Robinson and Boulianne, 2007). Hu and Bentler (1998) suggest that all social researches should also report TLI, SRMR, CFI and RMSEA. Boomsma (2000) also considers reporting of RMSEA and SRMR essential. Based on the above recommendations, this thesis reports the nine most important fit indices, a number which is significantly higher than the four to five indices which are usually reported in similar studies (Hooper et al., 2008).

4.6.2.4.1 Reliability and validity

Reliability and validity are two methods of data tests that are habitually discussed together in research. They are, however, distinct since data can be reliable but not valid and vice versa (Bollen, 1989). Reliability describes a measure's consistency, or whether similar results will be provided if the data analysis is repeated (Malhotra, 2003). On the other hand, validity is measuring the data's accuracy and if instruments measure what they are supposed to (Sekaran, 2000). For data to be consistent, both assumptions should be satisfied. If they are not, then either the recommended measurement instruments are wrong, or replication of the research may provide totally different outcomes.

4.6.2.4.1.1 Reliability

Measures are considered reliable when they provide consistent outcomes and are free from random errors (Zikmund, 2003). Measures that exhibit high reliability contain smaller errors (Punch, 1998) hence reliability tests' rationale is to minimise the possibility of such errors (Yin, 1994). Reliability in social research is usually expressed by internal consistency, defined as the assessment of a scale's reliability for a construct formed of several different items (Malhotra, 1996). The most elementary method to measure internal consistency is to divide the items of a construct into two groups and compare them. This method is called split-half reliability and despite its convenience, it is associated with a major limitation, the way in which items are divided is often unclear. Coefficient analysis and particularly Chronbach's alpha (1951) is commonly employed to overcome this issue (Sekaran, 2000). As (α) quite accurately measures a construct's internal consistency, it represents the method of choice for evaluating whether the used items (particularly Likert-scale items) are correctly measuring a construct (Churchill, 1979; Sekaran, 2000). The alternative reliability measurement method is called repeatability, which involves retesting the same construct more than once using the same sample but under different conditions. If the results are the same, or similar, then the construct is reliable (Malhotra, 1996). This approach however is virtually impossible to be implemented in research like the present since survey respondents are anonymous and can't be re-approached. Furthermore, this technique encompasses several other limitations including the change of the respondents' behavior due to the time which has passed between the tests and the change of their behavior based on their previous knowledge of the questionnaire (Zikmund, 2003). With consideration of the above, this thesis takes a rational approach to testing data reliability by using the Chronbach's coefficient alpha method. Cut-off values of (α) are subject of debate with different scholars recommending different values. Nunnally (1967) for example considered constructs with an (α) > .5 as reliable, whereas he increased this to .7 in his later papers (1978). Other scholars (Carmines and Zeller, 1979) suggest that Chronbach's alpha is not a strong method of measuring reliability and should be considered accurate only for values that exceed .8. Based on popularity and experience, this thesis adopts .7 as the lowest acceptable value of (α). Chronbach's alpha values for this thesis' constructs are presented in table 26.

Chronbach's alpha is however a means to an end and not an end in itself when testing instrument reliability. EFA (exploratory factor analysis) or CFA (confirmatory factor analysis) are common ways to measure the constructs' unidimensionality (Anderson and Gerbing, 1988). EFA is the method of choice for constructs that are synthesized from new scale items while CFA is usually employed for constructs that have been validated in previous studies. Hair et al. (1995) further suggest that a

combination of CFA and α is preferred if not measuring reliability only but the items' stability as well. CFA in this thesis was performed using AMOS 23 and the results of the analysis are presented in table 26. CFA was performed using the Fornell and Larcker's (1981) approach, which is widely applicable in RM research (De Wulf et al., 2001; Hsieh and Hiang, 2004). Consequently, average variance extracted (AVE) and composite reliability (CR), or ω , were calculated for all nine constructs. AVE is a measure of the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error (Fornell and Larcker, 1981), or the overall item-related variance accounted for by the latent construct. In contrast, CR differs from Chorbach's alpha in the sense that it refers to sets of measures instead of single variables to quantify the degree to which a set of items explain the variable (Holmes-Smith et al., 2006). As a general rule, the cut-off values for CR and AVE are .6 and .5 accordingly (Bagozzi and Yi, 1988) and are presented in table 26.

4.6.2.4.1.2 Validity

Validity does not only reflect a valid relationship between a construct and its indicators (Punch, 1998) but also "the ability of a scale to measure what it is supposed to" (Zikmund, 2003). Construct validity refers primarily to two things; it should adequately represent the domain of observable variables as well as the alternative measures and should be related to the other constructs of the model (Nunnally and Bernstein, 1994). This thesis examines the constructs' content and construct validity to assess internal validity. External validity is also evaluated to determine the degree to which end outcomes can be generalized.

4.6.2.4.1.2.1 Content validity

Also referred to as face validity, content validity represents a systematic method to evaluate whether a scale actually measures a construct (Malhotra, 1996). In assessing content validity for its measures, this thesis employed a small panel of experts to determine the suitability of existing measures which were extracted from previous studies. Based on the recommendations of Cooper and Schindler (1998), both academics and practitioners were asked to assess whether current measures could be used to measure the nine constructs of the conceptual model. Although this is a widely-accepted method to ensure content validity, its subjective nature (Zikmund, 2003) means that it is not on its own sufficient to provide a definite confirmation of the measures' validity. It should therefore be used with caution and along with other validity assessment approaches. The alterations in wording that the panels suggested are presented in table 14.

4.6.2.4.1.2.2 Construct validity

Construct validity in social sciences is usually measured by investigating both discriminant and convergent validity. The notion of construct validity in statistics is closely related to the meaning of the instruments (Churchill, 1995) and it shows the extent to which the research analysis outcomes reflect the underlying theories that were used for construct and model development (Sekaran, 2000). Alternatively, as Yin (1994) suggests, it is associated with the development of the right measures for what is being tested. Convergent validity is necessary in ensuring that “two measures of constructs that theoretically should be related are in fact related”; while discriminant, or divergent validity tests whether measurements that are not supposed to be related, are in fact not (Campbell and Fiske, 1959).

CFA was employed in this thesis to assess the validity of the constructs. More specifically, factor loadings that are higher than a certain cut-off value indicate that items adequately measure their intended constructs. The acceptance values of factor loadings are a subject of debate. Several researchers (Hair, Tatham, Anderson and Black, 1998; MacCallum, Widaman, Preacher and Hong, 2001) propose that these values are dependent on the sample size, while others (Guadagnoli and Velicer, 1988; Field, 2005) recommend that sample size is not relevant. The former group of researchers posits that with larger sample sizes (over 200), factor loadings lose their meaning and items with factor loadings of over .4 should be accepted. Comrey and Lee (1992) proposed a scale according to which loadings below .32 are regarded as poor, between .32 and .55 fair, .55 to .63 good and over .71 excellent. The writer of this thesis however believes that having a very low or less stringent value than the .6 suggested by Steenkamp and Van Trijp (1991) violates the very essence of social research. Factor loadings represent the causal effect between a latent and an observed variable and their correlation. Therefore, their strength greatly depends on the theoretical relationship between the variables. For example, items that many people are likely to respond to similarly (eg. “I enjoy consuming”), are much more likely to be associated with higher loadings. In contrast, very low loadings would, in many cases, mean that the two measured constructs would not pass convergent validity tests. In other words, accepting items with very low loadings could mean the constructs that are supposed to be conceptually related, are in fact not. This thesis consequently adopts all items that have factor loadings greater than .6. To assess convergent validity, constructs’ AVEs have also been calculated (Fornell and Larcker, 1981).

Discriminant validity was tested by comparing the square roots of AVEs with the off-diagonal construct correlations (table 27). If items exhibit a greater value, then the Fornell-Larker criterion of

discriminant validity is satisfied. Furthermore, 95% confidence intervals of the correlations among constructs were also calculated. When none of them includes the value of 1.0, then discriminant validity is supported (Bagozzi, 1994).

4.6.2.4.1.2.3 External validity

External, is a validity assessment method rarely presented in social researches. It is however important since it is a criterion for generalizability of the research's findings to other objects or groups of people (Zikmund, 2003). External validity for this thesis was achieved by ensuring that all the observed and examined OBCs were representative of the wider picture (massive firm-hosted OBCs) and that the research took place in a real-world context (Leedy and Ormrod, 2001).

Table 22: Scale psychometric properties

Property	Method	Cut-off points	Source
Internal consistency: A measure based on the correlations between different items on the same test (or the same subscale on a larger test). It measures whether several items that propose to measure the same general construct produce similar scores	Cronbach's alpha (α): The degree of internal consistency	$\geq .7$	Nunnally and Bernstein (1994); Hair et al. (2006)
	Outer loadings: High loadings indicate convergence on some common point	$\geq .5$	Anderson and Gerbing (1988); Hair et al. (2010)
Convergent validity: The degree to which two measures of constructs that theoretically should be related, are in fact related	Factor loadings/cross loadings: Loadings of constructs must be greater than its cross loadings	$\geq .6$	Hair et al. (2010); Steenkamp and Van Trijp (1991)
	Average Variance Extracted (AVE): Average percentage of variation explained among items/a summary measure of convergence among a set of items representing a latent variable*	$\geq .5$	Bagozzi and Yi (1998); Hair et al. (2010)
	Composite Reliability (CR): An assessment of the overall reliability of the model/high reliability is an indication of internal consistency of a construct**	$\geq .7$	Nunnally and Bernstein (1994); Bagozzi and Yi (1998); Hair et al. (2010)
Discriminant validity: Tests whether concepts or measurements that are not supposed to be related are unrelated	High discriminant validity reflects distinction between constructs/comparing AVEs of any two constructs of the model, their squared correlations must be lower than the AVE of any construct/95% confidence intervals of the correlations among constructs is calculated. If none of them include the value 1.0, then discriminant validity is supported		Churchill (1979); Fornell and Larcker (1991); Henseler, Ringle and Sinkovics (2009); Hair et al. (2010).

Source: The author

*, **: AVE and CR are used in both reliability and validity tests

4.7 Ethical considerations

Ethics are a set of behavioral principles and norms which should be applied in business research and concern all those involved in it including the researcher, the moderators and the participants (Sekaran, 2003). Ethics should be taken into consideration at all stages of the research, beginning from the conception of the research idea until the presentation of its findings. Ethical considerations apply to the involvement of people, revealing of their identity, exposing them to harm, changing of their life conditions without their prior knowledge or consent and persecuting them (Stevens, 2013). They also extend to the protection of natural life and the environment. Polonsky and Waller (2005) posit that all researchers should be aware of the basics of ethical research and apply them through all stages of their projects. Ethics are especially important in academic research where the researcher might be tempted to not interpret contaminated data, present inaccurate or stolen data, or plagiarise (Bryman and Bell, 2011). This study takes ethical considerations very seriously, applying them to all its three stages. It should be stated that ethical considerations differ from legal ones since some behaviours or attitudes can be legal but at the same time unethical (Churchill, 1995).

Beginning with the research proposal, the researcher, to the extent possible, was truthful regarding the study's projected novelty and practical and theoretical contributions based on a thorough review of the current literature, as well as its feasibility within the available timeframe and cost. Furthermore, it was declared that the final title would be decided along with the supervisors and no unilateral decisions would be taken at any stage.

Ethical considerations were particularly accounted for during the phase of data collection. Although quantitative researches like the present are associated with less complex ethical issues than qualitative ones (Stevens, 2013), the researcher followed Bryman and Bell's (2011) guidelines of causing no physical or psychological harm to participants, or engaging in any actions that would damage them in any way. In addition, the purpose of the study was clearly explained at the front page of the survey, participation to the research was entirely voluntary and anonymity was ensured. In addition, all participants knew that their responses would be used in aggregate datasets for the purposes of academic research only and not for personal profit. Brunel University's own research ethics committee (BREO) provides a platform to ensure the quality of the proposed research as well as its independency, impartiality, confidentiality and integrity. Written consent for data collection was given on February 20th, 2017.

Finally, after the completion of the study, the researcher should remain focused on the principles of ethicality by making sure that his or her collected data will be destroyed, will not be reproduced and will not be used for personal gain or be sold to third parties or companies.

4.8 Conclusions

Chapter Four provided justification for the methodology of this thesis. The study quantitatively measures the conceptual model's constructs before proceeding to their causal analysis. An online 52-item self-administered questionnaire was chosen as the most appropriate way of data collection. The questionnaire was sent to participating members of ten large UK-based OBCs over a period of five months. This chapter also elaborates on the phases of methodology design and data collection which began with a pre-test to evaluate the applicability of previously validated survey items to the context of this research. The final test follows this process after slight item modifications. A detailed analysis of the selection process of items is given to provide solid conceptual reasoning for their use. The statistical method which is employed by the following chapter to empirically test the hypotheses is also discussed and defended. The advantages and weaknesses of SEM are analysed. The chapter begins with a general presentation of the role of theory and research philosophy in the present study, creating the context of the thesis and it ends with confirming its ethicality.

Chapter Five is concerned with data screening, descriptive and sample statistics. It tests the hypotheses of the theorized model based on the data collected. Data analysis is divided into two parts: analysing the measurement model and analysing the structural model using SPSS 20 and AMOS 23.

5.0 Data analysis

“Things get done only if the data we gather can inform and inspire those in a position to make [a] difference.”

Mike Schmoker

5.1 Introduction

Building on the previous chapter, the analysis of collected data is presented here. The chapter begins with a presentation of the survey’s response rate (section 5.2). Section 5.3 contains evidence of data screening, coding and editing. Furthermore, it comprises insights on how the problem of missing data was dealt with and on the tests that have been used to assess normality, homoscedasticity and collinearity. Reliability and validity issues are discussed meticulously in section 5.4, with specific emphasis given to convergent and discriminant validity. The three phases of the measurement model (confirmatory factor analysis) are presented in section 5.5. CFA is used to determine whether the collected data fits the theoretical model. In order to achieve a good model fit, three phases of model readjustment were employed and included primarily the removal of redundant items. Section 5.6 then is concerned with the actual structural model and the testing of the proposed hypotheses. The two additional hypotheses derived from the conceptual model and discussed in Chapter Three are deliberated in section 5.7. A short conclusion (section 5.8) acts as the chapter’s epilogue.

5.2 Response rate

The data used in this thesis was collected through ten massive OBCs from February to June 2017. The large number of examined OBCs ensured that no industry-specific bias would limit the generalizability of the findings. A breakdown of the questionnaires sent to members of each OBC is presented in table 16 since OBCs showed various levels of activity. A total of 4762 questionnaires were sent and 1044 were returned. A significant number of returned questionnaires (432) came from three OBCs (Canon, Sony PlayStation UK, iPhone UK), while other OBCs (Dell UK, British Airways, Dendy, Adobe Photoshop UK) returned a smaller number (a total of 143). Questionnaires with more than four unanswered questions were deleted. This left a total 306 questionnaires for statistical interpretation. Although a completion of 75% is generally the rule of thumb for questionnaire usability (Sekaran, 2000), this thesis used the much stricter threshold of four unanswered questions (10%) to ensure that missing data was not intentional and completely at random.

Although the response rate is very low, this was expected since response rates for online surveys are expected to mirror this pattern but the sample is still representative of the population (Fricker and Schonlau, 2002; Ilieva et al., 2002). Particularly in OBC research, response rates can fall below 7% (Petrovčič et al., 2015) which is the case for this thesis.

5.3 Data screening

There is no standard procedure for cleaning the data to make it error-free and usable or to remove inaccurate records. Removing duplicate answers, correcting spelling errors, identifying missing data and eliminating outliers are some of the most common approaches to data cleansing. Since an online questionnaire with fixed responses was used for this study, scrubbing data involved the identification and replacement of missing values only as no outliers were present.

5.3.1 Data coding and editing

Collecting data is a process which requires careful recording of trends and regular editing. Zikmund (2003) considers editing as an integral part of data processing and analysis. Editing in this thesis was mostly administered automatically since the survey tool which was used to collect the data (www.surveymonkey.co.uk) has several related options. It was adjusted to automatically discard all responses with more than 4 unanswered questions in the main body. This roughly represents the 10% threshold that is usually accepted in social studies (Hair et al., 2010). 735 responses were automatically deleted by the tool. From a total of 309 completed responses, another three were deleted following a simple standard deviation test performed on Excel. Responses with a standard deviation of .4 or below were deleted as the respondents were not considered to be engaged with the questionnaire.

Coding refers to assigning numbers to each answer in order to make it transferable to statistical programs such as Excel and SPSS. Coding was done after the completion of data collection (post-coding), automatically by the data-collection tool. Furthermore, all Likert-scale items were assigned a number ranging from one to seven to make statistical interpretation possible.

5.3.2 Missing data

For SEM to be executed, a researcher should first deal with missing data. There is an ongoing debate on whether missing data can significantly affect research outcomes with some experts suggesting that missing data as high as 10% are not a threat to the study (Hair et al., 2010), while others find

their presence problematic no matter what its extent (Hutcheson, 2012). For this thesis, as argued, survey responses with some (more than four) unanswered questions were discarded because they were considered incomplete. Deleting all responses containing any missing data was considered. This would reduce the sample size (Tabachnick and Fidell, 2006) however to below the threshold of 300 which was set as a target for this study, based on Hair et al.'s (2010) recommendations. Since all questionnaires were anonymous and surveying was not performed face-to-face and since questions did not require respondents to reveal, except from the screening section of the questionnaire, any personal, financial, health or cultural information, missing data was treated as completely at random (MCAR). In other words, participants, perhaps accidentally, skipped some of the questions. Despite the fact that this kind of missing data can be perceived as ignorable (Enders, 2010), statistical interpretation of the survey requires the missing values to be dealt with. AMOS which was used in this research, along with most other SEM packages, considers models with missing data as unidentified and provides erroneous results.

To identify the missing data and its scope, frequency tests were run for each of the 45 main-body survey items. The tests revealed 41 cases of values that were missing. Missing values were not concentrated towards a specific item but were completely scattered and therefore reinforces the assumption that missing responses were a product of coincidence and not an outcome of an inappropriate question that respondents did not wish to reply to. To summarize, from a total of 18405 values, only 41 (0.22%) were missing, a number which is significantly lower than Hair et al.'s (2010) verge of 10%. IBM SPSS was used to calculate the median (of two points) values of the variables and fill the missing data in.

5.3.3 Multivariate Analysis

The first step in survey data interpretation is usually the assessment of the data's fit for statistical analysis. While a few tests can be run in Microsoft Excel, the program that was principally used in this study for the multivariate analysis of the data was IBM SPSS. The sections below elaborate on the data's fit, normality, homoscedasticity and collinearity.

5.3.3.1 KMO and Bartlett's analysis

Any statistical analysis should be preceded by confirming that the collected data is appropriate for interpretation. KMO and Bartlett's tests of sphericity are factor analysis aspects and pre-tests for normality and statistical adequacy and are recommended to check the case-to-variable ratio for the

analysis being conducted (Peri, 2012). The Bartlett’s test is specifically used to verify the assumption that variances are equal across the sample. Consequently, it tests the significance of the study by showing the validity and suitability of collected responses to answering the addressed problem (Peri, 2012). It is an alternative test of homogeneity (homoscedasticity) that is discussed in more depth in section 6.5.

KMO (Kaiser-Meyer-Olkin) statistic can take values between 0 and 1. Low values indicate an inappropriate factor analysis since the sum of partial correlations is large relative to the sum of the correlations and hence there is a diffusion in their pattern. Conversely, values closer to 1 point out more compact variables that are much more likely to produce distinct factors. The KMO test is not a valuable tool in exploratory factor analysis (EFA) but very useful in any survey data interpretation (Field, 2005). Accepted KMO values should generally exceed .5 (Kaiser, 1974), while a more methodical interpretation of KMO categorises and sorts values into quintiles. Values below .5 are designated as unfitting, values between .5 and .7 as mediocre, those between .7 and .8 as good, results between .8 and .9 as great and finally those exceeding .9 as superb (Hutcheson and Sofroniou, 1999). Table 23 reveals that the KMO value for this study is .925 and therefore accepted.

As far as the Bartlett’s test’s values are concerned, an accepted value would be one indicating that there are some relationships between the variables. In other words, the test should confirm that the R-matrix is not an identity matrix and therefore factor analysis is appropriate (Field, 2005). As a logical consequence of the above, an accepted value would be a significant one (lower than .05), rejecting the null hypothesis that the original correlation matrix is an identity matrix. Table 23 suggests that for this study Bartlett’s test is highly significant. It is important to state here that EFA is not conducted, however KMO and Bartlett’s test provide a confirmation of the theoretical foundation of the model (Fabrigar et al., 1999).

Table 23: KMO and Bartlett's Tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.925
	Approx. Chi-Square	7024.021
Bartlett's Test of Sphericity	df	990
	Sig.	.000

5.3.4 Normality

The ‘bell curve’, also referred to as ‘Gaussian distribution’, is the most common visualization of data normality (Pallant, 2010). Normal is the most frequently used distribution in statistics and most statistical procedures assume that variables are normally distributed (Osborne, 2002). Mean (μ) and

standard deviation (σ) or variance (σ^2) are the parameters of normal distribution. Consequently, a variable (X) is normally distributed when $X \sim N(\mu, \sigma)$ or σ^2 . Normality testing in multivariate analysis is important as it represents the form of data distribution (Tabachnick and Fidell, 2006). A short and wide bell curve indicates a large standard deviation while a tall and narrow curve is a sign of a small standard deviation. Violations of the assumption of normality significantly increase the chances of either a Type I or II error (Zimmerman, 1998). Additionally, non-normality can be an indication of the presence of outliers and mistakes in data entry or missing data values (Osborne, 2002). Visual inspection (Orr, Sackett and DuBois, 1991) of this study's data through a simple P-P plot reveals that the data is normally distributed. The probability plot (P-P) presents a comparison between the aggregate distribution of a normal distribution and the aggregate distribution of the actual data values. In this case, the straight diagonal line represents the normal distribution (Hair et al., 2010) and the values (standardised) are scattered around it. Although the visual inspection indicates a normally distributed set of data, further statistical tests were conducted to assess normality since it is also one of the basic assumptions of SEM (Byrne, 2010). IBM SPSS typically provides three straightforward methods to do this. The KS (Kolmogorov-Smirnov) test, the SW (Shapiro-Wilk) test and the skewness-kurtosis test. The first one, it was decided, since there is no evidence of its validity and due to its many accuracy limitations (Engineering Statistics, 2016), not to be used. The same decision was taken regarding the second test since the Shapiro-Wilk test is invalid for sample sizes greater than 100 which is the case for this study (Coakes et al., 2009). A large sample size could enhance the likelihood of producing significant values ($p \leq .05$) for non-normality. As a result, only skewness and kurtosis tests were performed.

Skewness measures the lack of symmetry in a data set. Asymmetry is apparent when the data set does not look the same to the left (positive skewness) or to the right (negative skewness) of the central point (Tabachnick and Fidell, 2006). Kurtosis measures whether the data is heavy-tailed or light-tailed related to a normal distribution. Large kurtosis values are often an indicator for the existence of outliers. Kurtosis can either be platykurtic when there is a lower peak than the curvature representing a normal distribution or leptokurtic when the opposite is true (Hair et al., 2010; Scherer et al., 2010). A perfectly normal data distribution would provide skewness and kurtosis values of zero. Consequently, any deviations from zero indicate deviations from perfect distribution normality. Perfect distribution abnormality is also indicated by variables that differ by ± 3 on the skewness/kurtosis (Kline, 2005). As a general rule, data distribution is considered to be normal when skewness does not exceed ± 1 and kurtosis ± 3 . For studies that are not threatened by the presence of outliers like the present, a looser and unified threshold of asymmetry (skewness) and Kurtosis of ± 2 can be used (George and Mallery, 2010). As expected, since the sample size here

is large and large sample sizes tend to reduce statistical error and inaccuracy (Hair et al., 2010), the values of this study are distributed quite normally as shown in table 24.

There are five items which marginally deviate from the stricter skewness threshold of ± 1 but are still within the ± 2 range. Items BT1, BT4, BC2, WOM3 and WOM4 present skewness values of -1.009, -1.018, -1.085, -1.033 and -1.009 accordingly. Since their departure from 1 is small and not severe (less than .1 in all cases) and since some slight non-normality is expected in social sciences (Bentler and Chou, 1987; Barnes et al., 2001), no further measures were taken.

Table 24: Testing of normality

Item code	Mean	Standard deviation	Skewness	Kurtosis
BCI1	4.68	1.66	-.604	-.398
BCI2	4.94	1.592	-.605	-.32
BCI3	4.81	1.83	-.546	-.648
BCI4	4.16	1.716	-.221	-.747
BCC1	4.97	1.6	-.590	-.301
BCC2	4.58	1.68	-.540	-.404
BCC3	4.87	1.692	-.626	-.411
BCC4	4.59	1.595	-.405	-.474
BI1	4.55	1.692	-.493	-.539
BI2	4.21	1.764	-.265	-.871
BI3	4.69	1.661	-.560	-.451
BI4	4	1.824	-.034	-1.006
BA1	5.16	1.457	-.798	.375
BA2	5.24	1.435	-.951	.796
BA3	5.84	1.604	-.739	.034
BA4	5.37	1.387	-.863	.431
BA5	4.73	1.702	-.602	-.486
BA6	4.58	1.691	-.492	-.457
BA7	4.79	1.698	-.756	-.195
BA8	4.14	1.761	-.286	-.858
BA9	4.88	1.526	-.797	.222
BA10	4.74	1.606	-.654	-.18
BT1	5.59	1.35	-1.009	1.544
BT2	4.97	1.662	-.733	-.155
BT3	5.22	1.454	-.879	.561
BT4	5.5	1.391	-1.018	1.183
BT5	5.25	1.549	-.922	.39
BC1	4.8	1.673	-.675	-.17
BC2	5.76	1.395	-1.085	2.116
BC3	4.77	1.636	-.632	-.234
BC4	4.73	1.74	-.425	-.772
BC5	4.28	1.749	-.324	-.839
BC6	4.17	1.763	-.103	-.926

WOM1	5.2	1.462	-.882	.466
WOM2	5.42	1.579	-.877	.564
WOM3	5.67	1.468	-1.033	1.117
WOM4	5.74	1.397	-1.009	1.884
WTP1	4.71	1.706	-.623	-.392
WTP2	4.83	1.619	-.763	-.03
WTP3	3.95	1.815	-.046	-.953
WTP4	4.79	1.482	-.514	-.074
OBL1	4.43	1.685	-.216	-.71
OBL2	4.22	1.654	-.242	-.743
OBL3	4.22	1.723	-.097	-.845
OBL4	4.08	1.79	.008	-.844

5.3.5 Homoscedasticity

Homoscedasticity (equal variance), or homogeneity of variance is a classic linear regression assumption underlying the Gauss-Markov theorem⁶. Homoscedasticity tests have a variety of uses. Variations of these tests are commonly used to test whether data is missing completely at random (MCAR) in large sample sizes (Jamshidian and Jalal, 2010), as tests for complete data when the sample size is small (Hawkins, 1981), or as an alternative or supplement to normality tests (Tabacknick and Fidell, 2006). Homogeneity tests before conducting SEM are useful to explore the dependency between variables by showing that the variance of the dependent variables is equal to each level of the independent variable, assuming that dependent variables in the model exhibit equal variance across the range of predictors (Hair et al., 2010). Although homoscedasticity is an important and widely used tool to avoid falsely overestimating the model fit, it has often been criticised for its assumption that residuals (in most homoscedasticity tests) have the same distributional properties as the true error, an interpretation which is always an approximation (Schützenmeister, Jensen and Piepho, 2012). Residuals are understood as linear combinations of the true errors and so are stochastically dependent and may also be heteroscedastic. This can be the case in least square estimation where, according to Draper and Smith (1998), independent errors necessarily produce non-zero covariances between residual pairs. In addition, Atkinson (1985) posits that residuals might be supernormal⁷, affecting or weakening the strength of statistical analysis by ‘legitimising’ the outcomes of a model which could potentially otherwise be totally unfit for analysis. The term heteroscedasticity refers to the lack of homoscedasticity, resulting in unequal variances across the values of the independent variable, or the predictor variable (Kline, 2005) and may give unreliable standard error estimates of the parameters. Failing to gauge the true standard deviation

⁶ Ordinary least squares estimator is the best linear unbiased estimator (BLUE) of the linear regression coefficients, where the best is defined in terms of minimum variance.

⁷ Residuals that appear to be more normal than the underlying distribution of errors in a non-normal distribution

of these errors often results in very wide or very narrow confidence intervals (Cacoullos, 2001). Slight heteroscedasticity has little effect on significance tests (Tabacknick and Fidell, 2006; Berry and Feldman, 1985). Higher levels of heteroscedasticity however are much more likely to produce a Type I error weakening the analysis.

Homoscedasticity is usually tested using Levene's test (Pallant, 2010). For the present study, an alternative test (Brown and Forsythe's) was used for the analysis of variances. This decision was motivated by the criticism Levene's test has received in terms of its strength for unequal variances (Glass and Holpkins, 1996). Brown and Forsythe (1974) proposed an alternative test that provided accurate error rates when the underlying distributions for the raw scores deviate significantly from the normal distribution (Olejnik and Algina, 1987). In simple terms, this test was created to overcome violations of the normality assumption of ANOVA when absolute deviation from the group means scores are expected to be skewed. The basic difference between Levene's test and Brown and Forsythe's test is that the latter performs the ANOVA on the deviations from the group medians instead of the means, which is the case for the former, providing more robust results (Cody and Smith, 1997). It is important here to state that, as discussed in section 6.4.4, this study does not suffer from non-normality and Levene's test was also run and provided acceptable values of significance. Only Brown-Forsythe method's results are presented however since it is 'the best procedure to provide power to detect variance differences while protecting from Type I error probability' (SAS Institute, 1997). As in Levene's test, the assumption that the variances are equal is acceptable when Brown and Forsythe's test is insignificant; that is, p is equal or greater than .05. (Field, 2005). The test indicated insignificant p values for all variables, demonstrating that the homoscedasticity assumption holds.

5.3.6 Collinearity

This condition in regression analysis describes a situation where two (collinearity) or more (multicollinearity) variables are highly correlated. This correlation would mean that one can be linearly predicted from the other(s) with considerable accuracy (Farrar and Glauber, 1967). In other words, the presence of multicollinearity suggests that two or more variables necessarily measure the same construct (O'Brien, 2007) and that the independent variables' impact on dependent is less precise than if they were not so highly correlated (Wichers, 1975). This happens because collinear variables virtually comprise the same information concerning dependent variables. This phenomenon is a big problem in statistical analysis since the use of two or more diverse variables to measure the same thing means that they are redundant, hence their causal theoretical link is not

stable. Multicollinearity however is not only associated with conceptual abstraction issues. It can significantly increase the standard errors of the affected coefficients which in turn might lead to accepting a false null hypothesis (Type II error). Additionally, in models that suffer from multicollinearity, generalization of the outcomes can be problematic since small variations to the input data may lead to large changes in the model's parameters (Lipovestky, 2001).

AMOS offers a simple method of numerically detecting possible multicollinearity by assigning a value (the squared different connection of every variable) between the variables and helps the researcher quickly recognise the problem. Values above .85 or .9 demonstrate that multicollinearity is a potential threat to the study (Tabachnick and Fidell, 2006). In this thesis, AMOS showed correlations between variables that range between .38 and .78, which are within the acceptable range. There are however, more sophisticated and specialized methods to identify its existence, even in models where the cut-off value is significantly below the AMOS threshold like the present. The two most prominent are the tolerance and variance inflation factor (VIF) tests. Tolerance indicates the amount of variability which is not investigated by the other independent variables of the conceptual model and is measured by the formula $1-R^2$ for all variables. The alternative test, VIF, is in essence the inverse of tolerance and is measured by the formula $(1/\text{tolerance})$. If tolerance is less than .1 and/or VIF is larger than 10, then multicollinearity is present and should be dealt with or discussed (Pallant, 2010; Hair et al., 2010). Table 25 presents tolerance and VIF values for the conceptual model of this study and suggests that multicollinearity between variables is not a potential drawback.

Table 25: Collinearity tests

Variable	Tolerance value	VIF value
OBC identification	.399	3.122
OBC commitment	.821	1.192
Brand Attachment	.182	1.093
Brand Trust	.216	2.880
Brand Identification	.406	2.565
Brand Commitment	.788	1.129
Oppositional Brand Loyalty	.724	5.222
WOM	.284	3.025
Willingness to pay a price premium	.763	4.111

5.4 Reliability and validity

5.4.1 Reliability

As discussed in section 4.4.3, this thesis evaluates the reliability of its conceptual model's constructs calculating Cronbach's alpha for each of them, using IBM SPSS. Table 26 shows the α values for all nine constructs and confirms that they exceed the rigorous predetermined threshold of .7 suggested by Nunnally (1978).

Composite reliability (CR) index is a measure of the overall reliability of a collection of heterogeneous but similar items. It produces more precise estimates of reliability than those provided by (α). Composite reliability was calculated individually for all nine constructs using the formula below:

$$CR = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + (\sum \epsilon_i)}$$

CR is the sum of the loadings of all items of a construct squared, divided by the same number plus the sum of all error variances of each item. Table 26 reveals that all CR values were found to be greater than the recommended value of .6 (Bagozzi and Yi, 1988), or .7 (Bagozzi and Burnkrant, 1985) making the constructs reliable.

5.4.2 Convergent validity

Calculation of average variance extracted (AVE) for the variables was more problematic than CR. AVE is a method that evaluates the convergent validity (and often discriminant validity) of a given construct (Fornell and Larcker, 1981) and is calculated using a simple formula adding the square roots of all factor loadings of a construct and dividing the result by the number of items that the variable is constituted of. Evidently, the value of factor loadings in such a formula is detrimental and higher loadings produce larger values of AVE. This is reflected in table 26, where constructs containing items with low factor loadings produced AVEs below the threshold of .5 (Bagozzi and Yi, 1988). Low AVE values are a matter of concern since low convergent validity implies that a construct's measures (items) are not sufficiently related to one another. Dealing with this problem usually involves the removal of the items with very low loadings.

5.4.3 Discriminant validity

Discriminant validity was tested by comparing the square roots of AVEs with the off-diagonal construct correlations (table 27). Some of the items presenting low factor loadings produced low values of AVEs which in turn violated the Fornell-Larker criterion of discriminant validity in six cases. It would be risky to leave this issue untreated since it could imply that several items measure a similar construct. Removal of the items exhibiting very low loadings was, once again, a priority.

5.5 Measurement model

This section discusses and scrutinizes the results of SEM used to analyse the collected data. Although an absolute criterion of doing so does not exist, this thesis adopts a two-stage method recommended by Anderson and Gerbing (1998). The first stage involves specification of the causal relationships between the observed variables and their underlying constructs. The measurement model is tested using CFA performed in AMOS 23. The second stage of the analysis includes the structural model: the causal relationships between the explanatory and the response variables. The path diagram will be discussed here to identify if, or to what extent, the hypotheses of this thesis' model are confirmed. OBC identification represents the X variable-(independent/exogenous), while OBC commitment, brand attachment, brand identification, brand commitment, brand trust, oppositional brand loyalty, willingness to pay a price premium and Word-Of-Mouth the Y variables (dependent/endogenous).

5.5.1 Phase one

The first stage of SEM is the measurement of each item's unidimensionality, while the second one assesses the reliability and validity of the constructs. The observed variables, or the measurement items, represent those variables that have been measured with the use of a questionnaire and their sum composes an unobserved, or latent variable. CFA is used to identify whether these items indeed correspond, or describe a latent variable by comparing them to a fixed, 'perfect' model. Arbuckle (2005) describes the measurement model as "the portion of the model that specifies how the observed variables depend on the unobserved, composite, or latent variables". A perfect conformity between the ideal and the proposed model is not to be expected, a good model fit however will not significantly deviate from it. The measurement model in quantitative social research is primarily used to stipulate each of the items' loadings onto their unobserved variables (Byrne, 1989). In other words, it is a tool that helps the researcher identify whether his or her measurement items actually measure the study's constructs. If deviations from the pre-specified 'perfect' model are significant,

then the structural model should be re-designed and reanalysed (Anderson and Gerbing, 1988; Bollen, 1989; Hair et al., 1995; Tabachnick and Fidell, 2001; Kline, 2005; Holmes-Smith et al., 2006). This thesis' latent variables have been conjunctly analysed in a single model. Although some researchers prefer to perform SEM for each of the model's constructs separately, this method could potentially provide higher loadings for each item than if all constructs are modelled simultaneously leading to a "fictitious good" model fit (Aimran, Ahmad, Afthanorhan and Awang, 2017). Therefore, this thesis adopts a pooled-CFA method for all constructs.

5.5.1.1 Assessment of unidimensionality

CFA's principal use is to identify constraints or remove any problematic items which reduce the fit of a proposed model (Nazim and Ahmad, 2013). Standardized factor loadings are the main method for identifying items that are redundant. As discussed in section 4.6.2.4.1.2.2, redundant items in this thesis are those with a value lower than .6. Indeed, Aimran et al. (2017) suggest that .6 should be the cut-off value for existing items, while .5 for newly developed ones. Factor loadings are not necessary to be calculated manually since SEM packages can calculate them automatically. Achieving unidimensionality requires items with very low loadings to be dropped. The process of achieving unidimensionality involves the deletion of one item at a time starting with the one with the lowest loading and re-running the measurement model. This procedure, in this case, did not improve the fit of the model until all redundant items were deleted.

Having multiple items for each construct is an effective way to remove the ones that do not adequately measure it without affecting its soundness. Several scholars suggest the use of more than one item per construct (Anderson and Gerbing, 1982; Hair et al., 1995; Kline, 2005). The ideal number of items per construct is debatable with some researchers suggesting anything over one (Crosby et al., 1990) should be accepted, while others increase this number to three (Kline, 2005; Bentler and Chou, 1987). In any case, one item is considered inadequate to flawlessly measure a construct and lead to unambiguous results (Crosby et al., 1990). In this thesis, pre-validated item scales with several items have been chosen to allow for removal of redundant ones as suggested by Hair (1995), Jöreskog and Sörbom (1996), Schumacher and Lomax (2010), Arbuckle (2005), Kline (2005) and Holmes-Smith et al. (2006).

Very closely related to unidimensionality and heavy determinants of the model fit are the normalized residual and modification indices. Standardized residuals, usually referred to as normal residuals, describe the variance between observed correlation and correlation matrix (Schumacher and Lomax, 2010; Holmes-Smith et al., 2006). They measure the observed frequency of a particular

count and compare it with the count's expected frequency. Standardized residuals show, or measure, the strength of the difference between actual (observed) and expected values. The accepted values range between -2.58 and +2.58 (Hair et al., 1995). For normally distributed data, as in the present thesis, these residuals are not expected to deviate from the aforementioned range. Modification indices on the other hand show discrepancies between the proposed and the estimated models and are much more likely to be larger than the recommended value of 3.84 (Holmes-Smith et al., 2006) even in cases where the data is normally distributed. In this first stage of data analysis, residual and modification indices were not considered since removing redundant items was the priority as the presence of these items would necessarily mean very high modification indices. These indices are primarily used to show if the hypothesized relationships between a construct's items are logical and whether their sum produces a conceptually accurate construct. Calculating these indices then evaluates a theoretical model not only from a statistical point of view but also from a theoretical one (Anderson and Gerbing, 1988; Hair et al., 1995). Furthermore, detection of inappropriate indices does not only considerably improve the model fit but also makes it much more conceptually meaningful and insightful (Jöreskog, 1993). Dealing with such bad indices however should be approached with caution. Covarying errors with variables or with errors for items belonging to different variables for example is statistically wrong. Covarying errors of items within a single variable is generally acceptable but other methods, such as removal of the problematic items, shall be considered first (Kenny, 2011). Inspection of normalized residual and modification indices in this thesis takes place in the second phase of stage 1 of SEM analysis.

As discussed previously, unidimensionality is also evident if estimated correlations between the model's constructs do not exceed .85 (Kline, 2005). AMOS showed the highest correlation value of .78 (brand attachment <-> brand commitment), indicating unidimensionality (and discriminant validity).

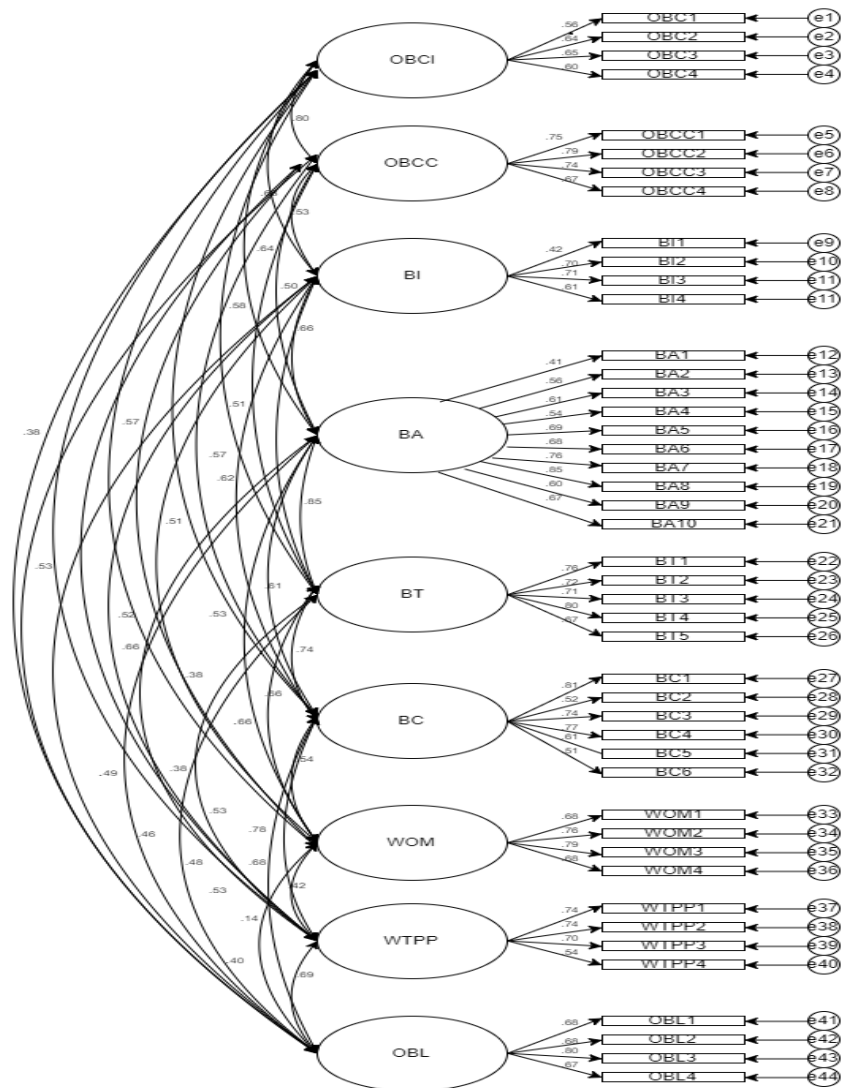
5.5.1.2 Construct validity

CFA was employed in this thesis to assess construct validity. It should be stated that EFA is often used to assess the degree to which a construct measures what it claims, or purports, to be measuring. There are however fundamental differences between CFA and EFA that render the use of the latter unessential here. EFA is primarily used in building theory or structuring factors when a model has not already been constructed (Child, 1990). It assumes that factors can load freely and that errors are not correlated (Hoyle, 1995). On the other hand, CFA, *a priori* requires a conceptual model with a fixed number of factors, constrained factor loadings and predetermined number of

items that load on each factor (Kline, 1998). In other words, CFA is principally a tool for theory-testing while EFA for theory-building.

A first-round CFA revealed mixed outcomes concerning the fit of the conceptual model. Although several GOF (goodness-of-fit) indices were within the acceptable range, others were suboptimal. For example, CMIN/df and GFI were optimal, while RMSEA and SRMR were very good, as expected with large sample sizes (Barrett, 2007). Other indices however, such as AGFI, CFI, NFI and TLI were well below the value that they were supposed to be, calling for improvement of the model fit. PCLOSE was significant, meaning that the model fit was worse than close fitting (Kenny, Kaniskan and McCoach, 2014). The P-value was also significant, indicating a poor fit. With samples larger than 250 however it is highly unlikely that this P value will ever be insignificant (Bentler and Bonett, 1980; Lowry and Gaskin, 2014).

Figure 4: Phase 1 CFA



5.5.2 Phase two

The first step in improving the fit of the model was to remove all items with low factor loadings that were responsible for low AVEs and consequently suboptimal validity of the constructs which, in turn produced a number of inadequate fit indices. As discussed and shown in table 26, items with factor loadings lower than .6 were straightforwardly deleted and AVEs and CRs were recalculated. CFA on AMOS was followed.

5.5.2.1 Reliability

Reliability of the model was recalculated examining Cronbach's alpha and CR for all constructs. All alphas were higher than .7 supporting the model's reliability. Results however showed that deletion of further items could potentially be challenging since many of them were crucial for the constructs' reliability and their dropping could reduce their alpha value. CRs are shown on table 26, all of them are larger than .6 thus providing further reliability confirmation, which was expected since their values were acceptable even in the first measurement model.

5.5.2.2 Convergent validity

The removal of eight items with significantly low loadings increased, as predicted, both the loadings of the remaining factors and the value of their constructs' AVEs. All but one (BI) were above the recommended value of .5 confirming the relatedness between the items. Removal of another item of the construct would only leave it with two items therefore no further changes were made in order to avoid the model losing its plausibility.

5.5.2.3 Discriminant validity

As in the first phase of data analysis, discriminant validity was tested by comparing the square roots of AVEs with the off-diagonal construct correlations (table 27). Although the instances where the Fornell-Larker criterion of discriminant validity is not satisfied were halved from phase 1, there were still three cases (BA <-> BC, BT <-> BC, WTPP <- BC) which needed to be improved in the third phase of data analysis.

5.5.2.4 Assessment of unidimensionality

Dropping eight items significantly increased AVEs and CRs which in turn provided higher factor loadings for the remainder of the items and improved fit indices. At this second phase of data

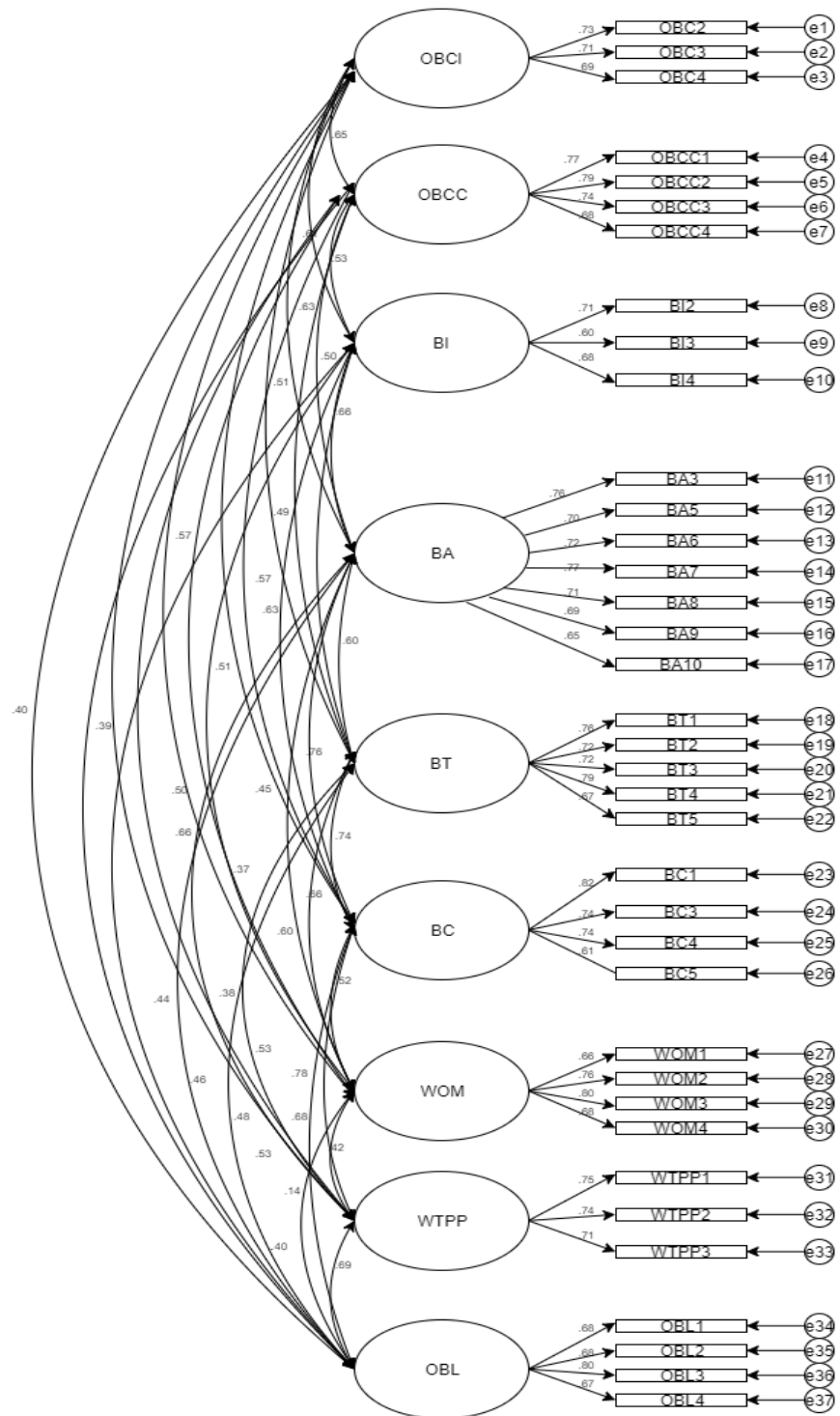
analysis, no redundant items existed (items with loadings lower than .6), validating that all items were unique.

Although there was no redundancy at this stage, the model fit still required some improvement. As discussed, a closer look at the residual and modification indices could significantly improve the model. Residuals were within the acceptable range of ± 2.58 since the data is normally distributed. Modification indices on the other hand suggested that some values were worrisome. There was a very high correlation (23.556) between the standardized errors of 'BT1' and 'BT4' and 'BT3' and 'BT4'. The same was true for the errors of 'BC1' and 'BC5' (18.982) as well as for 'WOM2' and 'WOM3' (19.412) and 'BCC1' and 'BBC4' (12.209). A high correlation was also observed between the errors of 'BI1' and 'OBL4' (22.852) but since the items measure different variables, dealing with this issue would be impossible without collecting the responses from the beginning. In contrast, treating high modification indices within the same factors was necessary to improve the fit of the model. The most common method for treating this problem is to covary the errors on the same latent variables. Although statistically correct, accepting and covarying highly correlated errors would simply mean that the items measure a very similar thing. Indeed, Monroe and Cai (2005) posit that highly correlated errors are often a result of unidentified or wrongly defined, or measured items. Shook, Ketchen, Hult and Kacmar (2004) also recommend not covarying measurement errors and identify it as a measure of last resort. In the case of brand trust, the items exhibiting large modification indices do indeed measure related concepts (such as honesty and confidence) but it would be illogical to consider them identical. While brand confidence and brand honesty for example are both measures of brand trust, they are two distinct marketing concepts (Sasmita and Mohd Suki, 2015). The same is true for the rest of the strongly related items. Therefore, the present thesis opted for Awang's (2012) recommendation to only keep the items with the highest factor loading when correlations between the errors of two or more measurement items were high. Table 26 shows the items that have been discarded during this second stage of the measurement model.

5.5.2.5 Construct validity

Second phase CFA (table 26) provided a much better fit for the model with most indices having improved (CMIN/df, GFI, AGFI, NFI, TLI, RMSEA and SRMR), while GFI passed the threshold of .9 and was therefore accepted. Three of the fit indices however (AGFI, TLI and CFI) were still below their cut-off values, thus the model required further improvement. PCLOSE had almost become insignificant (.048), meaning that the fitting of the model was nearly 'close'.

Figure 5: Phase 2 CFA



5.5.3 Phase three

The third phase of the measurement model provided the following results which suggested a model fit adequate for path analysis.

Table 26: Results of CFA

Constructs/Items	Cronbach's alpha (α)			CR (Composite Reliability)			AVE (Average Variance Extracted)			Factor loading		
	Phases											
	1	2	3	1	2	3	1	2	3	1	2	3
OBCI	.701	.72	.72	.706	.753	.753	.54	.504	.504	.56**		
➤ OBCI1										.64	.73	.73
➤ OBCI2										.65	.71	.71
➤ OBCI3										.6	.69	.69
➤ OBCI4												
OBCC	.826	.826	.8	.827	.834	.804	.546	.557	.578			
➤ OBCC1										.75	.77	.77
➤ OBCC2										.79	.79	.79
➤ OBCC3										.74	.74	.72
➤ OBCC4										.67	.68	
BI	.799	.791	.791	.699	.702	.702	.428*	.442*	.442*			
➤ BI1										.42**		
➤ BI2										.7	.71	.71
➤ BI3										.71	.6	.6
➤ BI4										.61	.68	.68
BA	.859	.896	.896	.874	.879	.879	.475*	.512	.512			
➤ BA1										.41**		
➤ BA2										.56**		
➤ BA3										.61	.76	.76
➤ BA4										.54**		
➤ BA5										.69	.7	.7
➤ BA6										.68	.72	.72
➤ BA7										.76	.77	.77
➤ BA8										.85	.71	.71
➤ BA9										.6	.69	.69
➤ BA10										.67	.65	.65
BT	.847	.847	.802	.852	.852	.754	.538	.537	.507			
➤ BT1										.76	.76	
➤ BT2										.72	.72	.78
➤ BT3										.71	.72	
➤ BT4										.8	.79	.71
➤ BT5										.67	.67	.64
BC	.82	.852	.786	.827	.819	.817	.445*	.524	.589			
➤ BC1										.81	.82	.82
➤ BC2										.52**		
➤ BC3										.74	.74	.74
➤ BC4										.77	.74	.74
➤ BC5										.61	.61	
➤ BC6										.51**		
WOM	.815	.815	.747	.818	.817	.758	.531	.583	.513			
➤ WOM1										.68	.66	.63
➤ WOM2										.76	.76	
➤ WOM3										.79	.8	.8
➤ WOM4										.68	.68	.71
WTPP	.775	.773	.773	.777	.777	.777	.496*	.54	.54			
➤ WTPP1										.74	.75	.75
➤ WTPP2										.74	.74	.74
➤ WTPP3										.7	.71	.71
➤ WTPP4										.54**		
OBL	.798	.798	.798	.801	.801	.801	.503	.503	.503			
➤ OBL1										.68	.68	.68
➤ OBL2										.68	.68	.68
➤ OBL3										.8	.8	.8
➤ OBL4										.67	.67	.67

* Value is below the accepted threshold of .5, **factor loading is below the .6 threshold

5.5.3.1 Reliability and validity

All alphas are larger than .7 and CRs than .6, deeming the data reliable. All AVEs but one (BI) are larger than .5, confirming the model's convergent validity. Average Variance Extracted (AVE) should be higher than .5 for all constructs but a value larger than .4 can be accepted provided that composite reliability is higher than .7. In this case, convergent validity of the construct is still adequate (Fornell and Larcker, 1981). Finally, the removal of an additional five items significantly improved convergent validity but still one correlation (BA <-> BC) is larger than it should be according to Fornell and Larcker (1981). Therefore, an additional test proposed by Bagozzi (1994) was performed to confirm the constructs' non-relatedness. 95% confidence intervals of the correlations among constructs were calculated and none of them included 1, hence discriminant validity assumption is supported.

Table 27: Assessment of discriminant validity

Construct	OBCI	OBCC	BI	BA	BT	BC	WOM	WTPP	OBL
Phase 1									
OBCI	.734								
OBCC	.808*	.738							
BI	.677	.532	.654						
BA	.579	.636	.656*	.689					
BT	.505	.569	.496	.846*	.733				
BC	.511	.534	.622	.691*	.742*	.67			
WOM	.523	.572	.377	.657	.663	.543	.728		
WTPP	.528	.534	.481	.664	.525	.779*	.421	.704	
OBL	.383	.391	.456	.494	.379	.678*	.14	.688	.709
Phase 2									
OBCI	.709								
OBCC	.652	.736							
BI	.613	.527	.664						
BA	.509	.625	.655	.715					
BT	.491	.57	.486	.595	.732				
BC	.458	.525	.629	.757*	.74*	.723			
WOM	.499	.571	.367	.595	.664	.517	.736		
WTPP	.478	.53	.443	.692	.527	.772*	.419	.734	
OBL	.397	.392	.466	.52	.38	.653	.14	.687	.709
Phase 3									
OBCI	.709								
OBCC	.652	.76							
BI	.613	.499	.664						
BA	.509	.601	.656	.715					
BT	.478	.545	.449	.499	.754				
BC	.462	.512	.629	.718*	.694	.767			
WOM	.516	.621	.38	.59	.656	.531	.716		
WTPP	.478	.518	.443	.692	.621	.767	.407	.734	
OBL	.397	.363	.465	.521	.486	.635	.138	.687	.709

* Violation of the Fornell-Larcker criterion

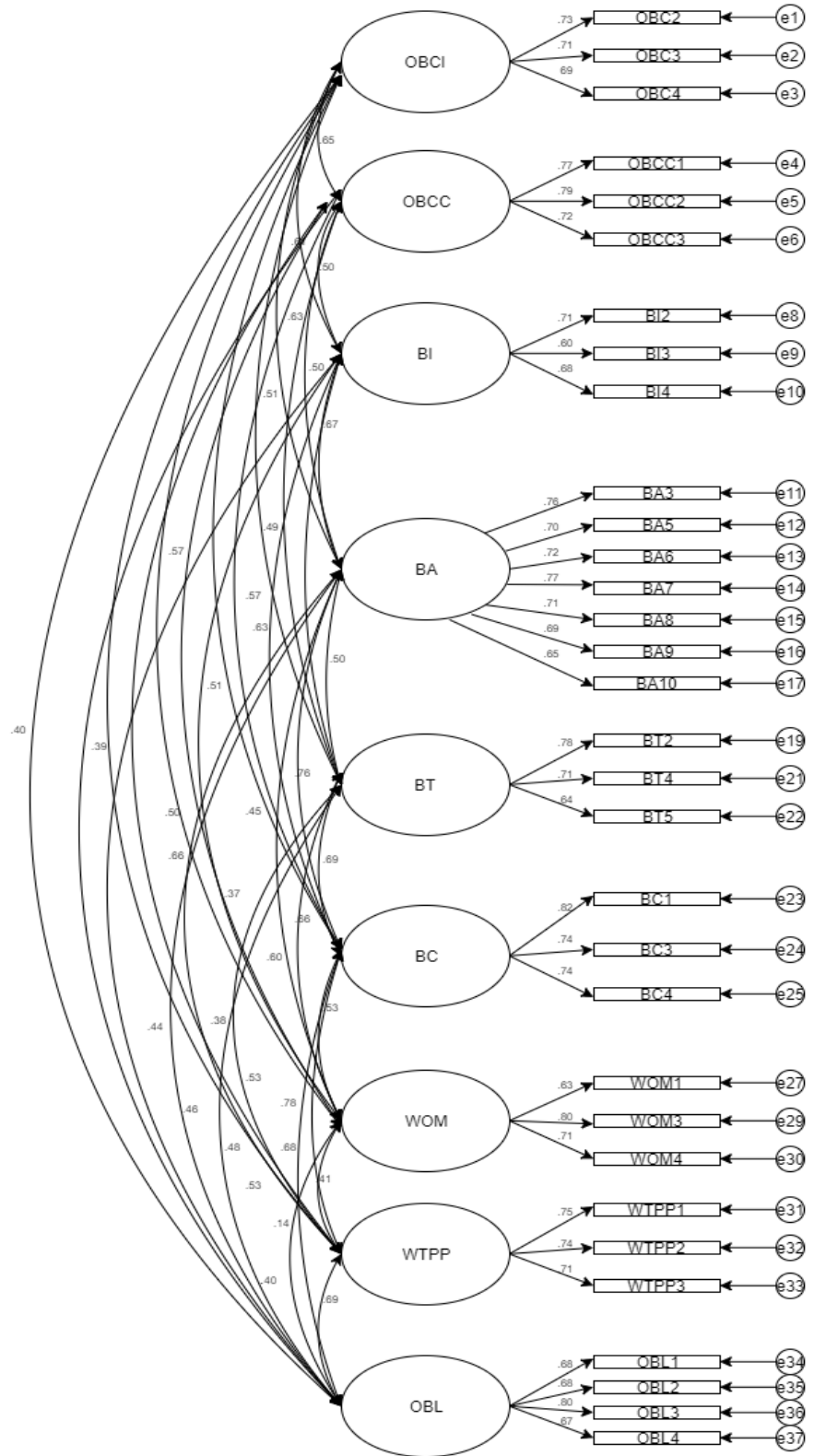
5.5.3.2 Construct validity

Improving the model's fit resulted in acceptable fit indices as presented in table 26. PCLOSE has become significant (.563), indicating a good model fit.

Table 28: CFA fit indices

Index	Value	Acceptance
<i>Phase 1</i>		
CMIN/df	2.199	✓
CFI	.899	Borderline (X)
GFI	.91	✓
AGFI	.86	X
NFI	.81	X
TLI	.83	X
RMSEA	.063	✓
SRMR	.048	✓
<i>Phase 2</i>		
CMIN/df	1.919	✓
CFI	.899	Borderline (X)
GFI	.919	✓
AGFI	.897	X
NFI	.944	✓
TLI	.886	X
RMSEA	.055	✓
SRMR	.043	✓
<i>Phase 3</i>		
CMIN/df	1.743	✓
CFI	.927	✓
GFI	.939	✓
AGFI	.902	✓
NFI	.933	✓
TLI	.915	✓
RMSEA	.049	✓
SRMR	.042	✓

Figure 6: Phase 3 CFA



5.6 Structural model

The next logical step in social research after CFA has provided acceptable model fit, is to statistically test the proposed structural model and its underlying hypotheses (Homles-Smith et al., 2006). CFA is mostly concerned with the interactions between all variables and items, while the structural model defines the percentage, or the portion, of which latent variables are related to one another (Arbuckle, 2005). The structural model shows the degree to which one latent variable's existence influences one or more other latent variables directly or indirectly (Byrne, 1989). This second stage of data analysis in this thesis is primarily concerned with testing the 12 (plus the two that are followed) hypotheses outlined in Chapter Three. These 14 causal paths were tested using AMOS 23, this time not by drawing covariances between the latent variables but by adding residual errors to the endogenous ones and examining the paths between them.

5.6.1 Hypotheses testing

At this stage the structural, instead of the hypothesized model is subject to goodness-of-fit indices and usually a satisfactory model fit is to be expected after CFA. If many fit indices are below their cut-off values then the structural model is either conceptually lacking and requires re-specification based on theory, or the collected data fails to support it (Hair et al., 1995, Tabachnick and Fidell, 2001). It is very common in SEM to not only take into account the overall fit of the model, but to also calculate and examine the coefficient parameter estimates in hypothesis testing. They are calculated by dividing the variance estimates by their standard error (SE). This calculation delivers a critical ratio (CR), usually referred to as z value not to be confused with composite reliability, which provides a statistically significant value for a standardized estimate when it is greater than 1.96. This regression tool is very useful in identifying when the regression weights are not significantly different from zero (at the .05 level), rejecting the null hypothesis and hence the hypothesized causal relationship between two variables (Tabachnick and Fidell, 2001). Z values are necessarily a confirmation of the path estimates providing theoretical justification for accepting or rejecting the proposed hypotheses. These path estimates (or standardized regression beta weights) provide statistical strength to the theoretical assumptions the researcher has made and are represented via the single-headed arrows as in figure 7.

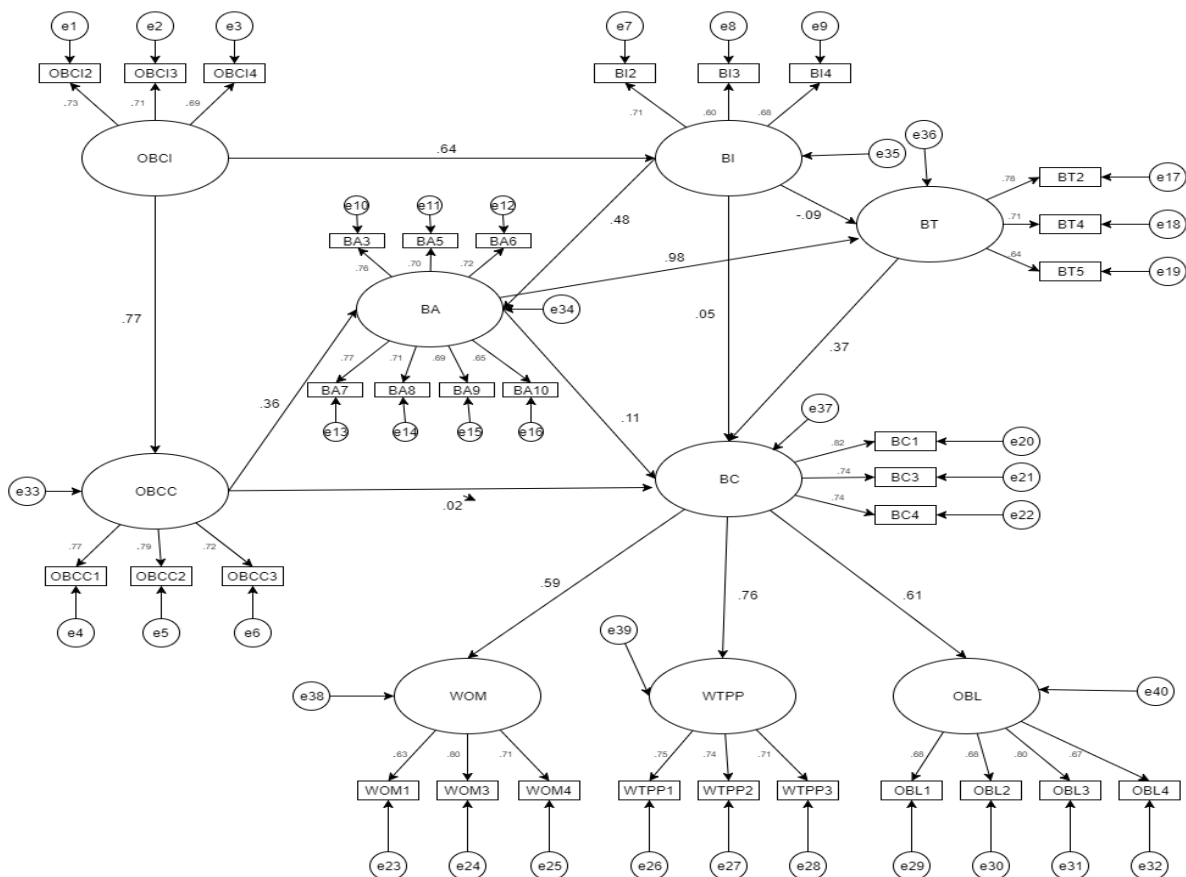
5.6.2 The structural model

The 14 hypotheses were tested through combining all latent variables and their corresponding items into a single structural model. Only one exogenous (completely independent from the others)

variable exists, consequently there is no need to covary any of the model's unobserved variables. One of SEM's basic assumptions however is the designation of residual error values to the endogenous variables resulting from random or uncalculated errors or stimuli that have not been adequately modelled, as otherwise the provided results are likely to be erroneous (Kline, 2005). Figure 7 depicts the SEM performed where single-headed arrows designate a causal relationship between two variables, endogenous constructs are those that have at least one single-headed arrow pointing at them and the absence of arrows is a suggestion that two constructs are not conceptually linked.

The structural model indicates a good model fit ($N=306$, $CMIN/df=1.745$, $CFI=.923$, $GFI=.909$, $AGFI=.887$, $TLI=.914$, $NFI=.902$, $RMSEA=.049$, $SRMR=.044$ and $PCLOSE=.56$). The P value of the model is significant but as discussed, in models with large population samples this is to be expected. All but two core hypotheses are firmly confirmed. Standardized estimates for 10 hypotheses are significant (table 27), providing statistical adequacy to the hypothesized relationships. Hypotheses H4 and H7 (OBC commitment is positively associated with brand commitment and brand identification increases brand trust) however exhibit very low estimates and therefore cannot be accepted.

Figure 7: Structural Model



5.6.3 Dealing with the two rejected hypotheses

A second phase of analysis of the structural model would be necessary in theory-building research since not all paths have been confirmed to be statistically and rationally significant. Re-specifying the model involves removal of the paths that are non-significant in order to allow the most parsimonious model to be defined (Shammout et al., 2007). From a theoretical viewpoint, two paths should be deleted here (OBCC → BC and BI → BT). Deleting both paths at once however would be incorrect since dropping one at a time might, in some cases, provide more adequate modification indices and structural coefficients and return a better model where the rest of the paths would be confirmed (Holmes-Smith et al., 2006). The path to be selected for deletion first would be H7 because its standardized estimated value was lower (-.09). Nevertheless, the current study is heavily deductive not aiming at creating new theory or preceded by qualitative research techniques. Therefore, removal of paths that have previously been confirmed by other researchers would be reckless.

5.6.4 Hypotheses testing outcomes

14 hypotheses have been tested using SEM. 12 of them were the core hypotheses resulting from the thesis' conceptual model while the remaining two were logically derived from it. Hypotheses H1 to H8 refer to the customer-brand relationships that are being developed within the realm and activities of an OBC. All but two (H4 and H7) are confirmed, showing that OBCs are indeed platforms that brands can utilize to build sustained and robust relationships with their customers. Hypothesis H9 provides solid confirmation of the commitment-trust theory (Morgan and Hunt, 1994) of relationship marketing by empirically proving that customers who trust a brand are very likely to commit to purchasing it as well. The three remaining hypotheses confirm that committed customers will translate their commitment to brand equity-related behaviours such as WOM activities, willingness to pay more for their favourite brand and opposition to competing ones. A detailed analysis of these results will be given in the next chapter.

5.7 Additional hypotheses

Testing of the two additional hypotheses discussed in section 3.3.5 requires identifying whether brand attachment mediates the relationships between OBC commitment and brand commitment and between brand identification and brand commitment. It is then important to explore whether brand attachment plays an important role in the formation of brand commitment. Mediation in SEM is not a straightforward process (Byrne, 2001) and is often a matter of debate and disagreement

(Rucker, Preacher, Tormala and Petty, 2011) with over 14 available methods to researchers (MacKinnon, Fairchild and Fritz, 2007). The choice of an appropriate and reliable method to identify the mediating effects of a variable is therefore imperative. Despite the abundance of the available approaches, MacKinnon, Taborga and Morgan-Lopez (2002b) found that most of them are inaccurate and that three of them are mostly widely used: The Baron and Kenny (1986), the Sobel test (Sobel, 1982) and bootstrapping (Bollen and Stine, 1990).

The traditional Sobel test, also referred to as the 'delta method' and which was used often in the nineteen eighties, uses standard errors and is accurate only for independent (i.e. a and b) paths (Kenny and Judd, 2014). This means that although it could be useful in multiple regression when data is also normally distributed, its power would be extremely limited in SEM where paths are dependent.

Baron and Kenny (1986) proposed a four-step method to examine mediation. The first step hypothesizes a correlation between the initial and the outcome variables. The second step tests the correlation between the initial variable and the mediator. The next step attests the correlation between the mediator and the outcome variable while the fourth and final step establishes a complete mediation across all variables. Although this method has been widely used in social research, it does not come without significant criticism. Rucker et al. (2011) suggest that the method assumes a significant relationship between variables X and Z (the initial and outcome variables). This is because it is presumed that an indirect effect between the two variables does not exist and there is not an effect to be mediated. MacKinnon, Lockwood, Hoffman, West and Sheets (2002a) further conducted a simulation study which proved that the assumption of a significant relationship between the variables "severely reduces the power to detect mediation, especially in the case of complete mediation". Simply put, the larger the size of the direct effect, the more possible it is for the mediation to be significant. Fritz and MacKinnon (2007) found the fact that a relation between X and Y as a prerequisite problematic, deeming the method out-dated. Finally, from a theoretical viewpoint, Imali and Keele (2010) support that a pre-hypothesized relationship between two variables does not offer the chance for generalizability of the statistical analysis outside of a specific model. Furthermore, they suggest that smaller samples are much more likely to produce full mediating effects. The method has many preconditions that consider mediation present or absent instead of being continuous and was decided to be used as a secondary, confirmatory method of testing mediation in the model. Testing the mediating effects of brand attachment using this method would involve a two-stage hierarchical model. In the first one the variable would not be present, but would be added in the second. If the relationship between the two variables was altered with the presence of the mediator, then this alteration should be presented and discussed.

Bootstrapping is becoming increasingly popular in testing mediation effects (Shrout and Bolger, 2002; Cheung and Lau, 2008; MacKinnon, 2008). Bootstrapping is mainly the resampling (as many as 5000 times) of the sample distribution, which acts as the original sample of the study and calculating the means. This non-parametric method allows the indirect effect to be calculated for all the samples and empirically generate a sample distribution (Kenny, Korchmaros and Bolger, 2003). Hayes and Scharkow (2013) generally recommend a percentile bootstrap to reduce the risk of Type I error. Fritz, Taylor and MacKinnon (2012) point out that bootstrapping has become the method of choice in linear SEM and it is used in this thesis as well. Bootstrapping was conducted on AMOS 23 in the following manner: The 'indirect, direct and total effects' under output tab was selected. The 'number of bootstrap samples' was set to the maximum (5000) and the confidence intervals to 95%. The 'Bootstrap ML' option was selected as well. Looking at the bias-corrected percentile, the indirect effect of OBCC on BC was .11 (95% CI: .103 ~ .309) and the indirect effect of BI on BC was .27 (95% CI: .021 ~ .12), supporting BA's mediation effect and hypotheses H5c and H6b.

To further prove that bootstrapping outcomes are correct, the model was run on AMOS 23 without the presence of brand attachment (mediator). The relationship between OBCC and BC becomes significant (.15) and between BI and BC increases to .11 revealing that brand attachment plays the role of a full mediator and to a very large extent explains the process by which OBCC influences BC (Rucker et al., 2011). This was anticipated since BA is a multi-item variable which covers a large array of RM aspects. Conversely, the direct relationship between BI and BC is significant but decreases considerably with the presence of BA. Therefore, BA only partially mediates the relationship between these two variables hence other indirect effects (variables) probably exist and should be identified and examined in future studies (Rucker et al., 2011). Generally, the mode of mediation (full or partial) specifies how important the mediating variable is to the total effect (Preacher and Kelley, 2011). Here, brand attachment seems to be playing a pivotal role in explaining how brand commitment is generated through OBC commitment, while it only partially explains its generation through brand identification.

Table 29: Standardized estimates and hypotheses testing

Hypothesis	SE	Z values	Hypothesis confirmation
H1: OBCI → OBCC	.77	3.78**	Yes
H2: BI → BC	.05	2.97**	Yes
H3: OBCI → BI	.64	1.65*	Yes
H4: OBCC → BC	.02	.33	No
H5a: OBCC → BA	.36	2.21*	Yes
H5b: BA → BC	.11	3.89*	Yes
H6: BI → BA	.48	2.13**	Yes
H7: BI → BT	-.09	-.72	No
H8: BA → BT	.98	4.43**	Yes
H9: BT → BC	.37	3.18**	Yes
H10: BC → OBL	.61	1.76**	Yes
H11: BC → WOM	.59	4.01*	Yes
H12: BC → WTPP	.76	2.58*	Yes

* p<0.05, ** p< 0.01 (two-tailed test)

5.8 Conclusions

Coding, editing and screening of the collected data preceded substantial analysis, performed mainly using SEM. Screening in particular is crucial prior to SEM as missing data and violations of normality threaten the accuracy of the analysis' outcomes. A total of 306 questionnaires have been used representing a population whose demographic characteristics and their potential influence have been described.

SEM was divided into two parts: the measurement model which tests the fit of the collected data for statistical analysis and the structural model which is the testing of the actual proposed structural model. One of the main aims of the first part is to assess unidimensionality and to identify whether goodness-of-fit indices are within the acceptable range. CFA is also the main tool to identify and remove redundant items with factor loadings lower than .6. The goodness-of-fit indices that were

calculated were CMIN/df, CFI, GFI, AGFI, NFI, TLI, RMSEA and SRMR. Finally, estimated correlations between factors were also calculated to avoid multicollinearity. A first-round CFA revealed a model fit which required improvement as several items did not load highly on their corresponding factors and some GOFs were consequently outside their desirable range. As a result, eight items were removed to improve the fit of the model. Since a few GOFs were still too low (GFI, AGFI, CFI) however, an additional five items were dropped. This provided a good fit to the data since the vast majority of factor loadings, Cronbach's alphas, CRs and AVEs, as well as the goodness-of-fit indices, were adequate. Convergent, construct and discriminant validity tests were also used to confirm that all constructs are valid and adequate for path analysis.

The structural model's 12 (plus the 2 additional) paths were tested using AMOS 23 and two of the hypothesized relationships were not found to be significant (hypotheses H4 and H7). The structural model showed a good fit to the data with all GOFs being within the acceptable range. The method of bootstrapping was used to test hypotheses H5c and H6b and both were supported. It is noteworthy that brand attachment plays a fully mediating role in the relationship between OBCC and BC but only a partial one in the relationship between BI and BC.

Chapter Six delivers a critical discussion on the outcomes of the analysis, as well as a deliberation on their theoretical and practical uses and suggestions for future research.

6.0 Discussion

“Logical reasoning is an argument which we have with ourselves and which reproduces internally the features of a real argument.”

Jean Piaget

6.1 Introduction

In the previous chapter, the conceptual model of this study was quantitatively tested. The results suggest that OBCs are primary vehicles to build customer-brand relationships which not only result in positive feelings towards the OBC by the consumers but also lead to financial gains for the brand. Although the results of data analysis were presented in Chapter Five, a more detailed interpretation and discussion is delivered here. More precisely, the discussion chapter aims to interpret findings based on the objectives of the thesis (section 1.4) in order to answer its two main questions presented in Chapter One.

This chapter is divided into six sections. Its main body begins with a discussion of the tested hypotheses (section 6.2), while it also enhances its scope by employing them to answer the thesis' main questions. The study's theoretical and practical contributions are discussed in sections 6.3 and 6.4 and its limitations in section 6.5. Section 6.6 finalises this chapter by drawing the discussion's conclusions.

6.2 Summary of the results

This thesis has developed a theoretical model to identify the behavioural aspects of OBC participation as a consequence of the attitudinal ones. To do so, it utilized the social identification theory which takes into account the mechanisms, including the intermediate ones that contribute to relationship-building between customers and brands in OBCs. In addition to the theoretical insights it delivers, it also employs the commitment-trust theory in a novel fashion (online) to explore whether these produced relationships can impact a brand's indirect profitability. The theoretical model has been tested using SEM and the results largely support its main hypothesized relationships with 10 out of the 12 being confirmed. In general, it has been found that participation in an OBC, conceptualized as OBC identification and OBC commitment directly, or indirectly, generates brand identification, brand trust and brand commitment which in turn are positively related to three behavioural marketing constructs: willingness to pay a price premium, WOM and oppositional brand loyalty. From a theoretical perspective, it is found that brand attachment plays a pivotal role in the generation of solid customer-brand bonds and that it fully mediates the relationship between OBC

commitment and brand commitment, while partially mediates the one between brand identification and brand commitment. Simply put, it is identified as a key antecedent of brand commitment in the OBC context. No significant relationship was found between OBC commitment and brand commitment and between brand identification and brand trust.

6.2.1 OBC-related hypotheses

H1 (OBC identification → OBC commitment) was strongly supported ($SE=.77$, $z= 3.78$), implying that identifying with an object (an OBC in this case) has strong potential to shape people's attitudes towards that object (Bhattacharya and Sen, 2003). Outside the online marketing context, these results are consistent with social identification and social influence theories (Haumann et al., 2014), according to which the sense of belonging, defined as identification, induces individuals to not only derive value from interactions they have with other individuals but also to promote the entity which is hosting them (Ahearne et al., 2005). In business, both organisational and consumer psychology theories are in-line with the findings of this thesis suggesting that consumers that are members of OBCs and are identified with a business-related entity other than the actual firm or the brand, also exhibit positive and beneficial intentions towards it (Gremler and Brown, 1999).

Results of testing H2 (brand identification → brand commitment) contradict Stokburger-Sauer and Teichmann (2014) and Bhattacharya and Sen (2003) who suggest that brand identification is the main antecedent of commitment by identifying a superficially positive relationship among them ($SE=.05$, $z=2.97$). Although their relationship is still significant, their shallow association probably means that customers may identify with aspects of a brand but this does not automatically translate into active support for it. In other words, people may find commonalities between themselves and aspects of a corporate brand but this sense of oneness is not, by itself, strong enough to meaningfully create commitment. The weak causality of brand identification and brand commitment found in this thesis however is not essentially surprising since they still have been recognised as two separate constructs, in agreement with a large body of literature (Wan-Huggins, Riordan and Griffeth, 1998; Riketta, 2005; Fullerton, 2005). Furthermore, there is no assertion that respondents of the questionnaire had been customers of the brands examined for a long time. According to Brown et al. (2005), the process of commitment-building is a lengthy one, hence newly identified customers would not be expected to develop a sense of commitment to the brand immediately.

As far as H3 (OBC identification → brand identification) is concerned, a strong ($SE=.64$) causal effect of community identification on brand identification is observed. As discussed in section 2.4.4, consumers can identify with multiple targets, such as OBCs and brands. The fact that these two

constructs are very strongly related, while distinct, means that many members who are identified with their community learn more about the brand that the community promotes, get more involved with it and perceive it as a part of themselves. Continuous interaction between community members, which is focused on a specific brand, creates a psychological pledge amongst them and the brand. Although this connection is profoundly understudied, the results generally reach an agreement with the current literature. Zhou et al. (2012, p. 892) are among the few that have quantitatively studied this relationship and have posited that

[...] by sharing of brand experiences and values drawn from the brand, a brand community may reinforce consumers' brand cognition and attitude, thus enhancing their identification with the brand [...]

Stokburger-Sauer (2010) has also suggested that intimate community relationships may favour the brand in terms of enhanced customer identification. During discussions concerning the study's survey questions, OBC moderators who met in person with the researcher pointed out that often, after 'fiery' conversations about the brand and its services, OBC members who were not previously engaged, exhibited positive attitudes towards the supported brands. This is specifically true for brands that rely on their personality, such as Aprilia and Nike in this study.

H4 assumes that OBC commitment is positively related to the generation of customer-brand commitment. This hypothesis however is not confirmed by the results of the statistical analysis ($SE=.02$). This outcome came as a slight surprise because there is evidence of this relationship's significance in the literature. Several researchers (Kim et al., 2008; Algesheimer et al., 2005; Jang et al., 2008; Pournaris and Lee, 2016) for instance, found that committed OBC participation may lead to commitment to the brand that the OBC supports in terms of repeated purchases. Findings of this thesis however oppose this view and advocate that participation in an OBC might generate commitment to its functions and to other members but is not, on its own, sufficient to create equity for the brand in terms of commitment and purchasing attitudes. OBC members can commit to their group but, as will be discussed later, without the breeding of positive emotions towards the focal brand, the brand will not be able to cultivate this commitment for monetary gains. The findings however agree with Zhou et al.'s (2012) observation that OBC commitment alone is probably not enough to provide financial value to the brand. If the brand is faceless, characterless or if its presence in the community is minimal or discreet, then OBC members might be lacking the knowledge or motive to commit to it.

In examining the relationship between OBC commitment and brand attachment (H5a), the findings of this study suggest a significant effect of the former on the latter ($SE=.36$, $z=2.21$). Group identification is therefore positively related to the formation of positive emotions towards an entity

that is supported by the group. While members' commitment to the OBC is not sufficient to create financial value for the brand as already deliberated, bonds with other members that have similar consuming habits, a sense of moral responsibility towards the OBC and a tendency to protect the entity (the brand) that holds a set of valued relationships together, may lead to the development of positive feelings for this entity. It appears that the enduring desire OBC members have to preserve, strengthen and maintain a valued relationship in order to continue enjoying its benefits, stimulates them to become attached to the brand which provides the OBC's central theme. As per Algesheimer et al. (2005), Meyer, Stanley and Herscovitch (2002) and Zhou et al. (2012), a committed OBC member will display emotions of affection, captivation and attachment in general, an observation with which the present thesis coincides.

Confirmation of H5b further highlights the importance of emotions in OBCs. The significant causal effect of brand attachment on brand commitment ($SE=.11$, $z=3.89$) suggests that the positive emotions customers develop towards brands in OBCs can translate into repeated actions such as purchases. Although these two constructs are not enormously associated, statistics propose that to a certain extent, cultivation of positive feelings for a brand in the form of attachment leads to favourable attitudes and behaviours toward it. It is important to declare that the selection of survey items and item wording concerning brand commitment was delivered in such a way that made sure commitment is conceptualized as an outcome of bonding with a brand instead of mere convenience, due to better pricing or lack of alternatives. Therefore, the analysis only explained the brand commitment which was generated by customer-brand attachment. These results accord with Thomson et al. (2005), Lacoueilhe and Belaid (2007), Schmalz and Orth (2012) and Gouteron (2008) who stressed the importance of brand attachment as a core antecedent of brand commitment.

Testing of H6 revealed, as expected from the literature, a strong positive effect of brand identification on brand attachment. As opposed to commitment discussed in H2, attachment represents a softer state which encompasses the development of emotions towards another person or entity. Supporting the social identification theory, this research suggests that people who feel a sense of oneness to a certain entity (a brand), will also start to develop positive emotions such as bonding, connectedness, friendliness and passion towards it. In online marketing, the statistical result obtained here proposes that since a certain brand is enhancing an individual's self-imagery and enrichment, he or she will become more attached to it. This is also consistent with branding theory, according to which most brands in imperfectly competitive markets have their own distinctive characteristics and personality that consumers may identify with (Blackston, 1993). Tzokas and Saren (1997) and De Chernantony and Dall'Olmo Riley (2000) enrich this proposition by

adding that consumers' perceptions of a brand shape their evaluations of its products and services and generate positive emotions (attachment) to it (Veloutsou and Moutinho, 2009).

H7 hypothesizes a positive effect of brand identification on brand trust, a link that the statistical analysis was unable to confirm. This relationship was insignificant ($SE=-.09$, $z=-.72$), meaning that a sense of oneness with a brand is not adequate for a consumer to make him or her rely on the brand's ability to perform and act as promised. Some consumers for example may identify with British Airways' projected ideals of green transportation, fair wages to their employees and the motto of 'customer first' but do not necessarily believe that it can deliver them. Equally, using an example outside this thesis, many people might categorise themselves as admirers of Harley Davidson's 'free spirit' or 'easy rider' ideals but find it hard to have faith in the company's promises to keep prices stable or to provide extensive after-sales support. These research findings oppose some other quantitative studies in the field (Kramer, 1996; Azizi and Kapak, 2013; Kim et al., 2008) which have recognised brand identification as a forerunner of brand trust. A possible explanation of this result could be the fact that the observed OBCs concerned a B2C environment only, where customers have limited direct communication with the brand, or agreements written in contract that would induce them to trust brands more.

Contrarywise, brand attachment has been found to have an extremely high positive influence on brand trust ($SE=.98$). This unusually large causal effect, once again underscores the significance of emotions in customer-brand relationships. Where feelings of brand affection, brand appeal, friendship and love are present, customers are enormously likely to rely on the brand. Much like personal associations, trust requires a sense of security which is very apparent in cognitive relationships. Results are not only in-line with some well-known studies in the field (Thomson, 2006; Diehl, 2009) but also with those that recognise brand attachment as a very strong predictor of brand trust (Dennis et al., 2016; Belaid and Behi, 2011).

The discussion above, in essence, represents the theoretical foundation of this thesis and responds to its first sub-objective:

- *Confirm the mechanisms, including the intermediate ones, that contribute to improved customer-brand relationships within an OBC.*

6.2.2 Additional hypotheses

H6b hypothesizes that brand attachment mediates the effect brand identification has on brand commitment. As discussed previously, this direct relationship ($BI \rightarrow BC$) is significant even with the

presence of brand attachment in the model, although borderline. Removing brand attachment from the equation however, increases BI's effect on BC, marking its mediating importance in this connection. This is in-line with Zhou et al.'s (2012) observation that relationships involve a 'state of mind', or cognitive state. Positive emotions that generate attachment make an object, or an entity, irreplaceable (Thomson et al., 2005), thus creating cognitive states. The customer wishes to preserve a valued relationship with an object or an entity that he or she is attached to, hence engages in behaviours that favour its existence and help it thrive. Brand attachment is a partial mediator in this relationship therefore still confirming H5c, it implies however that other RM constructs could act as potential mediators as well.

Research findings indicate that brand attachment mediates OBC commitment's impact on brand commitment. That is, OBC members need to develop a set of positive emotions for the brand before committing themselves to it. This discovery is important because much of the current literature suggests a close connection between community and brand commitment (Kim et al., 2008; Algesheimer et al., 2005; Jang et al., 2008). Assuming a dogmatic connection between the two however would be problematic as, according to this thesis' statistical analysis, consumers do not engage in repeated or favourable behaviours for a brand without first feeling attached to it. What is more, brand attachment fully mediates this association, meaning that it explains how brand commitment is generated via OBC commitment to the extent that it is not advisable to use any other marketing constructs as co-mediators (Rucker et al., 2011). This agrees with Zhou et al. (2012) who proposed that commitment to a group and its functions is very unlikely to produce any favourable outcomes for the brand, unless the latter rouses OBC participants' positive feelings towards it. H6b is therefore strongly supported.

The two additional hypotheses have been used to further respond to this thesis' first sub-objective which refers to the 'intermediate mechanisms':

- *What is the mediating role of brand attachment in OBC-generated relationships?*

Findings clearly illustrate that OBC managers should be aware that OBC commitment does not automatically translate into brand commitment and moderation efforts and strategies should be focused on the formation of positive emotions towards the brand. Furthermore, brand commitment is a direct outcome of brand identification but it becomes much more significant with the presence of brand attachment.

6.2.3 Commitment-trust theory in the OBC context

Very central to this thesis is the proposition that trust is a strong determinant of commitment, theorised as an attitudinal state that is able to produce favourable behaviours for the brand. Statistical interpretation of the survey in this research provides ample evidence that brand trust is an antecedent of brand commitment, confirming H9 ($SE=.37$, $z=3.18$). This implies that relying on an exchange partner and trusting its ability to keep its promises leads to positively biased actions that aim to preserve this valued relationship. Fundamental to this thesis is the finding that customers who trust a brand will invest in it by purchasing its products or services. Brand trust is a mental state that takes time to be built, is based on past behaviours and it has been proven that past experiences are one of the best predictors of future behaviours. Furthermore, findings suggest that with the presence of trust, customers have fewer incentives to switch brands and engage in more ambiguous exchange relationships. These results were expected since the association between brand trust and brand commitment is one of the most heavily researched in RM and has been confirmed by a large body of the literature (Morgan and Hunt, 1994; Gurviesz and Korchia, 2002; Lacey, 2007; Frisou, 2000; Chaudhuri and Holbrook, 2001; Gouteron, 2008; Hur et al., 2011).

The two sections that have already been deliberated above, combined with H9, answer the following research question:

***RQ2:** What is the mediating role of brand trust and brand commitment between the antecedents and the outcomes of customer-brand relationships in OBCs?*

It has been found that most OBC-related processes examined in this model have a direct, or indirect positive effect on customer-brand relationships. The exception to this is the OBC identification-generated brand identification, which was not found to have a significant effect on brand trust.

6.2.4 The behavioural outcomes of OBC-generated brand commitment

Path analysis firmly confirms H10 ($SE=.61$, $z=1.76$), supporting a direct positive effect of brand commitment on oppositional brand loyalty. Committed customers are not only more likely to actively support their preferred brand by repurchasing its goods and services but are also reluctant to make purchases from competing brands. This noteworthy finding suggests that by creating commitment through the use of an active OBC, brands can stay ahead of competition not only by retaining their customers but also by making them immune to other brands' marketing efforts. As per Cova and Pace (2006) and Becerra and Badrinarayanan (2013), strong bonds between customers and brands make the former treat competition as a threat to something which is valued and therefore actively, or passively, oppose and reject it. Although behavioural aspects OBC participation

have a positive effect on brand profitability, it is rather difficult to quantify them. In the case of oppositional brand loyalty, it would be very hard to foresee how many uncommitted customers would have turned to a competitor, the recognition of oppositional brand loyalty as an outcome of brand commitment however, is perceived as a primary profitability vehicle and necessitates the use of brand commitment-building strategies and platforms such as OBCs (Kuo and Hu, 2014).

Similarly, H11 assumes a strong positive effect of brand commitment on WOM, a relationship that data analysis in this thesis confirms ($SE=.59$, $z=4.01$). Committed customers are very likely to recommend a brand they like to people who trust and value their opinion such as family, friends or peers, generating indirect profits for the brand. As Fullerton (2005) eloquently posits, brand commitment induces people to become spokespersons for the brand. WOM, or Word-Of-Mouse as it is usually called online, has the potential to attract many new customers to a brand, enhancing its profitability. By creating and maintaining a strong relationship with their customers, brands also indirectly execute marketing campaigns that are far-reaching and inexpensive. Results of this thesis concur with the findings of Shirkhodaie and Rastgoo-deylami (2016), Tuskej et al. (2013), Merunka and Valette-Florence (2013) and Matzler et al. (2007) who further propose that committed customers will refer brands to others not only when they are asked to but also debate their experiences with them in everyday informal discussions or storytelling.

The thesis' final hypothesis (brand commitment \rightarrow willingness to pay a price premium) is also clearly confirmed by research findings ($SE=.76$, $z=2.58$). Willingness to pay a price premium is a robust behavioural indication as customers are prepared to pay more to acquire a product or service they perceive as of higher quality or value. SEM here has proven that customers who display favourable attitudes towards a brand in the form of commitment, are very likely to pay more to purchase it. Furthermore, these customers are ready to 'splash out' to buy a brand because of their connection with it. Emotional bonds can be so strong that they render money a secondary deciding factor in a purchase. Bloemer and Odekerken-Schröder (2003), Fullerton (2005) and Albert and Merunka (2013) have also studied this theoretical relationship, revealing similar results.

These three final hypotheses were used to respond to the research's first question:

RQ1: *What is the impact of OBC participation on members' behaviours towards the brand in terms of oppositional brand loyalty, willingness to pay a price premium and Word-Of-Mouth communications?*

As the above discussion reveals, there is a very close association between OBC-generated brand commitment and these marketing constructs. While enumerating the exact monetary gains a brand acquires through them is practically impossible, OBC managers should not overlook the fact that

solid customer-brand relationships through the use of OBCs have a strong potential to boost the profitability of their brands.

6.3 Theoretical contributions

It has been deliberated that it is far more profitable for brands to retain their current customers than constantly attempting to acquire new ones through expensive marketing campaigns (Tepeci, 1999; Kim and Cha, 2002). In a marketing arena where strong customer-brand relationships are hard to be established (Liang and Wang, 2005), this thesis has proposed a conceptual model to recognise that significant customer-brand relationships that are being generated within an OBC are important in terms of brand profitability. The thesis utilizes and expands Zhou et al.'s (2012) conceptual model to explore whether attitudinal outcomes of OBC participation also predict behavioural ones by introducing the commitment-trust theory (Morgan and Hunt, 1994) to further quantitatively measure if these relationships translate into profits for the brand. Secondary aims of the study are confirming the applicability of the social identification theory in an OBC context and the mediating effects of brand attachment in the OBC-generated customer-brand relationships. The role of brand trust is also examined.

It is widely known in the field of OBCs that participation in them leads to outcomes that are favorable for the brand. These outcomes in previous research, however focus almost exclusively on the creation of participants' positive attitudes (Casaló et al., 2010; Royo-Vela and Casamassima, 2011; Barreda, 2014). The link between these attitudes (or intentions) and actual behaviors that are likely to provide indirect monetary gains for the brand (Stokburger-Sauer, 2010; Wirtz et al., 2013) is currently unknown and therefore represents this thesis' main theoretical contribution. The statistical analysis here has provided ample evidence that brand trust and brand commitment that are generated through OBC participation have strong behavioral decedents. These behaviors are conceived as oppositional brand loyalty (Muniz and Hamer, 2001), willingness to pay a price premium (Persson, 2010) and Word-Of-Mouth communications (Hur et al., 2011). These three constructs were significantly understudied in OBC research but very closely related to virtual brand communities (Cova and Pace, 2006). From a theoretical perspective, these findings confirm the applicability of the social identification theory in OBCs, according to which participation in a social group creates positive attitudes and behaviors towards the entity (the brand) that is being supported by the social group (the OBC). This is also true for OBC members' planned behavior and, central to this thesis, the commitment-trust theory of relationship marketing.

Although not identified as the main aims of the study, the statistical analysis has provided some additional interesting insights. First, it identifies brand attachment as a full mediator in the relationship between OBC commitment and brand commitment. Consistent with the research carried out by Zhou et al. (2012), it is derived that OBC commitment does not, on its own, translate into brand commitment. In other words, committed OBC members may participate in an OBC to derive hedonic or social benefits but this may not reflect any positive attitudes (and later behaviours) for the brand. It is through positive emotions towards the brand (brand attachment) that commitment is being cultivated. The fact that brand attachment fully mediates this relationship is extremely important because, to a very large extent, it explains how commitment to a social group (the OBC) generates positive attitudes (in terms of brand commitment) that favour the brand. This occurs through the generation of positive brand-related emotions and is consistent with the social identification theory which proposes that individuals first commit to the social group they participate in, while later they can potentially develop positive feelings towards entities that are being supported by the social group and commit to them as well (Tajfel and Turner, 1979). This finding contributes to the RM and OBC research by both recognising brand attachment as the main connecting link between OBC commitment and brand commitment and by not advising further qualitative research in identifying additional mediators in this causal relationship.

Second, although brand identification has a statistically significant effect on brand commitment, this effect increases with the presence of brand attachment. Identifying with a brand is a result of self-imagery, preference and perceived customer-brand similarities. While these are sufficient to increase the profitability of a brand, emotions are crucial to enhance revenue even more. An identified customer develops positive feelings or emotions for a certain brand that he or she perceives as valued and consumes. Brand attachment was here found to partially mediate the causality of brand identification on brand commitment. This illustrates that it is only one of the possible marketing constructs which can be used as mediators. This thesis suggests that although important, emotions are not by themselves statistically substantial enough to fully explain how brand commitment is being generated through identification to a social group. Future qualitative studies should focus on identifying co-mediators.

Third, the results of data analysis do not provide support for the hypothesized relationship between brand identification and brand trust. Like in the aforementioned relationship between brand identification and brand commitment, brand identification does not necessarily reflect a willingness to rely on the brand or a confidence that it will keep its promises. This finding is meaningful in OBC research because unlike conventional marketing studies where brand trust has been recognised as brand identification's outcome (Kim et al., 2008), brand identification which is generated through

OBC identification does not display similar characteristics. Based on the social identification theory that is applied in OBCs, identification to the group is always much stronger than the identification that members exhibit towards the brand which is the supported entity (Zhang et al., 2015).

Faithful to the fourth objective of the study presented in Chapter One, this thesis also examines the application of the well-established commitment-trust theory (Morgan and Hunt, 1994) in an online context. Commitment-trust theory has been heavily tested in the offline and particularly in the B2B context. Here, its components are used as indirect outcomes of active member participation in an OBC. Furthermore, existing studies have, to a very large extent, disregarded OBC-specific interactions' outcomes (such as commitment and identification) before examining their relationship with brand-specific concepts. Attempts to relate OBC-generated relationships with behavioural consequences of OBC participation (here WOM, oppositional brand loyalty and willingness to pay a price premium) through the mediation of OBC-specific outcomes, especially those of brand commitment and brand trust, have mostly been theoretical and speculative (Wirtz et al., 2009). The applicability of the commitment-trust theory in the context of an OBC is confirmed, suggesting that, much like an offline context, relationships between brands and their customers revolve around commitment and trust, giving future researchers another tool to utilize in quantitative studies.

Finally, an attempt was made to clearly describe each of the conceptual model's constructs to make them pure and understandable. This attempt, for some of the constructs, included the collection and amalgamation of items from various studies, followed by a thorough procedure of selecting the most relevant ones. CFA was used to evaluate their validity and reliability following Bagozzi's (1984) recommendation, thus offering future researchers a valuable tool to empirically measure these constructs.

6.4 Managerial implications

Apart from the theoretical contributions, this study also delivers some practical insights for e-marketers or OBC owners. The findings incentivise marketers to utilize their OBCs in order to build strong and lasting relationships with their current or potential customers. More specifically, findings suggest that participation in an OBC which generates emotions of identification and commitment to the community is strongly but indirectly related to enhanced brand commitment, the most effective and reliable precondition for profitability (Cyr, 2008). An OBC is a powerful tool that can be used in shaping the strength and the endurance of the relationship between a brand and its followers or customers.

The findings of the data analysis suggest that practitioners should not only consider developing OBCs for higher profitability but also focus on devising RM strategies that encourage member participation. By actively and efficiently managing an OBC, marketers can create virtual spaces where customers are getting involved, exchanging information and broadening their understanding of brands (Hur, Ahn and Kim, 2011). Enhancing OBC interactions is thus crucial and may also involve providing benefits for participation. Such benefits can be economic (discounts or gifts for members) or they can be intangible (freedom of expression, addressing complaints or taking part in the conversation).

Findings suggest that there is no visible direct link between OBC commitment and brand commitment and a weak link between brand identification and brand commitment. These relationships are partially or fully mediated by the construct of brand attachment. Brand attachment, defined as emotions towards the brand (Zhou et al., 2012), is cultivated when OBC members have positive feelings towards the brand. These feelings may include, among others, brand love or brand affection and are generated slowly within the OBC. It is then crucial for OBC managers to focus on influencing members' feelings and incentivising their active participation. Managers should also be aware that the community itself plays a crucial role in the formation of positive brand-related behaviours. Members that have developed emotional ties with other members and with the brand through continuous interaction are more likely to become returning customers. The mere existence of a vibrant OBC however cannot by itself guarantee enhanced profitability unless marketers retain their focus on it, keep it relevant and replicate and improve all the successful strategies that have created a harmonious environment where likeminded customers interact and exchange ideas and information about a brand.

As reflected in figure 2, brand awareness plays an important role in OBC participation and identification. This has a substantial meaning for OBC managers since one of their rationales is to attract as many participants as possible. An OBC is by itself a relationship-generating tool that has the potential to provide monetary benefits (more than 62% of this thesis' respondents have declared that they purchased from the brand after becoming members) but considerable managerial efforts should be drawn upon making brands more recognisable and familiarizing customers with them. People that are aware of a brand are as much as 20 times more likely to search for its OBC and become participating members (Lin, 2013; Sam, 2012; Wu and Lo, 2009).

It has also been proven that once customers commit to their brand, they are much more likely to spread positive comments about it, pay more to acquire its products or services and resist the marketing efforts of competitors. In accordance with the propositions of Wong (2004) and Dick and

Basu (1994), positive emotions towards a brand positively influence behaviour and prevent customers from changing this behaviour which is favourable to the brand. Consequently, investing in building large, strong, vibrant, free and pleasant OBCs that will fulfil members' functional, social and hedonic needs, has the potential to attract new customers through positive WOM, allow the brand to charge more for its products and services and increase direct profitability through repeated purchases from its existing customers.

Although social media-based OBCs were not examined here, brand managers should be aware that differences between SNS-based and portal-based OBCs are usually minimal (Habibi et al., 2016), meaning that the findings are probably applicable to virtual brand communities that exist in the sphere of the social media too. Indeed, Lee, Xiong and Hu (2010) suggest that both SNS and non-SNS OBCs share similar characteristics such as the simultaneous and interactive communication of multiple members throughout vast geographical diversity, a large number of participants, an amalgamation of like-minded people and a space for discussion about specific brands. Quinn (2011) further posits that the medium of interaction might be slightly dissimilar but the mode is exactly the same. This mode is online and does not involve the physical presence of participants at certain locations, it does not even require conversations to be held in real time. Thus, insights extracted from this thesis are interesting in the SNS OBC research as well. Besides, the present study does not present any technicalities associated with portals or forums that could render it inapplicable to the context of social media. It needs to be declared however that social media, and especially platforms dedicated to personal leisure such as Facebook, allow for better use of multimedia than portals (Fisher, 2011). For example, brand pages on Facebook have the ability to stream content live, tag people in pictures and easily share audio and videos. All these features should be taken into account when developing a SNS-based OBC, it is unlikely however that they play a role in shaping members' perceptions or attitudes towards the focus brand in a way that is considerably different to a conventional OBC (Hsu, 2012). It also needs to be stated that the above is not necessarily true concerning hybrid communities (online and offline). Although these communities are exceptionally few (Gabrielli and Baghi, 2016), they usually operate at different levels during their offline meetings (usually in the form of brandfests). Participation in these meetings is very strong since it is voluntary, brand awareness is apparent at all stages and it would be logically expected that participants, to a large extent, are already identified, attached and committed to the brand since their presence in these brandfests requires considerable effort and investment of time and money (Wirtz et al., 2012). It is thus highly unlikely that online and offline BCs share the same process of customer-brand relationship generation. Moreover, OBCs could add offline meetings as a consequence of the strong relationships that have been generated online among members themselves and among members

and the brand over time, but there is not much evidence in the literature regarding this. It would be a good opportunity for OBC managers to seize the chance and consider this option not only to strengthen their relationships with their OBC members even more so but to also assess the effectiveness of their OBC.

6.5 Limitations

This thesis' contributions to the RM and OBC literatures as well as its findings' usefulness to practitioners have been discussed in this chapter. It is however associated with several limitations that are presented here. They are mainly focused around the context of the thesis, the chosen population sample and the construct selection. It needs to be declared that no research is free from limitations and the researcher's ability to recognise them strengthens his or her work (Dolen, Ruyter and Lemmink, 2004).

First, the sample of this thesis comes from OBCs belonging to an array of different industries. Although they share similar characteristics deeming them fit for examination, applying the research's insights to specific industries might be risky. Although this work has provided a strong case for systematic use of OBCs, nuances of each industry might require careful re-examination of its outcomes (Reis and Forte, 2016). Sports OBCs that are dominated by men, for example, should perhaps opt for heavier moderation, while other OBCs (i.e. technology-based) should focus on disseminating their content (Warren and Brownlee, 2014). Additionally, although the OBCs examined belong to brands within oligopolistic markets, highly concentrated markets or more competitive ones may exhibit OBC-member behaviours that deviate considerably. Furthermore, the population constituting the sample is comprised of Western customers as all observed OBCs are UK-based. Therefore political, religious, cultural and ethnic distinctions that are important in other parts of the world are not taken into account here. Future researchers consulting this study should be aware that the behaviours of customers from different cultures can vary substantially (Arnold and Bianchi, 2001) hence generalization or application of its findings to different backgrounds should be approached with caution.

Second, future researchers should be aware that the outcomes of participating in an OBC are not limited to the behavioural aspects of OBC commitment and OBC identification. Prior research has revealed that OBC trust, OBC co-creation, OBC satisfaction and OBC loyalty are also cognitive and emotive states that derive from OBC participation (Jung, Kim and Kim, 2014; Fisher and Smith, 2011). While this probably has trivial implications to practitioners who are predominantly concerned with the consequence of OBC participation to brand profitability, it is of significant importance to

researchers evaluating consumer psychology and the process of trust, commitment and loyalty formation. In the same vein, OBC participation is a complex phenomenon and its imperative role in the success of an OBC might illustrate a necessity for the generation of more wide-ranging scales that measure it. This is because, sometimes, user frequency which was used in this thesis or log-in time might not fully capture the entirety of participation (Kang et al., 2014).

Third, the present thesis focuses predominately on OBCs in the form of discussion boards or forums and is not concerned with SNS-based OBCs. In the era of social media, this could be a threat to the research's future application. Facebook, Twitter, Instagram, Pinterest, LinkedIn and other social media platforms have given their members and brand managers the opportunity to create massive and very easily accessible OBCs where members do not only have the ability to interact with one another but also to become 'friends', exchange information concerning their lives, pictures and audio and video files (Schembri and Latimer, 2016). These massive virtual human gatherings have the potential to shape traditional RM (Kim and Ko, 2012) and should be taken into serious consideration as per the discussion in section 6.4.

Finally, the observed OBCs have been brand-initiated only. The vast majority of OBCs however are customer-initiated (Jang et al., 2008) and this can limit the application of this thesis' outcomes to those OBCs.

6.6 Conclusion

This chapter discoursed the implications of data analysis on the thesis' conceptual model hypotheses, as well as its possible theoretical and managerial contributions. The hypothesized positive effects of OBC commitment on brand commitment and of brand identification on brand trust were not confirmed. The remaining 10 hypotheses were confirmed therefore offering significant potential for this study to impact future research and practice. The following chapter concludes this thesis by summarizing it and providing recommendations for further research in the fields of OBCs and RM.

7.0 Conclusion

“No amount of sophistication is going to allay the fact that all your knowledge is about the past and all your decisions are about the future.”

Ian E. Wilson

7.1 Thesis conclusions

The foremost aim of RM is to build and maintain solid customer-brand relationships that will benefit both. The relationship-building process however is not always easy and straightforward. This thesis contributes to knowledge by confirming that the attitudinal outcomes of OBC participation (brand trust and brand commitment) are being translated into behavioural ones. This thesis is the first to examine how OBC-generated customer-brand bonds affect the brand's profitability solely based on members' planned behaviour. It examines the impact that brand commitment has on three heavily understudied behavioural outcomes of OBC participation: willingness to pay a price premium, WOM and oppositional brand loyalty. Path analysis has revealed a strong direct effect of brand commitment on all three. Brand managers are thus urged to initiate and run a vibrant OBC that will encourage the generation of emotions and create committed customers who will be willing to pay more for their loved brand, recommend it to others and resist the marketing efforts from competition.

The present study is proposing a conceptual model which also confirms that customer-brand associations are built within the medium of an OBC. The model delivers a deeper understanding of the course of development of positive emotions, attitudes and behaviours between providers and their customers by examining the relationship between OBC-participation outcomes and brand-related outcomes. More specifically, it attests the causal effect of OBC commitment and OBC identification on brand commitment and brand identification accordingly. Research findings suggest that the former relationship is insignificant, while the latter only marginally significant. What really explains the formation of customer-brand relationships in the context of an OBC is brand attachment which is apparent in most OBCs and induces members to extend their positive feelings towards the OBC to the focal brand. It should be stated however that although other marketing constructs have previously been (or could be) used in the model, the current ones, to a very large extent, give an adequate insight into the relationship-building process based on the social identification theory and into the pivotal role of emotions (in the form of brand attachment) in it.

Although previous research has provided support for the importance of attachment in customer-brand relationships, this thesis confirms results by testing these causal effects drawing on a much

bigger and diverse sample. Generally, results indicate that OBC members who are committed to their community do not necessarily commit to actions that favour the brand, such as repeated purchases. Similarly, identified members identify with the brand but this identification is not strong enough to provoke brand commitment. It is the construct of brand attachment that mediates both relationships, urging brand managers or OBC moderators to engage in strategies and practices that promote the generation of attachment in their communities.

This thesis is also the first to bring the commitment-trust theory to an online context, not only to examine its applicability but also to offer explanation as to how antecedents of attitudes or intentions towards a brand are being translated into favourable behaviours. Research outcomes suggest that, despite the theoretical foundation of the relationship, brand identification and trust are not associated. The use of commitment-trust theory is particularly suitable here, again due to brand attachment which positively affects brand trust. Brand trust, as expected, was also found to be a major determinant of brand commitment, confirming the theory's applicability in the OBC context.

7.2 Directions for future research

This thesis has developed a theoretical model which suggests that OBC participation-driven OBC commitment and OBC identification provide positive outcomes for the brand in terms of enhanced attachment, trust, identification and commitment to it. Furthermore, that this OBC-generated commitment has direct and indirect value for the brand in terms of WOM communications, customers' willingness to pay more and oppositional brand loyalty. There are areas however that need clarification and present opportunities for future researchers. For example, it would be very interesting to apply this model to specific industries to attest its applicability. Furthermore, focusing exclusively on tangible goods or services can provide managerial insights in the sector in which OBC relationships are more profitable for the brand.

Future researchers in the fields of RM and OBCs are also encouraged to confirm the model's applicability in a B2B environment. OBCs are increasingly used not only by private but also corporate customers (Bruhn, Schnebelen and Schäfer, 2014) hence the results in settings where relationships are founded on formal agreements, or contracts (Hutt and Speh, 1995) might be dissimilar. The commitment-trust theory is an invaluable tool in measuring B2B relationships since it was initially conceived by Morgan and Hunt (1994) for this particular context.

As mentioned in section 6.5, it is crucial that the conclusions of this thesis should be tested in the social media context. A possible confirmation of the findings would provide practitioners with a

valuable primary instrument to initiate successful OBCs. It would also mean that the process through which relationships between customers and between customers and brands are generated in BCs online is parallel for all Web 2.0 settings. On the other hand, if results differ significantly then the research interest should be drawn to the question of what makes SNS-based OBCs unique and what are the mechanisms that should be utilized for robust relationships there.

As technological advancement is a global phenomenon, it would be revealing to apply this conceptual model to a different cultural context. Partivayar (1995) suggests that culture is crucial in B2C relationships hence using a more culturally diverse sample, or repeating the study in another geographical context would give insights on how different customers around the world should be approached by OBCs.

The direct relationship between OBC commitment and brand commitment also requires further investigation. Although the marketing literature provides evidence for this causality (De Almeida et al., 2008; Raïes and Gavard-Perret, 2011), analysis of the collected data for the present study did not reveal a significant relationship between the two. In contrast, OBC commitment's effect on brand commitment was fully mediated through brand attachment indicating that OBC members who are committed to their community, do not necessarily commit to the brand as well before developing a sense of attachment to it. Further quantitative research is therefore needed to reveal greater insights into this marketing relationship.

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Appendices

Appendix A.

1. Cover Letter to the Participants of the Survey

Brand Communities and Online Brand Communities

An online brand community is a community on the internet which is formed on the basis of attachment to a product or marque. Recent developments in marketing and in research in consumer behaviour result in stressing the connection between brand, individual identity and culture. A brand community can be defined as an enduring self-selected group of actors sharing a system of values, standards and representations (a culture) and recognizing bonds of membership with each other and with the whole. Many modern brands have communities online where their customers can gather, discuss about the brand, query other customers and even the brand itself or just socialise with people having similar interests or consumption habits.

Brand communities can be small groups of 5-10 people or can be massive having millions of active or passive members. Most major brands have one or more brand communities. These communities can exist on the brands' websites, can be discussion forums, interactive communities or pages on social media (like Facebook).

It is believed that people who take part or belong to brand communities (online brand communities in this case) will show favourable attitude towards the brands that the communities support or belong to.

This survey is being conducted by Marios Pournaris, a PhD student in Brunel University London. Please fill in the questionnaire according to your reality.

This survey is conducted in order to speculate the online brand community participation's effect on a brand's financial performance. The researcher aims to identify if participating in an online brand community can influence the participant's attachment to this community and therefore to the brand that this community supports. More specifically, this survey measures 9 marketing constructs:

- 1) *Online Brand Community Identification*
- 2) *Online Brand Community Commitment*
- 3) *Brand Identification*
- 4) *Brand Attachment*
- 5) *Brand Trust*
- 6) *Brand Commitment*
- 7) *Word-Of-Mouth*
- 8) *Willingness to Pay a Price Premium*
- 9) *Oppositional Brand Loyalty*

This questionnaire comprises 52 simple and quick questions measured in 7-point scales. 5 of them are screening/general questions for statistical reasons while the rest of them refer to the actual constructs that the researcher aims to measure.

Completion of the Survey should take a **maximum of 15 minutes**.

Responses to this survey are considered **confidential and therefore individual responses will not be released, shared, or published**. Rather, survey results will be reported in aggregate data sets. Furthermore, this survey is anonymous and the results of statistical analyses will not be sold or given to third parties or organisations but will only be used in an academic report.

Thank you for participating in this survey. Your feedback is important.

2. Invitation to OBC owners requesting participation in pre-test

Dear Sir/Madam,

My name is Marios Pournaris and I am a doctoral student at Brunel University, London. I would kindly like to ask you whether I could use your Online Brand Community as a subject of my study. My research is not on your OBC exclusively but I wish to include the latter as a part of my work which will involve 10 large online brand communities. It would be greatly appreciated if you could post my survey on your main page every once in a while, so it will be visible to your members and, if possible, if we could have a very short meeting online or offline to see what you think concerning my questions. More specifically, I would like someone like you to read my questionnaire and let me know if it is clear and understandable, while providing some feedback or recommendations to improve it. The total length of the meeting should not exceed 5-10 minutes.

Thank you for your precious time and I look forward to hearing back from you

Kind regards,

Marios Pournaris

Appendix B.

1. Questionnaire

SECTION A:

These questions are for statistical purposes only:

1. What is your gender?

- Male
- Female

2. What is your age?

- 20 or younger
- 21-30
- 31-40
- 41-50
- 51-60
- 61 or older

3. What is your marital status?

- Single
- Married/In a serious relationship

4. What is your education?

- Primary school or below
- High school
- Diploma
- University degree
- Postgraduate degree

5. How long have you been a member of the Online Brand Community?

- Less than a month
- 1-3 months
- 4-6 months
- 6-12 months
- 1 year+

6. When did you buy the product which is related to the Online Brand Community?

- Before becoming a member
- After becoming a member

SECTION B: Online Brand Community Participation Outcomes

OBCI: Here are questions for ‘Brand Community Identification’ that may or may not apply to you. For all the questions, please answer using a seven-point scale

7. I see myself as a part of this Online Brand Community

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

8. When someone praises my Online Brand Community, it feels like a personal compliment

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

9. When I talk about my Online Brand Community, I usually say “we” rather than “they”

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

10. When someone criticizes my Online Brand Community it feels like a personal insult

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

OBCC: Here are questions for ‘Brand Community Commitment’ that may or may not apply to you. For all the questions, please answer using a seven-point scale

11. I really care about the fate of my Online Brand Community

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

12. I feel a great deal of loyalty to my Online Brand Community

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

13. The relationship I have with my Online Brand Community is one I intend to maintain indefinitely

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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14. The relationship I have with my Online Brand Community is important to me

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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SECTION C: Relationship antecedents

BI: Here are questions for ‘Brand Identification’ that may or may not apply to you. For all the questions, please answer using a seven-point scale. Please note that the word ‘Brand’ refers to the brand that your Online Brand Community supports or is about

15. I am interested in what others think about my brand

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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16. When I talk about my brand I usually say “we” rather than “they”

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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17. When someone praises my brand it feels like a personal compliment

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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18. When someone criticizes my brand, it feels like a personal insult

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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BA: Here are questions for ‘Brand Attachment’ that may or may not apply to you. For all the questions, please answer using a seven-point scale. Please note that the word ‘Brand’ refers to the brand that your Online Brand Community supports or is about

19. This brand is affectionate

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
---	---	---	---	--------------------------------------	--	-----------------------

20. This brand is loved

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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21. This brand is peaceful

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

22. This brand is friendly

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

23. I am attached to this brand

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

24. I am bonded by this brand

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

25. I am connected with this brand

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

26. This brand makes me passionate

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

27. This brand makes me delighted

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

28. This brand makes me captivated

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

SECTION D: The Commitment-Trust theory

BT: Here are questions for ‘Brand Trust’ that may or may not apply to you. For all the questions, please answer using a seven-point scale. Please note that the word ‘Brand’ refers to the brand that your Online Brand Community supports or is about

29. I trust this brand

Strongly disagree Disagree moderately Disagree a little Neither agree or disagree Agree a little Agree moderately

30. I rely on this brand

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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31. This is an honest brand

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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32. I feel confident in this brand

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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33. This brand guarantees satisfaction

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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BC: Here are questions for ‘Brand Commitment’ that may or may not apply to you. For all the questions, please answer using a seven-point scale. Please note that the word ‘Brand’ refers to the brand that your Online Brand Community supports or is about

34. I am strongly related to this brand

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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35. I like this brand

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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36. This brand has a lot of meaning to me

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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37. It would be very hard for me to switch away from this brand now even if I wanted to

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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38. My life would be disturbed if I had to change brands

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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39. It would be too costly for me to change brands

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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SECTION E: Relationship Outcomes (financial)

WOM: Here are questions for 'Word-Of-Mouth' communications that may or may not apply to you. For all the questions, please answer using a seven-point scale. Please note that the word 'Brand' refers to the brand that your Online Brand Community supports or is about

40. I give advice about this brand to people

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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41. I share my personal experiences about this brand to others

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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42. I share my personal experiences about this brand with others

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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43. I will speak positively about the advantages of this brand

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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44. I will actually recommend this brand to my friends

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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PP: Here are questions for 'Willingness to Pay a Premium' that may or may not apply to you. For all the questions, please answer using a seven-point scale. Please note that the word 'Brand' refers to the brand that your Online Brand Community supports or is about

45. I am willing to pay a higher price for this brand than for other brands

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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46. If this brand increased its price overall, I would continue buying from it

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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47. If this brand increased its price overall, I still would not buy from a competitor that offers more attractive prices

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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48. If this brand maintained most current prices but charged extra for its services, I would still use it

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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OBL: Here are questions for 'Oppositional Brand Loyalty' that may or may not apply to you. For all the questions, please answer using a seven-point scale. Please note that the word 'Brand' refers to the brand that your Online Brand Community supports or is about

49. I will not consider buying products of opposing brands even if the products can in some cases better meet consumers' specific needs (e.g., lower fuel consumption)

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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50. I will express opposing views or opinions to products of opposing brands even if the products are considered better by some other people

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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51. I have low intention to try products of opposing brands even if the products are widely discussed by other people

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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52. I will not recommend people buying products of opposing brands even if an opposing brand has new and perhaps better products

<input type="radio"/> Strongly disagree	<input type="radio"/> Disagree moderately	<input type="radio"/> Disagree a little	<input type="radio"/> Neither agree or disagree	<input type="radio"/> Agree a little	<input type="radio"/> Agree moderately	<input type="radio"/>
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