

The Role of Product Involvement and Sensory Brand Experience on Customer Engagement Behaviour

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.

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Ethical Approval

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Abstract

The Marketing Sciences Institute's 2006-2008 and 2010-2012 Research Priorities (MSI, 2006, 2010) highlight the need for further research addressing the customer engagement behaviours, as it is a key research area for understanding customer experience and behaviour. Despite the potential contributions, along with the mounting interest and acceptance among marketing practitioners, the concept of customer engagement has attracted little academic interest (Brodie, Hollebeek, Ilic, & Juric, 2011; Hollebeek, 2011a, 2011b). Moreover, sports marketing literature seems to have totally ignored the MSI priority. The present study is among the first attempts to empirically examine customer engagement issues in the sports marketing context.

The aim of this research is to generate further insights into the customer engagement behaviour by studying the relationship between Product Involvement, Sensory Brand Experience and Customer Engagement Behaviours in the form of word-of-mouth (WOM) activity and online interactions. Also, drawing from previous literature, brand engagement in self-concept (BESC) and frequency of playing the sport are integrated in this study as important moderating variables of those relationships.

The hypothesized positive direct effects of Product Involvement and Sensory Brand Experience on different dimensions of WOM activity including Intensity, Positive Valence, and Content were supported. Also a significant positive direct effect was found on online interactions. In most relationships, BESC and frequency of playing the sport had significant interaction effects. For instance, BESC positively moderated the relationship between Product Involvement and the Content dimension of WOM activity. BESC was also found to have positive moderation effects on the relationship between Sensory Brand Experience and the Intensity and Content dimensions of WOM activity.

Moreover, a positive direct effect of BESC on WOM Positive Valence and online interactions was uncovered.

With the exception of Product Involvement and WOM Positive Valence, frequency of playing the sport moderated all relationships as well as a positive direct effect on all dimensions of WOM and an online interaction activity was found. A number of hypotheses were not supported, which calls for further academic inquiry on the evolving topic of customer engagement.

The results presented in this study shed light on the dynamical aspects of customer engagement. They also stressed the importance of socio-psychological and experiential constructs in enhancing customer-firm relationships and customer-to-customer interactions. While customer engagement metrics still need to be developed (Bolton, 2011), exploring engagement behaviours allow marketing scholars and practitioners to further understand this evolving topic. This dissertation is therefore expected to provide valuable insights for both marketing scholars and practitioners.

Chapter 1

Introduction

In the past decade, the concept of “engagement” has gained significant interest among marketing scholars (Brodie et al., 2011). The precipitated advances in the development of new communication technologies in combination with the globalization of markets have nurtured communities of actual and potential consumers (Gummerus, Liljander, Weman, & Minna, 2012). Given this scenario, firms have recognized an array of opportunities to explore new ways to engage customers, and deliver and sustain emotional connections with their brands (Vivek, Beatty, & Morgan, 2012).

The importance of a deeper understanding of the construct of engagement for marketing academics was highlighted in the 2006-2008 *Research Priorities* of the Marketing Science Institute. Customer engagement continued to be a research priority of MSI in 2010–12, and it was defined by the institute as “customers’ behavioural manifestation toward the brand or firm beyond purchase” (Vivek et al., 2012, p. 127). Most recently, the MSI’s 2012-2014 *Research Priorities* called for research on consumers’ experience with products stating that “people buy experiences, not products” and that research in “designing experiences that create brand value” was essential (MSI, 2012).

In alignment with the MSI’s 2012-14 *Research Priorities*, recent research asserts that the “customer engagement” concept has the potential of helping academics to understand customer experience in a more holistic way (Bowden, 2009) and it can be considered a fundamental constituent of relationship marketing (Vivek et al., 2012). Further on, it is argued that within today’s dynamic, interactive business environments, and an increasingly networked society, where experiential marketing and online

interaction are taking place, customer engagement plays a crucial role in facilitating the development of new products and the co-creation of experience and value (Prahalad & Ramaswamy, 2000), improving advertising effectiveness (Calder, Malthouse, & Schaedel, 2009) and corporate performance, and sustaining competitive advantage and profitability (Brodie et al., 2011). Accordingly, companies are progressively implementing engagement strategies that impact on both transactional and most relevantly, non-transactional customer behaviour (Verhoef, Reinartz, & Krafft, 2010), what van Doorn et al. (2010) refer to as *customer engagement behaviours*.

Customer Engagement Behaviours are specifically defined by van Doorn et al. (2010) as:

“a customer’s behavioural manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers” (pg. 254).

In parallel to the line of reasons provided by the Marketing Science Institute (MSI, 2010), van Doorn et al. (2010) argue that a customer’s behavioural manifestation toward a brand or firm that go beyond transactions is the essence of customer engagement. Consistent with this view, marketing managers are increasingly inclined to focus on strategies that consider quantifiable customer engagement behaviours that extend beyond customer-firm transactions such as word-of-mouth (WOM) activity, recommendations, blogging or other online interactions such as posting reviews, and other customer-to-customer (C2C) exchanges (Bolton, 2011).

Not only customer engagement behaviours are predicted to be a main priority for firms (Verhoef et al., 2010) but also a new research perspective in marketing in the coming years (Brodie et al., 2011). Notwithstanding, the concept of customer engagement has attracted little empirical research and some authors have lamented that the research-

based knowledge on different dynamical aspects of the construct in specific contexts is limited. In particular, the body of inquiry toward the interrelationship of customer engagement behaviours and other related concepts in the context of sports marketing is sparse. Taking into account that sport consumers attach great value to sport brands as these provide them with memorable experiences and other valuable associations that make them unique and highly relevant, investigating customer engagement in this context seems promising.

1.1 Aim of the Dissertation

A number of conceptual models of customer engagement have been discussed in the marketing literature. Yet, empirical research that investigates the interrelationship of customer engagement behaviours such as WOM activity and online interactions with other related constructs is needed (van Doorn et al., 2010). Subsequently, insights into how specific antecedents and moderating variables that affect the relationship between WOM activity and other relevant constructs account for an important contribution to this stream of research.

Different researchers have identified Product Involvement –an individual’s level of interest and personal relevance on a particular product according to the person’s values, goals, and self-concept (Zaichkowsky, 1985)– as a customer engagement antecedent (Brodie et al., 2011; Hollebeek, 2011a). Similarly, it is recognized that customer engagement cannot genuinely be comprehended independently of experiences, which are integral to the construct and henceforth likely to lead to customer engagement behavioural outcomes (Higgins, 2006; Malthouse & Calder, 2011; van Doorn et al., 2010). While Brand Experience is conceptualized in terms of sensory, affective, cognitive and behavioural consumer responses caused by brand-related stimuli (Brakus,

Schmitt, & Zarantonello, 2009), the sensorial dimension of sport brands refers to those tangible features that can be experienced via all consumers' senses (Bouchet, Hillairret, & Bodet, 2013). Considering that sports experiences have a strong impact on all human senses and that sports participants such as active tennis players tend to attach great importance to their sports equipment (Bloch, Black, & Lichtenstein, 1989), to investigate the interrelationship between these constructs (Product Involvement and Sensory Brand Experience) and Customer Engagement Behaviours, specifically WOM activity and online interactions, is valuable to this stream of research.

In short, the aim of this dissertation is two folded:

1. To explore the direct effect of customer-based factors including Product Involvement and Sensory Brand Experience on customer engagement behaviours in the form of WOM activity and online interactions.
2. To investigate to what extent the effect of Product Involvement and Sensory Brand Experience on customer engagement behaviours in the form of WOM activity and online interactions is contingent upon particular factors including:
 - a. A consumer's general tendency to include brands as part of his/her self-concept: brand engagement in self-concept (Sprott, Czellar, & Spangenberg, 2009).

Taking into account the finding that individuals actually differ in their inclination to consider brands as part their self-concepts, it is likely that such tendency will cause an effect on their propensity to spread the word about the brands they use. Sport brands are characterized by having an impact on sports participants' self-concept. The main

premise behind this notion is that sports brands' symbolic content is transferred to the participant and in consequence he or she is expected to attach value to links between the brand and the self (Bouchet et al., 2013). Based on this, it is likely that sports actors' general tendency to include brands as part of their self-concept, will have an effect on the relationship between WOM activity, and Product Involvement and Sensory Brand Experience.

- b. Frequency of playing the sport. In this case: Frequency of playing Tennis.

A key aspect of sports participants is a consistent devotion of time and energy to the sport. In fact, sports actors vary in the way they are committed to a particular sport and this is well reflected in the time they allocate to such activity. From this perspective, it can be assumed that frequency of playing tennis may reflect levels of involvement with the sport equipment. For instance, it is very likely that a tennis player who plays only once a week is less involved and experiences his/her tennis racket differently than a player who practices the sport more often. Considering that close links between product involvement and brand experience, and behavioural patterns, such as a frequency of using a particular product have been found in the marketing literature (Iyengar, Van den Bulte, & Valente, 2010), it is assumed that the time spent in playing tennis will affect the relationship between WOM activity, and Product Involvement and Sensory Brand Experience.

1.2 Structure of the Dissertation

This dissertation is consisted of six chapters. Chapter one introduces the research by identifying a research gap in the current customer engagement literature and the relevance and purpose of the study as a result. The second chapter provides a literature review about customer engagement and customer engagement behaviours in the form of word of mouth (WOM) activity and online interactions with a brand focus. Based on the literature review, Chapter three presents the theoretical framework, hypotheses and a graphical representation of the conceptual model that this study aims to test. The methodology, including the research instrument, techniques for data collection and analysis is explained in the following chapter. Chapter five discloses the details of the data analyses, and the results of the hypotheses testing. The summary, interpretation, and the findings of the study are explicated in Chapter six. Also, provided in this final chapter are the limitations and suggestions for future inquiry and the conclusions.

Chapter 2

Literature Review

Even though the concept of customer engagement has gained interest from marketing scholars, only a small number of authors have endeavoured to theoretically define the term. Such efforts have produced an array of engagement sub-forms including “engagement” (Higgins & Scholer, 2009), “customer engagement” (Brodie et al., 2011; Paterson, Ting, & Ko, 2006) “consumer engagement” (Vivek et al., 2012), “online brand engagement” (Mollen & Wilson, 2010), “consumer engagement process” (Bowden, 2009), “customer brand engagement” (Hollebeek, 2011b), “engagement behaviour” (Pham & Avnet, 2009) and “customer engagement behaviour” (van Doorn et al., 2010). Although this notion takes different forms within the literature, an agreement among researchers about the theoretical foundations and multidimensionality of the construct seems to emerge.

The concept of engagement is rooted on theory derived from relationship marketing and the perspective of service-dominant logic (Hollebeek, 2011b). Relationship marketing refers to all marketing activities focused on establishing, nurturing, and maintaining prosperous relationship exchanges between firms and customers (Morgan & Hunt, 1994). Parting from this view, Gambetti & Gaffigna (2010) stress that *customer-related*, *media-related* and *company-related* factors have marked the key role of customer engagement in constructing and maintaining strong customer-brand relationships. The researchers identify the concept as a promising variable in the marketing discipline and they further explain that each of those categories concerned with the customers, media, and firms, highlight the importance of engagement and its strategic role in value-

creation, media planning, and corporate behaviour among many other factors. Further on, marketing scholars and practitioners realize the strategic role of engagement in crafting richer, more meaningful and lasting relationships with customers and relevant stakeholders (Kumar et al., 2010). Respectively, the service-dominant logic explicitly advocates the crucial role of consumers as proactive sources in co-creating their own experiences and perceived value with firms through active, explicit and ongoing interactions (Vargo & Lusch, 2004, 2008a, 2008b; Vargo, Maglio, & Akaka, 2008). According to Brodie et al. (2011), such terms including *inter-actions* and *co-creative experiences* can be interpreted as the act of “engaging”.

The consensus amongst academics surrounding the multidimensionality aspect of the concept of engagement is also evident. In fact, there is unequivocal agreement that the concept involves *cognitive*, *emotional*, and *behavioural* dimensions (Bowden, 2009; Brodie et al., 2011; Gambetti & Graffigna, 2010; Hollebeek, 2011b; van Doorn et al., 2010; Vivek et al., 2012), which expression is subject to a particular setting and/or stakeholder (Verhoef et al., 2010). Additionally, *experiential* (Gambetti, Graffigna, & Biraghi, 2012) and *social* dimensions (Gambetti et al., 2012; Vivek et al., 2012) are also considered as central to the customer engagement construct. Essentially, customer engagement is perceived as a concept that expands relationship marketing and captures these dimensions in –context dependent– experiential interactions between a customer and a brand (Brodie et al., 2011).

With an explicit focus on behavioural aspects of the customer-firm relationship, Customer Engagement Behaviours denote the *behavioural* dimension of customer engagement. Apart from sales and transaction metrics, the emerging focus on customer engagement draws attention to an array of motivationally driven *non-purchase*

behaviours that have an impact on firms and their various stakeholders (van Doorn et al., 2010). Customer Engagement Behaviours comprise, but are not limited to, customer-to-customer (C2C) interactions in the form of word-of-mouth (WOM) activity like recommendations and referrals, online interactions such as reviews in social media channels, web postings, blogging and participation in a brand community, and many other behaviours influencing the firm and its brands (van Doorn et al., 2010). In part, the emphasis on the evolving concept of customer engagement derives from the way whereby engaged customers, who display behaviours that have a firm or brand focus, beyond mere purchase cause a meaningful –direct or indirect– effect on other people’s choices (Libai et al., 2010). Managers, marketing researchers, and sociologists for instance, concur that customer interactions can strongly affect consumer responses to a product (Kumar et al., 2010). This is well reflected in the broader perspective of Libai et al. (2010) who far from simply categorize WOM activity as two particular customers talking about a brand, conclude that C2C interactions should be regarded as:

“the transfer of information from one customer (or a group of customers) to another customer (or group of customers) in a way that has the potential to change their preferences, actual purchase behaviour, or the way the further interact with others” (pg. 269).

As the authors indicate, this definition is in alignment with the current market place situation, where customers have taken a more active role as market players. With the emergence of the new online environment, the volume of interpersonal communication has increased and consumers are able to share their opinions, inclinations, or experiences with others through an array of *decentralized* digital avenues (Godes et al., 2005). On the other hand, such an environment presents firms a clear opportunity to take advantage of WOM marketing (Kumar et al., 2010) and also, marketing scholars have an opportunity to reconsider how they study C2C interactions and other relevant customer behavioural manifestations that unquestionably are significant to business

performance and have drastically altered the customer-firm relationship (Henning-Thurau et al., 2010). Henceforth, a broader look at the dynamics and measures of different forms of Customer Engagement Behaviours allows marketers to examine the role of customer engagement in building customer value. Paraphrasing van Doorn et al. (2010), a deeper understanding and proper management of these behaviours can only be achieved by a logical and systematic conceptualization of their motivational drivers, consequences, and other relevant mediating-moderating variables in specific settings.

2.1 Word-of-mouth (WOM) activity and online interactions in Sports

In the context of sports, word-of-mouth (WOM) activity and online interactions are two of the most common behavioural expressions of Customer Engagement Behaviours. In fact, it was found that the behavioural intentions of sport consumers are significantly impacted by the transference of personal experiences through WOM activity (Shreffler & Ross, 2013). In tennis for example, where the release of improved models with new technological advances occur every year (Kim, 2009), players tend to rely in professional reviews as well as on the knowledge and experiences of other players when choosing a particular racquet brand.

As traditional communication channels are perceived as less reliable sources, consumers simplify information processing by increasingly looking and interacting with each other (Godes et al., 2005). This has been possible by the facilitation of online-based and mobile channels that enable consumers to share ideas, comments and reviews about specific products, brands or firms in the online space. In addition, user-generated information is perceived as independent from firms and is becoming more important in the consumer's decision-making process (Chen & Xie, 2005). Not surprisingly, e-commerce portals such as tennis warehouse.com or mobile applications like *the tennis*

app, which allow and encourage tennis participants and fans to read opinions, post reviews or comments, have become increasingly popular. Based on these arguments, using offline WOM activity and online interactions to further understand the dynamics of Customer Engagement Behaviours in this particular setting is theoretically and practically meaningful. In short, a focus on the motivational drivers of WOM activity and online interactions as behavioural expressions of Customer Engagement Behaviours allows this research to gain a better understanding of the antecedents of customer engagement in the sports context.

2.2 Valence of word-of-mouth (WOM) activity and online interactions

The valence of behaviours is an important dimension of customer engagement (van Doorn et al., 2010). In essence, Customer Engagement Behaviours can be catalogued as positive or negative in relation to the impact (financial or non-financial) they have on firms or brands. Basically, WOM activity and online interactions can be positive or negative for the firm based on the valence of the content. For example, tennis racket brands can benefit from tennis players that recommend or talk about a particular racket; contrariwise, reading a negative review or any other communication that has a poor fit between the customer's and the brand's goals can bring negative consequences for the brand.

Both positive and negative WOM activity can have an overwhelming impact on business performance and a strong effect on consumer's attitudes and purchase decisions (Arndt, 1967; Bone, 1995). Regarding positive WOM, studies show that it enhances consumers' purchase intentions for innovative products by reducing risks (Ditcher, 1966), improves brand and corporate image (Arndt, 1967) and in consequence reduces a firm's overall promotional expenditures (Sundaram, Mitra, & Webster, 1998).

Positive WOM is also associated with customers' level of trust, service quality, satisfaction, perceived value, relationship quality, and purchase intention (Goyette, Ricard, Bergeron, & Marticotte, 2010). Moreover, recent research found that customers acquired through WOM activity add more long-term value to firms than customers acquired through conventional marketing channels (Villanueva, Yoo, & Hanssens, 2008). Godes et al. (2005) highlight the importance of WOM activity, as consumers perceive it as more useful than advertising and other media channels. Conversely, it has been shown that negative WOM is more intense than positive WOM as dissatisfied customers engage in more WOM than satisfied ones (Anderson, 1998). Further on, negative WOM can damage organizations in different ways through sources of harmful brand information (Smith, 1995) and can also discourage potential customers from considering a certain product causing financial and reputational damage to the firm (Holmes & Lett, 1977; Serra Cantallops & Salvi, 2014).

Providing that the valence of Customer Engagement Behaviours is central to understanding the nature of customer engagement (van Doorn et al., 2010), the present study takes into account different dimensions of WOM activity including valence (positive WOM), intensity, which refers to the scope of what is being said about the brand; and content, which denotes what is being said about the brand (Goyette et al., 2010). In addition, online interactions through social media and other brand-related online sites are also considered.

2.3 Motivational drivers of word-of-mouth (WOM) activity and online interactions

Another important dimension of Customer Engagement Behaviours is the customers' motivations of engagement, which are conceptualized as the aim of engagement behaviour (to whom is the engagement directed), the extent to which the engagement behaviour is planned, and the fit between customers' and firm's goals. While considerable attention has been directed to WOM activity in the business marketing literature, the motives underlying WOM communication remain a relatively unexplored area (Sundaram et al., 1998) and further empirical enquiry is needed (Mazzarol, Sweeney, & Soutar, 2007). Parting from the study conducted by Dichter (1966) who established that product involvement (to relieve tension or excitement provoked by the use of a product), self-enhancement (to attract attention, demonstrate connoisseurship, seek reassurance from others), other involvement (to help others) and message involvement (to share exposure to unique or intriguing advertisement or selling appeals) are important motivations for incurring in positive WOM activity, Sundaram et al. (1998) found that consumers engage in positive WOM for altruistic (doing something for others without anticipating any reward in return), helping the firm, product involvement (to vent the positive feelings created by products that are highly relevant and evoke excitement), and self-enhancement (to show connoisseurship, portray expertise, improve status, seek appreciation) reasons; and in negative WOM for altruistic, anxiety reduction, vengeance, and advice seeking reasons. Additionally, the authors point out that a significant relation between motives to engage in WOM activity and consumption experiences exist. In other offline experimental research, self-enhancement has been discussed as an important motivator of WOM. For instance, consumers who search for self-enhancement and link the self to more optimistic outcomes generate WOM (Kozinets, de Valck, Wojnicki, & Wilner, 2010).

The importance of relationship quality in inducing WOM has been generally accepted (Palmatier, Dant, Grewal, & Evans, 2006) and several relational constructs have also been identified as antecedents of WOM activity. Different researchers have been interested in studying WOM as an outcome of satisfaction (de Matos & Vargas-Rossi, 2008) whereas other studies consider constructs that represent consumers' experience with products as predictors of behaviours that reflect the relationship with the firm (Garbarino & Johnson, 1999). For example, constructs such as perceived quality, perceived value, trust and commitment, could be expected to be strong antecedents of WOM activity (Samson, 2010). In fact, de Matos and Rossi (2008) found commitment as the strongest correlate of WOM among other constructs including satisfaction and brand loyalty. Samson (2010) points out that such analysis did not include product involvement as an important antecedent of WOM activity and thus, incorporated involvement in his study. The researcher found that higher levels involvement lead to higher levels of WOM activity.

The exploration of customers' motivations to incur in online interactions has taken place in diverse contexts. In fact, several studies have shown that motives such as utilitarian, hedonic, social-psychological, and identity benefits drive such interactions. For example, in online auction sites, consumers engage in online C2C interactions based on utilitarian, hedonic and social benefits (Abdul-Ghani, Hyde, & Marshall, 2011). In parallel to the findings of Sundaram et al. (1998), online interactions were found to be mainly caused by a person's desire for self-enhancement, concerns for other customers, economic benefits and social interaction incentives (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Furthermore, social-psychological, identity, and utilitarian motives are positioned as the most important motives for posting electronic WOM (Brown, Broderick, & Lee, 2007). Other authors have discussed the impact of

online social networks in transforming WOM theory. As customers have become actors in virtual social systems, specific motives to generate WOM have been discussed. These include keeping up to date with other known individuals, reputation, sense of belonging, the desire of influencing others about personal brand choices, and self-expression (Cheung & Lee, 2012; Wallace, Buil, & de Chernatony, 2014)

The previous discussion shed light into some of the motivations of WOM activity in both online and offline business environments. In the context of sports, very limited empirical research that treats WOM activity as a focal construct has emerged. While it has been found that sports consumers with higher levels of commitment and brand-identification, which are major components of our self-connection construct in relationship quality, generate specific supportive behaviours including positive WOM (Madrigal & Chen, 2008), the study of motivational drivers of WOM activity in this setting is almost inexistent. Shreffler and Ross (2013) emphasize this and state that WOM activity must be examined separately in this context because of the distinctiveness of sports consumers. Such distinction is accentuated by the way sports consumers are usually highly involved and willing to sustain a long-term connection with their own sports equipment or other types of sports-specific brands including clubs, institutions, celebrities, events, and media brands (Bouchet et al., 2013; Mullin, Hardy, & Sutton, 2007). Additionally, sport brands have important symbolic dimensions (shared only by other few categories e.g. arts or entertainment) that have a strong impact on the values, attitudes and behaviours of sports actors and fans (Bouchet et al., 2013; Holbrook & Hirschman, 1982).

In view of the existing gaps in the literature and in accordance to the aim of this dissertation, what motivates tennis players to generate word of mouth (WOM) activity

as well as to interact online in relation to the tennis racket brand they use will be explored. Apart from the direct impact of Product Involvement and Sensory Brand Experience on WOM activity and online interactions, other variables that have the potential to cause an interaction effect on these relationships are examined.

Chapter 3

Theoretical Framework

This theoretical framework is constructed upon the incorporation of literature and real life experiences (Eisenhardt, 1989). In brief, after generally discussing the importance of involvement and experience with sport products, four main components that are hypothesized to have an impact on WOM activity are discussed. These factors include product involvement and sensory brand experience as independent variables. As well as the new construct of brand engagement in self-concept (BESC), frequency of playing tennis is proposed to moderate the effect of product involvement and sensory brand experience on WOM activity. Finally, level of playing tennis is also considered as an important control variable in the hypothesized causal model.

Sport products and sports consumers

Sport consumers attach great value to sport brands as these provide them with memorable thoughts of glory, stories, symbols, imaginary contents and other valuable associations that make them unique. Actually, sport branded-products, here described as a good, service, or combination of both that is made to deliver benefits to a sports spectator, participant, or sponsor (Shank, 2009), are exceptional in the meanings they convey as well as in the way that end users attribute symbolic, social, and highly experiential value to them (Bouchet et al., 2013). Attracting elevated interest and perceived as principal to the value system, sport branded-products evoke high levels of involvement (Holbrook & Hirschman, 1982); in experiencing the tangible aspects of sport branded products in an active and direct fashion, sport participants confer great importance to such objects as they, in many instances, become central to the user lifestyle (Bloch et al., 1989).

3.1 Product Involvement

Over the last three decades, product involvement has been considered an important concept as it contributes to explain a substantial proportion of consumer purchase choices (Taylor & Benoy, 1984). The construct has been defined in different ways in the consumer behaviour literature where it has been found that product involvement reflects consumers' interest or personal relevance in relation to the object (Laurent & Kapferer, 1985; Zaichkowsky, 1985). For instance, involvement has been found to be at the core of the "person-object relationship" and one of the most predictive variables of purchase behaviour (Evrard & Aurier, 1996). Other studies have paralleled involvement with a consumer's decision-making process, belief system, brand loyalty, and product identification (McGehee, Yoosltik, & Cárdenas, 2003).

Furthermore, the involvement construct has been studied from different perspectives such as consumers' individual characteristics, product features, and the situation the product is being used at (Traylor & Benoy, 1984). Prior research has categorized high-involvement and low-involvement products based on different factors such as information processing and the level of risk perceived by consumers (Meyers-Levy & Maheswaran, 2004; Xue & Phelps, 2013). For example, tennis rackets can be considered as high-involvement products since wrong purchase decisions have not only financial but also sport performance implications for the user. Also, tennis rackets have become more complex (Kim, 2009) and players often spend a substantial amount of time searching for the racket that fits them best. The difference in product type and extended information search behaviour suggests that consumers may engage in more WOM activity for high-involvement products and WOM communications have greater

influence on consumer perceptions and purchase decisions for these kinds of goods (Gu, Park, & Konana, 2012).

In the sport and leisure literature, involvement has become a prominent construct (Havitz & Dimanche, 1990). Although most of the research that considers involvement within these settings has been directed to the area of sport spectatorship, the construct has also been most relevant in sport participation research. Illustrations include studies that used the construct in measuring participation in golf and basketball (Shank & Beasley, 1998), segmenting sport participants (Kyle, Kerstetter, & Guadagnolo, 2002), investigating the role of equipment involvement in different conceptual relationships using running participants (Bloch et al., 1989).

In studying involvement within the sports setting, many researches have employed Zaichkowsky's (1985) conceptualization of involvement (McGehee et al., 2003).

Accordingly, this study follows Zaichkowsky's (1985) definition of involvement as:

“a person's perceived relevance of the object based on inherent needs, values, and interests” (p. 342).

In alignment with this definition, Bloch et al. (1989) conceptualize *equipment involvement* as the degree of personal relevance that an individual attach to sports products or equipment. The authors assert that the term involvement must be understood as reflective of the perceived importance of a good to a specific person rather than considering its importance in a literal manner. As an example, they point out that tennis gear can occupy a player's thoughts and attentiveness, yet tennis products are not essential to live. In their study, the authors found that equipment involvement in the sport setting is linked to behavioural outcomes including levels of product expenditure and most pertinently, opinion leadership.

The involvement construct has also been considered in a variety of customer engagement models. Several conceptual papers designate involvement as an antecedent that necessarily precedes the expression of a customer's level of engagement (Brodie et al., 2011; Hollebeek, 2011a). Also, the theoretical model of Vivek et al. (2010) posits that customer engagement is positively associated with involvement and customer participation as its antecedents, and variables such as word-of-mouth (WOM) are potential consequences. Finally, Bowden's (2009) conceptual framework of customer engagement suggests that besides commitment and trust, involvement plays a key role in the creation of engaged and loyal customers.

Based on the above discussion, it is hypothesized that:

***H1a.** Product Involvement has a direct impact on the Intensity dimension of WOM activity.*

***H1b.** Product Involvement has a direct impact on the Positive Valence dimension of WOM activity.*

***H1c.** Product Involvement has a direct impact on the Content dimension of WOM activity.*

***H1d.** Product Involvement has a direct impact on Online Interaction activity.*

3.2 Brand Experience

Consumer research has demonstrated that experiences occur when consumers interact with products while searching for them, shopping them, and consuming them (Hoch, 2002). Such interaction can either be direct when physical contact with the product takes place e.g. testing a car by driving it, or indirect when the experience of a product occurs in a virtual space or through a communication medium e.g. being exposed to a T.V. add or evaluating a product online (Hoch & Young-Won, 1986). In terms of brand-usage behaviour, there is a clear distinction between purchasing and consuming direct experiences (Boyd & Levy, 1963). While shopping experiences occur in a number of ways like when consumers interact with a store's atmospheric cues, consumption experiences take place when consumers use and consume products.

Highlighting the symbolic, aesthetic and hedonic dimensions of the consumption experience, Holbrook & Hirschman (1982) sustain that the hedonic aspect of the consumption experience results in fun, fantasies and feelings that emanate from a product. Besides utilitarian product functions and attributes, which have attracted a wide variety of marketing research on experiences, the authors make point of the importance of aesthetic aspect of a product to the consumption experience. Expanding on this, Brakus et al. (2009) adopt a brand perspective and discuss different brand-related stimuli to which consumers are exposed to and that are central to the consumption experience too. These stimuli comprise brand specific colours, graphics, typefaces, background design features, slogans, brand characters and other stimuli that are part of a brand's design and identity, packaging, marketing communications, and the environment they are sold at. In brief, they conceptualize brand experience as:

“...subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioural responses evoked by brand-related stimuli that are part of a

brand's design and identity, packaging, communications, and environments" (p. 53).

Drawing from philosophical investigations, cognitive science and applied writings on experience marketing and management, Brakus et al. (2009) present four dimensions of brand experience including sensory (aesthetic and sensory qualities), intellectual (analytical and imaginative thinking), emotional (moods and emotions) and behavioural (motor actions) experience. With regards to the sensory dimension, brands are experienced via all consumers' senses: vision, hearing, touch, taste and smell (Schmitt, 1999). Furthermore, this particular dimension plays a key role in differentiating brands and adding value to their products. At present, most goods tend to deliver the utilitarian function they promise hence consumers are tending to choose brands according to aesthetic value, design and other tangible features that make their products distinctive (Bloch, Brunel, & Arnold, 2003).

Apart from functional characteristics such as signal recognition, quality assurance, choice pragmatism and optimisation, sensorial aspects are fundamental to the experience of sport brands; in this context, the sensorial dimension consists of those tangible characteristics of sport brands that can be experienced via all consumers' senses (Bouchet et al., 2013). The high relevance of this dimension is well reflected in the fact that sports experiences have a strong influence in all human senses; in particular to sports participants who experience the brand directly (Bouchet et al., 2013). In tennis for instance, players experience their racket brand through the feel of the grip, the sound of hitting the ball, the feel of swinging the racket and the tension of the strings, the distinctive materials, colours, size and other characteristics that influence the racket appearance.

In the marketing literature, empirical research has shown the relevance of Sensory Brand Experience in generating behavioural outcomes. Brakus et al. (2009) found that Sensory Brand Experience has a positive impact on brand satisfaction and other brand loyalty behaviours such as recommending a brand. In a recent study, similar results were found as Sensory Brand Experience had a positive effect on brand personality, brand satisfaction, and brand loyalty (Nysveen, Pedersen, & Skard, 2013). In light of this, the following is hypothesized:

H2a. Sensory Brand Experience has a direct impact on the Intensity dimension of WOM activity.

H2b. Sensory Brand Experience has a direct impact on the Positive Valence dimension of WOM activity.

H2c. Sensory Brand Experience has a direct impact on the Content dimension of WOM activity.

H2d. Sensory Brand Experience has a direct impact on Online Interaction activity.

3.3 Brand engagement in self-concept (BESC)

As mentioned before, sport brands' products derive value from their instrumental and symbolic functions. While instrumental value is centred in the product's ability to generate enjoyment or to improve the user's performance in the environment, the symbolic value is particularly important in sport products as it is seen as a social-shared

construction, a stimulus associated to a learnt meaning that facilitates self-expression (Bloch et al., 1989). This conception is well reflected in Bouchet's et al. (2013) argument that sport brands' products play a lively role in the valorisation of the self-concept and can convey a platform that provides sense to consumers' existence in reaching personal, social, and cultural goals. Essentially, the authors emphasize that sport brands as well as other symbols and signs, have an impact on individuals' self-concept as they are used to manage individuals' image and identity as sport participants, to affirm people's belonging to a specific sport community, and to affirm a positive or distinctive role or position. Bloch et al. (1989) discuss the facet of sport products in symbolizing an ideal social role and state the use of sports products signifies to others that the participant has an important leisure identification. According to this view, the symbolic content of the sport brand in use is transferred to the sports actor and consequently he or she is expected to attach value to links between the brand and the self.

Most recently, Sprott et al. (2009) presented a construct that views customer-brand engagement in relation to the self and provided new insights into the proposition that consumers create links between particular brands and their self-concepts. Building on self-schemas, the authors indicate that *brand engagement in self-concept* (BESC) refers to an individual difference denoting consumers' tendency to incorporate important brands as part of how they view themselves. One of the main assumptions of the BESC construct is that consumers differ in their inclination to adopt brand-related schemas and such differences are associated with variances in brand-related consumer attitudes and behaviours. The construct was demonstrated to influence brand knowledge, attention, preference and loyalty, variables that, along with other relevant constructs such as customer satisfaction have been predominant in other studies of customer engagement.

Considering the symbolic dimension of sport branded products, and the fact that links between the self-concept and a particular sport brand such as a team can have an impact on certain behaviours including WOM activity (Madrigal & Chen, 2008; Yu Kyoum & Trail, 2011), it is contended that differences in consumers' tendency to include important brands as part of their self-concepts (BESC) will have a moderating effect on the impact of Product Involvement and Sensory Brand Experience on WOM activity and online interactions in this particular setting. Also, this contention takes into account the substantial theoretical and empirical support that the relationship between customer satisfaction, which is considered as an antecedent of customer engagement behaviours (van Doorn et al., 2010), and behavioural outcomes are moderated by customer characteristics (Cooil, Keiningham, Aksoy, & Hsu, 2007). Thus, the following is hypothesized:

H3: Product Involvement and BESC

H3a. *The effect of Product Involvement on the Intensity dimension of WOM activity is contingent upon BESC.*

It is expected that the relationship between Product Involvement and the Intensity dimension of WOM activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Product Involvement and WOM Intensity.

H3b. *The effect of Product Involvement on the Valence dimension of WOM activity is contingent upon BESC.*

It is expected that the relationship between Product Involvement and the Positive Valence dimension of WOM activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Product Involvement and WOM Positive Valence.

***H3c.** The effect of Product Involvement on Content dimension of WOM activity is contingent upon BESC.*

It is expected that the relationship between Product Involvement and the Content dimension of WOM activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Product Involvement and WOM Content.

***H3d.** The effect of Product Involvement on Online Interaction activity is contingent upon BESC.*

It is expected that the relationship between Product Involvement and Online Interaction activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Product Involvement and Online Interaction activity.

H4: Sensory Brand Experience and BESC

H4a. *The effect of Sensory Brand Experience on the Intensity dimension of WOM activity is contingent upon BESC.*

It is expected that the relationship between Sensory Brand Experience and the Intensity dimension of WOM activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Sensory Brand Experience and WOM Intensity.

H4b. *The effect of Sensory Brand Experience on the Valence dimension of WOM activity is contingent upon BESC.*

It is expected that the relationship between Sensory Brand Experience and the Positive Valence dimension of WOM activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Sensory Brand Experience and WOM Positive Valence.

H4c. *The effect of Sensory Brand Experience on Content dimension of WOM activity is contingent upon BESC.*

It is expected that the relationship between Sensory Brand Experience and the Content dimension of WOM activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Sensory Brand Experience and WOM Content.

H4d. *The effect of Sensory Brand Experience on Online Interaction activity is contingent upon BESC.*

It is expected that the relationship between Sensory Brand Experience and Online Interaction activity will become stronger or weaker depending on the individuals' likeliness to consider brands as part of their self-concept (BESC). Basically, it is anticipated that BESC will have a significant interaction effect on the relationship between Sensory Brand Experience and Online Interaction activity.

3.4 Frequency of Playing Tennis

A key aspect of recreational commitment or commitment to a particular sport or leisure activity is a consistent devotion of time and energy to the activity (Buchanan, 1985).

While some individuals have a tendency to practice a sport once or twice a week, others would allocate more weekly hours/days to the activity depending on different goals they may have. For instance, a tennis player (who necessarily uses his/her tennis racket to play the sport) could play once a week as a means to meet up with friends whereas another player would allocate six days per week in order to improve his ranking or perform well in a particular tournament. Bloch et al. (1989) found that commitment to a particular sport (i.e. running), which is reflected in time spent, positively influences the perceived importance and the level of knowledge pertaining to the equipment used in the sport. Further on, the researchers revealed that perceived importance of sports equipment and equipment knowledge are positively related to opinion leadership regarding the equipment. Other studies have also highlighted frequency of participating in the sport as an important measure. For instance, the study conducted by Casper et al. (2007) illustrates this point. Studying adult tennis players, the researchers demonstrated a significant positive relationship between psychological commitment to the sport and frequency of playing tennis.

Other contexts have also found a link between product involvement and behavioural patterns, such as a frequency of using a particular product. Because playing tennis necessarily implies using a tennis racket, this stream of research is relevant. Holmes & Lett (1977) found that usage rates had an effect on the number of discussions started by product users as well as an impact on brand attitudes and opinion leadership. In the diffusion of new products, Iyengar et al. (2010) proposed that a frequent user of a more complex product tends to be more eager about dispersing the word about it and may be perceived as a more credible source too. Finally, within the fast moving consumer goods (FMCG) sector, frequency of product usage was found to have an influence on WOM activity (Samson, 2010).

Having discussed a stream of research that found variations in the influence of frequency of product usage on WOM activity as well as on the relationship between recreational commitment and opinion leadership in the sports context, the following is hypothesized:

H5: Product Involvement and Frequency of Playing Tennis

H5a. *The effect of Product Involvement on the Intensity dimension of WOM activity is contingent upon Frequency of Playing Tennis.*

It is expected that the relationship between Product Involvement and the Intensity dimension of WOM activity will become stronger or weaker depending on how frequently participants play tennis. . Considering that tennis players will incur in more conversations about tennis factors (including their tennis rackets) based on the time they spend playing the sport, it is anticipated that Frequency of Playing Tennis will have a significant interaction effect on the relationship between Product Involvement and

WOM Intensity. It is also likely that a player who tends to play more often presents higher levels of involvement in relation to his/her racket and therefore the relationship between Product Involvement and another variable can be affected by how frequently a tennis player uses his/her racket.

***H5b.** The effect of Product Involvement on the Positive Valence dimension of WOM activity is contingent upon Frequency of Playing Tennis*

It is expected that the relationship between Product Involvement and the Positive Valence dimension of WOM activity will become stronger or weaker depending on how frequently participants play tennis.

***H5c.** The effect of Product Involvement on the Content dimension of WOM activity is contingent upon Frequency of Playing Tennis.*

It is expected that the relationship between Product Involvement and the Content dimension of WOM activity will become stronger or weaker depending on how frequently participants play tennis.

***H5d.** The effect of Product Involvement on Online Interaction activity is contingent upon Frequency of Playing Tennis.*

It is expected that the relationship between Product Involvement and Online Interaction activity will become stronger or weaker depending on how frequently participants play tennis.

H6: Sensory Brand Experience and Frequency of Playing Tennis

***H6a.** The effect of Sensory Brand Experience on the Intensity dimension of WOM activity is contingent upon Frequency of Playing Tennis.*

It is expected that the relationship between Sensory Brand Experience and the Intensity dimension of WOM activity will become stronger or weaker depending on how frequently participants play tennis. Considering that a tennis player will experience his/her tennis racket brand differently in relation to the spent time using it, it is anticipated that Frequency of Playing Tennis will have a significant interaction effect on the relationship between Sensory Brand Experience and WOM Intensity. It is also likely that a player who tends to play more often experiences the brand more intensely and therefore the relationship between Sensory Brand Experience and another variable can be affected by how frequently a tennis player uses his/her racket.

H6b. *The effect of Sensory Brand Experience on the Positive Valence dimension of WOM activity is contingent upon Frequency of Playing Tennis*

It is expected that the relationship between Sensory Brand Experience and the Positive Valence dimension of WOM activity will become stronger or weaker depending on how frequently participants play tennis.

H6c. *The effect of Sensory Brand Experience on the Content dimension of WOM activity is contingent upon Frequency of Playing Tennis.*

It is expected that the relationship between Sensory Brand Experience and the Content dimension of WOM activity will become stronger or weaker depending on how frequently participants play tennis.

H6d. *The effect of Sensory Brand Experience on Online Interaction activity is contingent upon Frequency of Playing Tennis.*

It is expected that the relationship between Sensory Brand Experience and Online Interaction activity will become stronger or weaker depending on how frequently participants play tennis.

Control Variable: Tennis Level

Based on the hypotheses previously described, Figure 1 presents a conceptual model that incorporates the pertinent variables and the proposed relationships amongst them. In addition, skill level of playing tennis is included in the model as a control variable. Actually, distinct standardized tennis skill-level classifications exist for males and females. The United States Tennis Association (USTA), applies the National Tennis Rating Program (NTPR) to classify players from beginners to professionals based on standard stroke and game characteristics (USTA, 2014). Previous research has found psychological differences in tennis players respective of their skill levels. For example, as tennis level increases, it was found that self-confidence and interpretations of competitive trait anxiety progressively intensify (Perry & Williams, 1998). Other stream of research has found that sports actors of varying skill levels consider different information when building efficacy beliefs as well as they experience the activity differently in relation to their perceived and actual skill levels (Bruton, Mellalieu, Shearer, Roderique-Davies, & Hall, 2012). Thus, it is assumed in this study that tennis players will present important differences in their involvement with the racket they use, how they experience the brand, and some other differences in behavioural manifestations in relation to their tennis racket, according to their skill level.

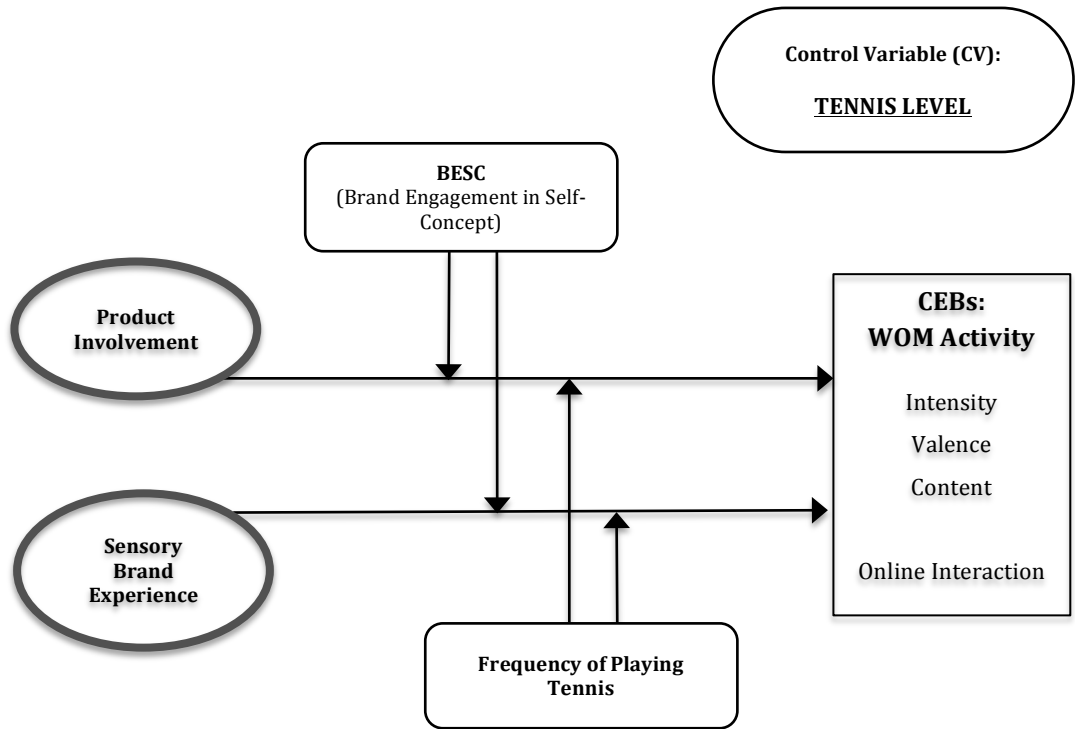


Figure 1 – Conceptual Model

Chapter 4

Methodology

This section explicates the methodology employed to test the presented conceptual model in the previous chapter. The factors that motivate players to engage in WOM activity and online interactions in relation to the racket brand they use and the moderating and control variables impacting these relationships is also covered. Moreover, this section explains how each of the constructs in the model is operationalized, the way whereby the questionnaire for data collection was used, the method employed for collecting the data, and the conduction of statistical analyses.

4.1 Measurement of the variables

While measures for most of the constructs in this research were adopted from past peer reviewed empirical studies that had been used by other researchers and corroborated for validity and reliability, variables that are specifically related to tennis were developed using the opinion of active tennis players as well as the system employed by both New Zealand Tennis (TennisNZ, 2014) and the National Tennis Rating Program (NTRP) that is used by the United States Tennis Association (USTA) in determining the tennis level of actual players (USTA, 2014).

4.1.1 Product Involvement

As discussed in the previous chapter, the construct of product involvement is conceptualized in this dissertation based on the definition of Zaichkowsky's (1985) that reflects on an individual's perceived relevance of a particular object as a consequence of

intrinsic needs, values, and interests. In broader terms, Zaichkowsky's (1985) personal involvement inventory (PII) scale measures what the product, in this case a tennis racquet, means to a particular respondent. Apart from the context-free characteristic of the scale, it is also applicable in the sports context as was demonstrated by Bloch et al. (1989). For this reason, product involvement was measured using a set of twelve semantic differential scale items adopted from Zaichkowsky (1985). The original scale was consisted of twenty items and reported Cronbach alpha values of 0.95 to 0.97 over four product categories. As suggested in the original study, all items utilized a seven-point semantic differential scale and in several instances the items were reversed. The used items used in this study included: "important / unimportant", "of no concern to me / of high concern to me", "irrelevant / relevant", "valuable / worthless", "trivial / fundamental", "beneficial / not beneficial", "uninterested / interested", "significant / insignificant", "vital / superfluous", "boring / interesting", "undesirable / desirable", and "wanted / unwanted". As suggested in the original study, some items were revers coded and the following introductory line was presented: *"To me, my tennis racket is:"*.

4.1.2 Sensory Brand Experience

In order to measure the strength with which the tennis racket brand arouses sensory experiences, three items were adopted from Brakus et al. (2009). The original study reported Cronbach alpha value of 0.83 for the sensory items. All items were measured on a 7-point Likert-type scale that indicated how descriptive the item was for the respondent, ranging from "not at all descriptive" to "extremely descriptive". The following three items were used: "This brand makes a strong impression on my visual or other senses", "I find this brand interesting in a sensory way", and "This brand does not appeal to my senses".

4.1.3 Brand Engagement in Self-Concept (BESC)

In order to measure the respondents' tendency to incorporate important brands as part of their self-concepts, BESC was measured using the eight-item scale developed by Sprott et al. (2009). The original study established reliability of 0.94. The items retained are presented in Table 3. All items were anchored on a 7-point Likert-type scale indicating the extent to which the respondents agree or disagree with each of the statements, ranging from "strongly disagree" to "strongly agree". The scale items used to measure this construct included: "I have a special bond with the brands that I like", "I consider my favourite brands to be a part of myself", "I often feel a personal connection between my brands and me", "Part of me is defined by important brands in my life", "I feel as if I have a close personal connection with the brands I most prefer", "I can identify with important brands in my life", "There are links between the brands that I prefer and how I view myself", and "My favourite brands are an important indication of who I am".

4.1.4 Word-of-mouth (WOM) activity

This construct is measured using adapted items from Goyette's et al. (2010) WOM scale. While other few studies have developed WOM activity scales that meet standards of reliability (Bone, 1992; Harrison-Walker, 2001; Kim, Han, & Lee, 2001; Ranaweera & Prabhu, 2003), the researchers' measurement scale fitted this study as the instrument was developed in the context of e-services, which in similarity to sports equipment, the use of personal sources of information is an important factor in the consumers' purchasing decisions (Murray, 1991). Additionally, Goyette's et al. (2010) instrument combines four WOM dimensions: WOM intensity (3 items), positive valence WOM (6 items), negative valence WOM (2 items), and WOM content (8 items); each dimension reported a reliability of 0.69, 0.89, 0.82, and 0.80, respectively.

Due to the unique aspects of the sport context, tennis in particular, most of the items were carefully modified in a way that made sense to active tennis players. Specifically, the content dimension items had to be changed so to match the tennis context; after casually interviewing several New Zealand tennis players ranging from 18 to 55 years old, from beginners to more advanced players, and two professional tennis coaches, some topics that tennis players tend to discuss about their tennis rackets were identified. Also, other items seemed not to apply to this particular setting and therefore were dropped. For instance, the negative valence WOM items were not considered as it could be inferred that tennis players use a tennis racket they are satisfied with. Each item was attached to a 7-point scale ranging from “Completely Disagree” to “Completely Agree”. Table 1 shows the items used for each dimension in both the original and modified forms.

Table 1 – Word-of-Mouth (WOM) adapted items

WOM Intensity	
Original items	Modified items
I spoke of this company much more frequently than about any other e-services company.	<i>I speak of the racket brand I play tennis with much more frequently than about any other tennis racket brand.</i>
I spoke of this company much more frequently than about companies of any other type.	<i>I speak of the racket brand I play tennis with more frequently than about brands of any other type.</i>
I spoke of this company to many individuals	<i>I speak of the racket brand I play tennis with at the tennis club or at other tennis events such as tennis competitions.</i>
I spoke of this company to many individuals	<i>I speak of the racket brand I play tennis with outside of the tennis club or other tennis events.</i>
Positive Valence WOM	
Original items	Modified items
I recommend this company.	<i>I have verbally recommended the racket brand I play tennis with to others</i>
I speak of this company's good sides.	<i>I usually speak about the good sides of the racket brand I play tennis with.</i>
I am proud to say to others that I am this company's customer.	<i>I proudly say to others that I play with the tennis racket brand that I use.</i>
WOM Content	
Original items	Modified items
I discuss user-friendliness of its website	<i>I discuss issues in relation to my tennis racket such as spin, power and control.</i>
I discuss security of transactions and its internet site	<i>I discuss issues in relation to my tennis racket such as the head size, string pattern, weight, stringing tension, and grip size.</i>
I discuss the prices of products offered	<i>I discuss issues in relation to my tennis racket such as manoeuvrability, stability, solidness, flexibility or rigidity.</i>
I speak of the rapid delivery	<i>I discuss issues in relation to the materials and new technological advances (such as composite graphite, carbon or other fibres, aerogels, etc.) my tennis racket is designed with.</i>
I discuss the variety of products offered	<i>In relation to the tennis company (e.g.</i>

WILSON, etc.) that manufactures my tennis racket I discuss the variety of racket models and other products such as strings, grips, clothing and other items the company offers.

4.1.4.1 Online interaction

Formal procedures were followed in order to generate the online interaction scale (Netemeyer, Bearden, & Sharma, 2003). The development of the scale-items was based on published, theoretical notions of customer engagement behaviours. Firstly, in-depth interviews with several New Zealand tennis players ranging from 18 to 55 years old, both genders, from beginners to more advanced players, and two professional tennis coaches, were conducted. After examining the qualitative data gathered in this investigation, frequently mentioned descriptions of common online engagement behaviours in relation to tennis racket brands were converted into items. Identified online activities with a brand focus included visiting the racket brand's website, posting brief comments in social media sites such as Facebook and Twitter, posted "likes" or other ratings in online sites such as Facebook, YouTube, Tennis-Warehouse.com and TennisExpress.com, and visiting online sites to read and provide product reviews in particular online sites. The players were also asked about being part of a tennis online community and if they had a blog; all the interviewees responded negatively. Based on this, eight items were created in order to measure the tennis players' online interacting behaviours that were centred on the racket they used.

Following Netmeyer et al. (2003), the content validity of the items was examined in two stages. First, two marketing Professors were given a relevant description of the item and the proposed item. They were asked to judge the items in terms of applicability. After eliminating four items that were considered as not applicable, four items remained. The

second panel of judges, 12 active tennis players from both genders between 20 and 50 years, ranging from low to high skill levels were also provided with a relevant description of the items as well as the items as such. They were asked about the applicability of the items. Accordingly, all items were considered representative of online behaviours that tennis players incur in relation to tennis rackets. A seven-point Likert-type scale was used for measuring the online interaction items, ranging from “Completely Disagree” to “Completely Agree”. The items include “I visit the racket brand’s website I play tennis with”, “I have posted comments in relation to my tennis racket in social media sites such as Facebook, Twitter, or others”, “I have posted “likes” or other ratings in relation to my tennis racket in online sites such as Facebook, YouTube, Tennis-Warehouse, TennisExpress, or others”, and “I have given product reviews of my tennis racket in an online site”.

4.1.4 Frequency of Playing Tennis

Frequency of playing tennis was measured on a weekly basis as this is usually the way wherein active tennis players express how much time they dedicate to the sport (USTA, 2014). It is also noted that different research institutions including those independent and governmental, use days per week as a measure of sport participation and physical activity (Tennis-Industry-Association, 2013) and previous studies have used the same measure (Casper, Gray, & Babkes Stellino, 2007). For this reason, a multiple choice, single-answer question was provided: “in average, how many days per week do you play tennis?” Seven options were offered ranging from “1 day p/week” to “7 days p/week”.

4.1.5 Tennis Level

The skill level of each respondent was measured using three different multiple choice, single-answer questions. All questions measuring tennis level were based on the 7.0-point scale (“1.0 = beginner level” to “7.0 = professional level”) used by the United States National Tennis Rating Program (NTRP) (USTA, 2014). The main tennis association in the United States (USTA) has been using the NTRP tennis level scale for many years with the aim of helping all tennis players in enjoying the game by providing a method of classifying skill levels for more compatible matches, league play, group lessons, tournaments and other programs (USTA, 2014). Also, the NTPR tennis level scale has been used in several sports marketing peer reviewed research publications (Casper et al., 2007).

Based on the NTRP 7.0-point scale, three questions that reflected the tennis skill level of New Zealand tennis players. Those questions were aim to provide a good approximation of each player’s skill level by considering the New Zealand Tennis competition grading system as well as New Zealand players’ rating structure. In all three questions, players’ skill levels were classified as “low”, “medium-low”, “medium-high”, and “high”.

4.1.5.1 Tennis Grade according to Auckland Interclub Competition

The first question was about the tennis grade that the respondents usually compete at. The most common competition for active tennis players in Auckland, New Zealand, is the interclub competition and it includes different grades depending on the ranking of the participants (Tennis-Auckland, 2014). On this basis, the following question was provided: *“If you participate in interclub competition, what grade do you usually*

compete at? (Please tick one). In case you don't play interclub competition, please go to the following question". Table 2 is comprised of three sections including the coded value, competing tennis grade, and the allocation to a particular tennis level category. It basically shows how this question measures the tennis level of tennis players in Auckland according to the interclub tennis grade they compete at.

Table 2 – Interclub Tennis Grade Auckland Players

Auckland Interclub – Tennis Grade		
Coded Value	Grade	Tennis Level Category
1	Carobowl	
2	Carobowl Reserve	HIGH
3	Ferrier Cup	
4	First Grade	
5	Second Grade	MEDIUM-HIGH
6	Presidents A	
7	Open 1 or Open 2	
8	Open Presidents 1 or 2	MEDIUM-LOW
9	Open 3 or Open 4	
10	Open Presidents 3 or 4	
11	Open Men's 5 to 10	LOW
12	Open Presidents 5 or 6	

4.1.5.2 Tennis Level according to Tennis New Zealand Grading System

Considering that some players chose not to play interclub competition but do play or have played other singles and/or doubles tournaments, the second question measuring the skill level of Auckland and other players from different parts of New Zealand. To this end, Tennis New Zealand *Configure-Rankings* system was employed (TennisNZ, 2014). Configure Rankings is a grading list of all competitive tennis players in New Zealand. Irrespective of age, all players are in the same list, however there are two separate lists for males and females. The system is based on results in face-to-face

matches. The number of points a player has reflects their grade on a scale of 1 to 12, where 1 is best. A player's position in the grading table is based on results in Interclub and Tournament matches: a winning match results in gaining points and vice versa. Whenever a player's points move into the range of the next grading (lower or higher), he automatically moves up or down to the pertinent grade. Again, a multiple choice, single-answer question was asked to participants: *"From the options below, choose the one that best describes your tennis grade. (Please tick one)"*. Since some tennis players play singles or doubles matches, or both, respondents were given the option of indicating their tennis grade in doubles or singles.

Similar to the interclub tennis grade, Table 3 is consisted of three sections including the coded value, the tennis player's grade in New Zealand, and the allocation to a particular tennis level category accordingly. It principally shows how this question measures the tennis level of tennis players in New Zealand based on to the results achieved in different competitions.

Table 3 – New Zealand Tennis Grade

New Zealand – Tennis Grade		
Coded Value	NZ Grade Singles (S) – Doubles (D)	Tennis Level Category
1	S1 – S3	HIGH
2	D1 – D3	
3	S4 – S6	MEDIUM-HIGH
4	D4 – D6	
5	S7 – S9	MEDIUM-LOW
6	D7 – D9	
7	S10 – S12	LOW
8	D10 – D12	

4.1.5.3 Tennis Level according to the players' opinion

The last question measuring active tennis players' skill level was aimed to those players who opt not to participate in tennis competitions. At the same time, not all players know their New Zealand tennis grade. For this reason, the self-rating system employed by the NTRP was employed (USTA, 2014). Essentially, respondents were required to indicate their tennis level according to a seven-point scale ranging from "1 = beginner" to "7 = professional". Again, a multiple option, single-answer question was provided: "*In your opinion. What is your tennis level?*" Table 4 presents the coding procedure for this question.

Table 4 – Tennis Level based on the players' opinion

Coded Value	Level (Opinion Based)	Tennis Level Category
1	8	HIGH
2	7	
3	6	MEDIUM-HIGH
4	5	
5	4	MEDIUM-LOW
6	3	
7	2	LOW

4.2 Development of the Research Instrument

One questionnaire in two formats, a hardcopy and an online version that included the aforementioned measures were generated. The online questionnaire was created and launched using Qualtrics, which is an online platform that provides research tools for marketing research (Qualtrics, 2014). The questionnaire is presented in Appendixes 1. The instrument was comprised of five sections. Firstly, the respondents answered the questions about their tendency to include brands as part of their self-concepts. Then, in

order to generate some cognitive processing about the tennis racket brand used by the respondents, they were required to indicate both the brand and the specific racket model. Right after this, they completed the product involvement semantic differential scales. The third section included those questions related to Sensory Brand Experience. The different dimensions of WOM activity were measured in the following segment prior asking respondents about their tennis level and frequency of playing tennis. Lastly, demographic details such as gender, age, level of education, and ethnicity were collected.

4.3 Face Validity of the Instrument

It was important to implement a face validity of the instrument. Although most measures were adapted from existing literature, they were subject to reduction and some unavoidable variations. Moreover, tennis level has not been considered in previous studies conducted in New Zealand and therefore the measurement questions were developed based on real life experiences and information from highly recognized tennis authorities including Tennis New Zealand, Auckland Tennis, the United States Tennis Association, and the Tennis Industry Association (Tennis-Auckland, 2014; Tennis-Industry-Association, 2013; TennisNZ, 2014; USTA, 2014). So to determine that all items suited well the context of the study, face validity of the questionnaire was conducted. Before continuing to data collection all items were tested for understandability and accuracy of meaning. In order to make this assessment, the questionnaire was presented to two marketing Professors and three doctorate contestants in marketing. It was agreed that each scale was clearly measuring the construct it purported to assess. After this, 20 questionnaires were applied to active tennis players of different ages, tennis level, and gender. 10 hardcopy questionnaires as well as 10 online

questionnaires were used. All respondents indicated that the questionnaire was clear and that all questions were perfectly understood and easy to follow.

4.4 Sample and Data Collection Method

Given the aim of the study, a purposive sample of active tennis players in Auckland was adopted as this specific group was contemplated in the research (Bryman & Bell, 2011). Some minor demographic restrictions were applied as only adult active tennis players 18 years or older were considered. Mainly, this study was restricted to adults as junior sport participants are usually studied as a separate group in other sport studies (Casper et al., 2007). Also, all respondents were required to speak English fluently as it was critical that they had a clear understanding of each question. These criteria were simple to assess when conversing with potential respondents as well as it was expected that, given the specific target audience of the used online channels, all online questionnaires were responded by tennis players who spoke fluent English; online questionnaires completed by tennis players less than 18 years old were dropped.

A total of 250 printed questionnaires were distributed in different tennis clubs around Auckland. 98 questionnaires were completed at the tennis clubs whereas the rest of them were given to the participants to take home. A prepaid envelope was given to these respondents and 14 questionnaires were collected. The researcher recruited all the hardcopy version questionnaires. The application of the surveys was conducted in 22 Tennis Clubs around Auckland. This comprised clubs from Central, East, West, South, and North Auckland that were visited between the months of October 2013 and January 2014. Club managers were contacted and briefed about the nature of the study

one week before the surveys were administered. The approach to potential respondents was done mindfully in a way that nothing in relation to their tennis games was disturbed. For this reason, they were briefed about the nature of the study and told that there were no obligations to take part in it and that they could stop the survey at any time. To further ensure this, the option of taking the questionnaire with them and return it within a three-weeks period using a pre-paid envelope was given. In the case of a particular club, permission was asked to the manager and 50 questionnaires were left at the club to be filled by the interested members; these were collected after a couple of weeks.

With regards to the online questionnaires, the researcher sent a URL link to the instrument via direct e-mail to different players, club managers and tennis coaches. Included in the e-mail invitation was an explanation of the purpose of the study, the URL-link to access the survey, and the mention of an incentive (5 x iTunes online gift vouchers worth 10 nzd). The link to complete the online questionnaire was sent via direct email to 150 tennis players. In several cases, club managers send the link via direct email to their databases or through the tennis club weekly newsletter.

Additionally, Auckland Tennis, Tennis Northern and Tennis New Zealand communicated this version through the following channels: Passing Shots weekly newsletter, Facebook pages, and Tennis New Zealand weekly newsletter. The data collection was sustained until the minimum quantity of usable questionnaires was reached. The online questionnaire was opened 247 times from which 194 were completed. Overall, a total of 288 usable questionnaires were obtained.

4.5 Statistical analysis for validation of the instrument

The statistical analysis used to measure the adequacy of the research instrument is disclosed in this section.

4.5.1 Reliability

Reliability should be assessed once the theoretical model and its measurement has been established (Hair, Anderson, Tatham, & Black, 1992). Representing item-to-total correlation, Cronbach's alpha (Cronbach, 1951) was employed as a common measure for internal consistency (Hair et al., 1998) in this study. The alpha coefficient cut-off point is at the value of 0.70: a factor loading below 0.70 is usually rejected (Nunnally, 1978).

4.5.2 Validity

Test validity was conducted to ensure that the instrument items measure the constructs they are intended to assess. Every instrument developed for empirical research should pass a face validity, or a content validity test (Kidder & Judd, 1986). Essentially, the validity test is lead by a group of academic specialists in marketing and consumer behaviour so to evaluate the efficacy of the measuring instrument. Considering this, the adaptation of some the items, and the particular context of this study, a test of validity was carried in this research.

Each scale and construct configuration was then evaluated using exploratory factor analysis (EFA) (Spector, 1992). SPSS 20 software was used for such assessments.

4.6 Chapter Summary

The operationalization and measurement of the constructs considered in this study has been unveiled in this section. Also, the required reliability and face validity tests have been explained.

Chapter 5

Data Analyses and Results

This chapter contains the statistical analyses that were conducted to test the conceptual model proposed in chapter 3. The data was collected between 1 October 2013 and 16 January 2014. The sample characteristics are presented in the next section prior to discussing the reliability and validity of the measurements. Finally, the chapter shows the results about the hypothesized relationships between the variables including moderation tests.

5.1 Sample Characteristics

All respondents were tennis players who have been playing the sport actively for the past two years or more. The respondents' ages varied from 18 to 74 years old. 56% of these were male and 44% were female. Participants' tennis skill levels ranged from high level to low level as well as the frequency of playing tennis was between 1 and 7 days per week.

5.2 Reliability and Validity Analyses

Reliability tests were conducted for all scales. Utilizing a traditional correlation matrix or correlations among variables as the basic data input, correlations amongst the items of each scale were tested (Hair et al., 1992).

Table 5 – Sample Characteristics

	Frequencies	Percentages
Gender		
Male	159	56%
Female	127	44%
Age		
18 – 24 years old	68	24%
25 – 34 years old	61	21%
35 – 44 years old	60	21%
45 – 45 years old	54	19%
55 – 65 years old	29	10%
65 – 74 years old	16	5%
Tennis Level		
High	35	12%
Medium-High	72	25%
Medium-Low	92	32%
Low	89	31%
Frequency of Playing Tennis		
1 day per week	49	17%
2 days per week	72	25%
3 days per week	62	21%
4 days per week	45	16%
5 days per week	33	12%
6 days per week	24	8%
7 days per week	2	1%

Item-to-total correlations were used to remove the scale items that were not strongly associated and therefore performed weakly in maintaining the internal consistency of the construct. Thus, items with item-to-total correlation values below 0.30 were dropped from the construct (Spector, 1992). As discussed in the previous chapter, Cronbach alpha was also used to assess the reliability of each scale. Cronbach alpha for all the constructs met the cut-off point of 0.70.

5.3 Exploratory Factor Analysis (EFA) for Validity Testing

Factor analysis is a technique used to identify a smaller number of factors underlying a large number of observed variables (Gaur & Gaur, 2009). Exploratory Factor Analysis (EFA) was conducted using SPSS 20 to evaluate the validity of the scales by investigating the underlying dimensions that could have generated high correlations among specific variables. In order to test the convergent and discriminant validity of the measures, all the items of each scale were analyzed together. The scales' factors were extracted using Maximum Likelihood Estimation with Promax rotation. Following Hair et al. (1992), factor loadings represent the correlation between the original items and the factors of a particular construct whereas squared factor loadings indicate the percentage of the variance in an original variable that is explicated by a factor. In maximum likelihood analysis, factors must have an Eigen value greater than 1 to be regarded as significant. A minimum loading of 0.40 must be reached for an item for it to be loading on that factor. So to maximize the scale validity, it is also essential to identify and disregard cross-loading items that are loading in two or more factors. The analysis for each of the scales is discussed in the following paragraphs.

Product Involvement: EFA results show that this construct is explained by a single factor. All the 12 items loaded on this factor. Loadings varied from 0.53 to 0.89. The total variance explained by the factor was 55%. Reliability was indicated by a Cronbach alpha value of 0.92.

Sensory Brand Experience: EFA results show that this construct is explained by a single factor. However, the third item “this brand does not appeal to my senses” did not load on this factor and henceforth it was dropped from the construct. The two remaining

items presented loadings of 0.93 and 0.81 explaining 51% of the total variance. The correlation between the items was 0.75.

Brand Engagement in Self-Concept (BESC): EFA results demonstrate that this construct is explained by a single factor. However, the fourth item “part of me is defined by important brands in my life” did not load on this factor so it was discarded from the scale. The seven remaining items had loadings of 0.69 to 0.91. The total variance explained by the factor was 72%. Reliability was indicated by a Cronbach alpha value of 0.95.

WOM Intensity: EFA results show that this construct is explained by a single factor. All four items loaded in this factor. Loadings varied from 0.71 to 0.81. Reliability was indicated by a Cronbach alpha value of 0.86. The total variance explained by the factor was 62%.

WOM Positive Valence: EFA results show that this construct is explained by a single factor. All three items loaded in this factor. Loadings varied from 0.78 to 0.83. Reliability was indicated by a Cronbach alpha value of 0.84. The total variance explained by the factor was 65%.

WOM Content: EFA results show that this construct is explained by a single factor. All five items loaded in this factor. Loadings varied from 0.54 to 0.93. Reliability was indicated by a Cronbach alpha value of 0.90. The total variance explained by the factor was 65%.

Online Interaction: EFA results show that this construct is explained by a single factor. All four items loaded in this factor. Loadings ranged from 0.52 to 0.94. Reliability was indicated by a Cronbach alpha value of 0.82. The total variance explained by the factor was 57%.

5.4 Hypotheses Testing

This section presents the testing of relationships amongst the different constructs. To test the hypotheses including the direct effect of Product Involvement and Sensory Brand Experience on each dimension of WOM activity and online interactions, the moderation effects on these relationships by BESC and frequency of playing tennis, and the inclusion of level of playing tennis as a covariate in such relationships, Hayes (2013) regression based path-analytic procedure was used. Specifically, ordinary least squares (OLS) criterion was used as it defines the best fitting line linking independent to dependent variables by providing a linear regression routine that derives the regression constant and regression coefficient (Hayes, 2013). Furthermore, OLS procedure discourages alternative explanations for a link between independent and dependent variables by incorporating variables that represent those alternative explanations as covariates in a linear regression model.

In order to assess the linearity between the dependent and independent variables (Hair et al., 1992), and the moderating and controlling role of the anticipated variables in the model, the SPSS version of PROCESS was used. Basically, PROCESS is a software for path analysis-based moderation and mediation analysis as well as their integration in the form of a conditional process model; the software generates conditional indirect effects in conditional process models with a single or multiple mediators as well as it estimates

unstandardized model coefficients, standard errors, t and p -values, and confidence intervals using OLS regression (Hayes, 2013).

5.5 Results

This section shows the results of each of the models where the hypotheses were tested. Using *PROCESS Model Number 1 (simple moderation analysis)*, sixteen different models, which considered a dependent (Y), independent (X), moderating (M), and control variable (CV), were tested. Presented in each model are: (1) a table showing the main moderation analysis, the main moderation effect examined through simple slopes analysis along with a graph, and (2) a graphical representation of each model. The table indicates the variables involved in the model and sample size, the main moderation analysis that comprises a summary of the regression coefficients including the β -value and the associated standard errors (which have been adjusted for heteroscedasticity); each β is compared to zero using a t -test, and also, the confidence interval for the β is generated. Moderation is delivered by a significant or non-significant interaction effect, which is interpreted examining the simple slopes that show the results of three different regressions; these are stated next to the corresponding graph. Lastly, the figure for each model shows the relationships between all the variables as well as the coefficient, standard error, and significance among them.

5.5.1 Direct effect of Product Involvement and Sensory Brand Experience on WOM activity and Online Interactions

As stated, OLS was used to test Hypotheses H1a, H1b, H1c, H1d, and H2a, H2b, H2c, H2d, which are about the direct effect of Product Involvement on WOM activity and

online interactions (H1), and the direct effect of Sensory Brand Experience on WOM activity and online interactions (H2).

As can be seen from Table 7, H1a and H2a were supported. Product Involvement (PI) was found to have a direct impact ($\beta=0.71$, $p<.001$) on the Intensity dimension of WOM activity. Sensory Brand Experience (BrExp) was also found to have a direct impact ($\beta=0.17$, $p<.010$) on the Intensity dimension of WOM activity.

Table 6 – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.45 ^a	.20	.20	1.38

a. Dependent Variable: WOM Intensity.

b. Predictors: (Constant), Product Involvement, and Sensory Brand Experience.

Table 7 presents the results of regression between Product Involvement and WOM Intensity as well as Sensory Brand Experience and WOM Intensity.

Table 7 - Coefficients

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	β	Std. Error	Beta	t	
Model 1 (Constant)	-.74	0.60		-1.24	.216
PI	0.71	0.11	0.37	6.48	.000
BrExp	0.17	0.06	0.16	2.83	.005

As can be seen from Table 9, H1b and H2b were supported. Product Involvement (PI) was found to have a direct impact ($\beta=0.64$, $p<.001$) on the Intensity dimension of WOM activity. Sensory Brand Experience (BrExp) was also found to have a direct impact ($\beta=0.28$, $p<.001$) on the Positive Valence dimension of WOM activity.

Table 8 – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.57 ^a	.32	.31	1.13

a. Dependent Variable: WOM Positive Valence.

b. Predictors: (Constant), Product Involvement (PI), and Sensory Brand Experience (BrExp).

Table 9 presents the results of regression between Product Involvement and WOM Positive Valence as well as Sensory Brand Experience and WOM Positive Valence.

Table 9 - Coefficients

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	0.18	0.49		0.37	.711
PI	0.64	0.09	0.38	7.15	.000
BrExp	0.28	0.05	0.31	5.88	.000

As can be seen from Table 11, H1c and H2c were supported. Product Involvement (PI) was found to have a direct impact ($\beta=0.67$, $p<.001$) on the Content dimension of WOM activity. Sensory Brand Experience (BrExp) was also found to have a direct impact ($\beta=0.40$, $p<.001$) on the Content dimension of WOM activity.

Table 10 – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.58 ^a	.34	.34	1.31

a. Dependent Variable: WOM Content.

b. Predictors: (Constant), Product Involvement (PI), and Sensory Brand Experience (BrExp).

Table 11 presents the results of regression between Product Involvement and WOM Content as well as Sensory Brand Experience and WOM Content.

Table 11 - Coefficients

Model 1	Unstandardized Coefficients		Standardized Coefficients		Sig.
	β	Std. Error	Beta	t	
(Constant)	-1.58	0.57		-2.80	.005
PI	0.67	0.10	0.33	6.45	.000
BrExp	0.40	0.06	0.37	7.22	.000

As can be seen from Table 13, H1d and H2d were supported. Product Involvement (PI) was found to have a direct impact ($\beta=0.63$, $p<.001$) on Online Interaction activity. Sensory Brand Experience (BrExp) was also found to have a direct impact ($\beta=0.18$, $p<.050$) on Online Interaction activity.

Table 12 – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.31 ^a	.10	.09	1.96

a. Dependent Variable: Online Interaction activity.

b. Predictors: (Constant), Product Involvement (PI), and Sensory Brand Experience (BrExp).

Table 13 presents the results of regression between Product Involvement and Online Interaction activity as well as Sensory Brand Experience and Online Interaction activity.

Table 13 - Coefficients

Model 1	Unstandardized Coefficients		Standardized Coefficients		Sig.
	β	Std. Error	Beta	t	
(Constant)	-1.84	0.85		-2.17	.031
PI	0.63	0.16	0.24	4.03	.000
BrExp	0.18	0.08	0.13	2.11	.036

5.5.2 Moderating Effect of BESC on the relationship between Product Involvement and Dependent Variables

Table 14 shows that Product Involvement (PI) had a significant positive direct effect on WOM Intensity ($\beta=0.64$, $p<.001$) but BESC produced a non-significant interaction effect ($\beta=0.09$, $p>.10$) on the relationship. It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.10$, $p=.025$). Hence, H3a was rejected.

Table 14 – H3a Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.47	0.23	16.37	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	3.08	0.31	9.95	.000	2.47	3.69
BESC	0.07	0.06	1.11	.269	-.05	0.19
PI	0.64	0.11	5.689	.000	0.42	0.86
PI * BESC	0.09	0.07	1.211	.227	-.06	0.23
BrExp	0.11	0.06	1.71	.089	-.02	0.23
Tennis Level	0.10	0.04	2.24	.025	-.01	0.19

Note:

Dependent Variable = WOM Intensity

Independent Variable = Product Involvement (PI)

Moderator = Brand Engagement in Self-Concept (BESC)

Control Variable = Tennis Level

Table 15 shows that Product Involvement (PI) had a significant positive direct effect on WOM Positive Valence ($\beta=0.53$, $p<.001$) but BESC produced a non-significant interaction effect ($\beta=0.03$, $p>.10$) on the relationship. Interestingly, BESC was found to have a positive direct effect on WOM Positive Valence ($\beta=0.12$, $p<.050$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.15$, $p<.001$). Hence H3b was rejected.

Table 15 – H3b Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.61	0.38	34.17	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	3.45	0.25	14.11	.000	2.98	3.93
BESC	0.12	0.05	2.44	.015	0.02	0.21
PI	0.53	0.09	5.91	.000	0.35	0.70
PI * BESC	0.03	0.06	0.48	.634	-.09	0.14
Tennis Level	0.15	0.04	4.36	.000	0.83	0.22
BrExp	0.19	0.05	3.91	.000	0.10	0.29

Note:

Dependent Variable = WOM Positive Valence

Independent Variable = Product Involvement (PI)

Moderator = Brand Engagement in Self-Concept (BESC)

Control Variable = Tennis Level

Table 16 shows Product Involvement (PI) had a significant positive direct effect on WOM Content ($\beta=0.54$, $p<.001$), and BESC produced a significant positive interaction effect ($\beta=0.23$, $p<0.001$) on this relationship. It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.20$, $p<.001$). Therefore, H3c was supported. The data of this study found a moderating effect of BESC on the relationship between Product Involvement and WOM Content.

Table 16 – H3c Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.65	0.42	41.36	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	1.61	0.28	5.81	.000	1.07	2.16
BESC	0.07	0.06	1.32	.189	-.04	0.18
PI	0.54	0.10	5.39	.000	0.35	0.74
PI * BESC	0.23	0.07	3.52	.001	0.10	0.36
Tennis Level	0.20	0.04	5.20	.000	0.13	0.28
BrExp	0.29	0.06	5.22	.000	0.18	0.40
R-square increase due to interaction between PI & BESC:						
	R2-chng	F	df1	df2	p	
PI * BESC	0.03	12.36	1	282	.001	
Conditional effect of PI on WOM Content at values of BESC:						
BESC	Effect	Std. Error	<i>t</i>	p	LLCI	ULCI
-1.42	0.21	0.14	1.57	.121	-.06	0.49
0.00	0.54	0.10	5.39	.000	0.35	0.74
1.42	0.87	0.14	6.35	.000	0.60	1.14
<i>Values for moderators are the mean and plus/minus one SD from the mean.</i>						

Note:

Dependent Variable = WOM Content
 Independent Variable = Product Involvement (PI)
 Moderator = Brand Engagement in Self-Concept (BESC)
 Control Variable = Tennis Level

These results are also presented in graphical form in Figure 2.

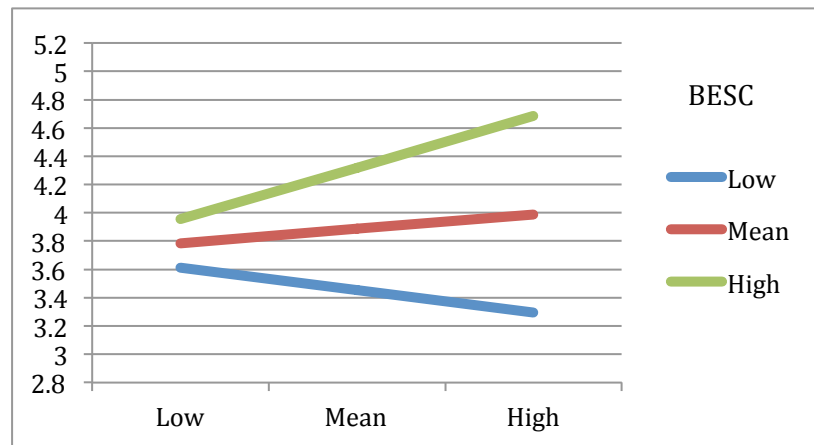


Figure 2

As shown in the graph above:

1. When BESC is low there is a non-significant positive interaction effect on the relationship between Product Involvement and WOM Content.
2. At the mean and higher values of BESC, there is a significant positive interaction effect of BESC on the relationship between Product Involvement and WOM Content.

Table 17 shows that Product Involvement (PI) had a significant positive direct effect on Online Interaction activity ($\beta=0.47$, $p<0.010$) but BESC produced a non-significant interaction effect ($\beta=0.02$, $p<.10$) on the relationship. BESC was found to have a positive direct effect on Online Interaction activity ($\beta=0.23$, $p<.010$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.16$, $p=.011$). Hence, H3d was rejected.

Table 17 – H3d Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.38	0.14	9.44	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	1.46	0.43	3.37	.000	0.61	2.31
BESC	0.23	0.09	2.73	.007	0.07	0.40
PI	0.47	0.16	3.01	.003	0.16	0.78
PI * BESC	0.02	0.10	0.18	.856	-.22	0.18
Tennis Level	0.16	0.06	2.57	.011	0.04	0.28
BrExp	0.06	0.09	0.66	.510	-.11	0.23

Note:

Dependent Variable = Online Interaction activity

Independent Variable = Product Involvement (PI)

Moderator = Brand Engagement in Self-Concept (BESC)

Control Variable = Tennis Level

5.5.3 Moderating Effect of BESC on the relationship between Sensory Brand

Experience and Dependent Variables

Table 18 shows that Sensory Brand Experience (BrExp) had a positive direct effect on WOM Intensity ($\beta=0.14$, $p<.050$), and BESC produced a significant positive interaction effect ($\beta=0.10$, $p=.010$) on this relationship. It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.20$, $p<.001$). Therefore, H4a was supported. The data of this study found a moderating effect of BESC on the relationship between Sensory Brand Experience and WOM Intensity.

Table 18 – H4a Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.49	0.24	17.95	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	0.01	0.65	0.02	.984	-1.26	1.29
BESC	0.07	0.06	1.22	.223	-.05	0.19
BrExp	0.14	0.06	2.20	.029	0.14	0.26
BrExp * BESC	0.10	0.04	2.77	.006	0.29	0.18
Tennis Level	0.10	0.04	2.30	.022	0.02	0.19
PI	0.60	0.11	5.33	.000	0.38	0.82

R-square increase due to interaction between BrExp & BESC:

	R2-chng	F	df1	df2	p
BrExp * BESC	0.02	7.66	1	282	.006

Conditional effect of BrExp on WOM Intensity at values of BESC:

BESC	Effect	Std. Error	<i>t</i>	p	LLCI	ULCI
-1.42	-.009	0.08	-.11	.910	-.16	0.14
0.00	0.14	0.06	2.20	.029	0.01	0.26
1.42	0.28	0.09	3.25	.001	0.11	0.45

Values for moderators are the mean and plus/minus one SD from the mean.

Note:

Dependent Variable = WOM Intensity

Independent Variable = Sensory Brand Experience (BrExp)

Moderator = Brand Engagement in Self-Concept (BESC)

Control Variable = Tennis Level

These results are also presented in graphical form in Figure 3.

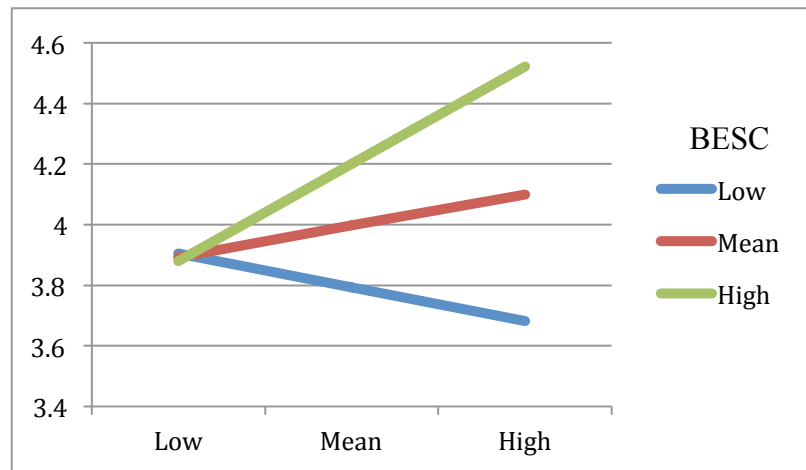


Figure 3

As shown in the graph above:

1. When BESC is low, there is a non-significant negative interaction effect on the relationship between Sensory Brand Experience and WOM Intensity.
2. At the mean and higher values of BESC, there is a significant positive interaction effect of BESC on the relationship between Sensory Brand Experience and WOM Intensity.

Table 19 shows that Sensory Brand Experience (BrExp) had a positive direct effect on WOM Positive Valence ($\beta=0.21$, $p<.001$) but BESC produced a non-significant interaction effect ($\beta=0.05$, $p>.10$) on this relationship. Furthermore, BESC was found to have a significant positive direct effect on WOM Positive Valence ($\beta=0.12$, $p<.050$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.15$, $p<.001$). Hence H4b was rejected.

Table 19 – H4b Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.62	0.38	34.85	5	282	.000	
Model						
	β	Std. Error	t	p	LLCI	ULCI
Constant	1.30	0.52	2.53	.012	0.29	2.31
BESC	0.12	0.05	2.51	.013	0.03	0.22
BrExp	0.21	0.05	4.15	.000	0.11	0.30
BrExp * BESC	0.05	0.03	1.54	.126	-.01	0.10
Tennis Level	0.15	0.03	4.40	.000	0.08	0.22
PI	0.51	0.09	5.67	.000	0.33	0.68

Note:

Dependent Variable = WOM Positive Valence

Independent Variable = Sensory Brand Experience (BrExp)

Moderator = Brand Engagement in Self-Concept (BESC)

Control Variable = Tennis Level

Table 20 shows that Sensory Brand Experience (BrExp) had a positive direct effect on WOM Content ($\beta=0.32$, $p<.001$), and BESC produced a significant positive interaction effect ($\beta=0.06$, $p<.10$) on this relationship. It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.20$, $p<.001$). Therefore, H4c was supported. The data of this study found a moderating effect of BESC on the relationship between Sensory Brand Experience and WOM Content.

Table 20 - H4c Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.64	0.40	38.26	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	-.14	0.60	-.23	.819	-1.31	1.04
BESC	0.07	0.06	1.31	.190	-.04	0.18
BrExp	0.32	0.06	5.62	.000	0.21	0.43
BrExp * BESC	0.06	0.03	1.74	.083	-.01	0.13
Tennis Level	0.20	0.04	5.06	.000	0.12	0.28
PI	0.52	0.10	5.02	.000	0.32	0.72
R-square increase due to interaction between BrExp & BESC:						
	R2-chng	F	df1	df2	p	
BrExp * BESC	.01	3.03	1	282	.083	
Conditional effect of BrExp on WOM Content at values of BESC:						
BESC	Effect	Std. Error	<i>t</i>	p	LLCI	ULCI
-1.42	0.24	0.07	3.42	.001	0.10	0.37
0.00	0.32	0.06	5.62	.000	0.21	0.43
1.42	0.40	0.08	5.08	.000	0.25	0.56
Values for moderators are the mean and plus/minus one SD from the mean.						

Note:

Dependent Variable = WOM Content

Independent Variable = Sensory Brand Experience (BrExp)

Moderator = Brand Engagement in Self-Concept (BESC)

Control Variable = Tennis Level

These results are also presented in graphical form in Figure 4.

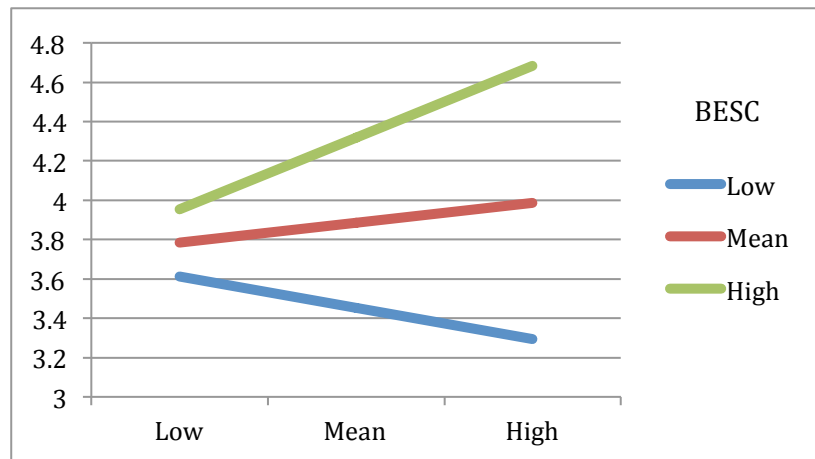


Figure 4

As shown in the graph above:

1. When BES is low, there is a non-significant positive interaction effect on the relationship between Sensory Brand Experience and WOM Content.
2. At the mean and higher values of BES, there is a significant positive interaction effect of BES on the relationship between Sensory Brand Experience and WOM Content.

Table 21 shows that Sensory Brand Experience (BrExp) have a non-significant direct effect on WOM Online Interaction ($\beta=0.06$, $p>.10$). Consequently, the conditional effect of Sensory Brand Experience on WOM Online Interaction at all values of BESC is non-significant. However, BESC was found to have a significant positive direct effect on WOM Online Interaction ($\beta=0.24$, $p<.010$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.16$, $p<.010$). Hence, H4d was rejected.

Table 21 – H4d Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.38	0.14	9.45	5	282	.000	
Model						
	coeff	s.e.	t	p	LLCI	ULCI
Constant	-1.03	0.914	-1.12	.263	-2.825	0.77
BESC	0.24	0.09	2.74	.007	0.07	0.40
BrExp	0.06	0.09	0.68	.500	-.11	0.23
BrExp * BESC	0.01	0.05	0.25	.806	-.09	0.12
Tennis Level	0.16	0.06	2.59	.010	0.04	0.28
PI	0.47	0.16	2.95	.003	0.16	0.78

Note:

Dependent Variable = Online Interaction activity

Independent Variable = Sensory Brand Experience (BrExp)

Moderator = Brand Engagement in Self-Concept (BESC)

Control Variable = Tennis Level

5.5.4 Moderating Effect of Frequency of Playing Tennis on the relationship between Product Involvement and Dependent Variables

Table 22 shows that Product Involvement (PI) had a significant positive direct effect on WOM Intensity ($\beta=0.60$, $p<.001$), and Frequency of Playing Tennis (TnsFrq) produced a significant positive interaction effect ($\beta=0.09$, $p<.001$) on the relationship. Frequency of Playing Tennis was also found to have a slightly significant positive direct effect on WOM Intensity ($\beta=0.08$, $p<.10$). It is noted that Tennis Level did not control the relationships within this set of variables ($\beta=0.07$, $p>.10$). Therefore, H5a was supported. The data of this study found a moderating effect of Frequency of Playing Tennis on the relationship between Product Involvement and WOM Intensity.

Table 22 – H5a Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.48	0.23	16.71	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	3.24	0.32	10.02	.000	2.60	3.87
TnsFrq	0.08	0.05	1.78	.076	-.01	0.17
PI	0.67	0.11	6.02	.000	0.45	0.89
PI * TnsFrq	0.09	0.05	1.97	.050	0.00	0.18
Tennis Level	0.07	0.05	1.48	.139	-.02	0.16
BrExp	0.11	0.06	1.79	.075	-.01	0.23
R-square increase due to interaction between PI & TnsFrq:						
	R2-chng	F	df1	df2	p	
PI * TnsFrq	0.01	3.88	1	282	.050	
Conditional effect of PI on WOM Intensity at values of TnsFrq:						
TnsFrq	Effect	Std. Error	<i>t</i>	p	LLCI	ULCI
-2.406	0.46	0.15	3.00	.003	0.16	0.76
0.00	0.67	0.11	6.02	.000	0.45	0.89
5.862	1.19	0.29	4.09	.000	0.62	1.76
Values for moderators are the mean and plus/minus one SD from the mean.						

Note:

Dependent Variable = WOM Intensity

Independent Variable = Product Involvement (PI)

Moderator = Frequency of Playing Tennis (TnsFrq)

Control Variable = Tennis Level

These results are also presented in graphical form in Figure 5.

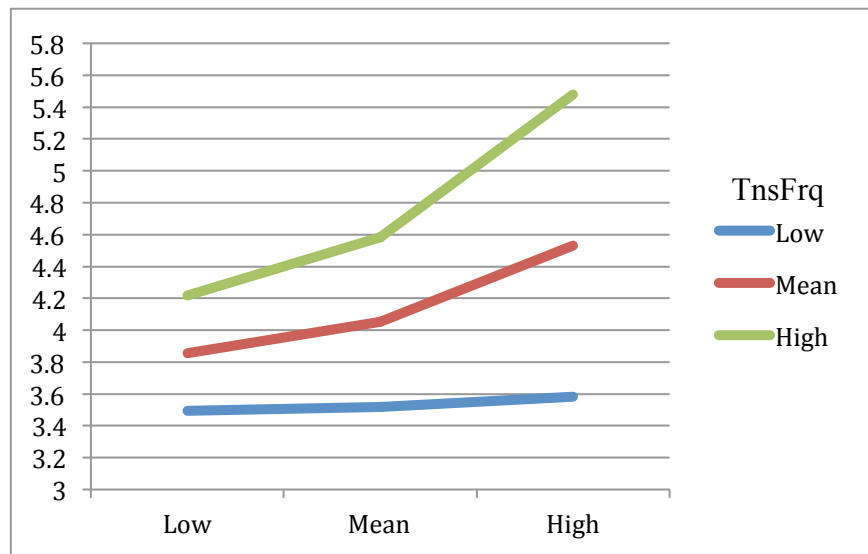


Figure 5

As shown in the graph above:

1. When BESC is low, there is a significant positive interaction effect on the relationship between Sensory Brand Experience and WOM Content.
2. At the mean and higher values of BESC, the relationship between Sensory Brand Experience and WOM Content gets even stronger.

Table 23 shows that Product Involvement (PI) had a significant positive direct effect on WOM Positive Valence ($\beta=0.56$, $p<.001$) but Frequency of Playing Tennis (TnsFrq) produced a non-significant interaction effect ($\beta=0.05$, $p>.10$) on the relationship. Moreover, Frequency of Playing Tennis was found to have a slightly significant positive direct effect on WOM Positive Valence ($\beta=0.07$, $p<.10$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.13$, $p<.001$). Thus, H5b was rejected.

Table 23 – H5b Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.61	0.38	33.92	5	282	.000	
Model						
	β	Std. Error	t	p	LLCI	ULCI
Constant	3.48	0.26	13.59	.000	2.97	3.98
TnsFrq	0.07	0.04	1.89	.060	-.01	0.14
PI	0.56	0.09	6.39	.000	0.39	0.74
PI * TnsFrq	0.05	0.04	1.40	.163	0.02	0.12
Tennis Level	0.13	0.04	3.58	.000	0.60	0.21
BrExp	0.21	0.05	4.33	.000	0.11	0.31

Note:

Dependent Variable = WOM Positive Valence

Independent Variable = Product Involvement (PI)

Moderator = Frequency of Playing Tennis (TnsFrq)

CV = Tennis Level

Table 24 shows that Product Involvement (PI) had a significant positive direct effect on WOM Content ($\beta=0.58$, $p<.001$), and Frequency of Playing Tennis (TnsFrq) produced a significant positive interaction effect ($\beta=0.16$, $p<.001$) on this relationship. Frequency of Playing Tennis was again found to have a significant positive direct effect on WOM Content ($\beta=0.15$, $p<.001$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.15$, $p<.010$). Therefore, H5c was supported. The data of this study found a moderating effect of Frequency of Playing Tennis on the relationship between Product Involvement and WOM Content.

Table 24 – H5c Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.65	0.43	41.67	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	1.96	0.29	6.78	.000	1.39	2.53
TnsFrq	0.15	0.04	3.75	.000	0.07	0.24
PI	0.58	0.10	5.81	.000	0.38	0.78
PI * TnsFrq	0.16	0.04	3.85	.000	0.08	0.24
Tennis Level	0.15	0.04	3.51	.001	0.06	0.23
BrExp	0.29	0.06	5.29	.536	0.18	0.40
R-square increase due to interaction between PI & TnsFrq:						
	R2-chng	F	df1	df2	p	
PI * TnsFrq	0.03	14.80	1	282	.000	
Conditional effect of PI on WOM Content at values of TnsFrq:						
TnsFrq	Effect	Std. Error	<i>t</i>	p	LLCI	ULCI
-2.406	0.21	0.14	1.51	.132	-.06	0.47
0.00	0.58	0.10	5.81	.000	0.38	0.78
5.862	1.49	0.26	5.72	.000	0.98	2.01
Values for moderators are the mean and plus/minus one SD from the mean.						

Note:

Y = WOM Content

X = Product Involvement (PI)

M = Frequency of Playing Tennis (TnsFrq)

CV = Tennis Level

These results are also presented in graphical form in Figure 6.

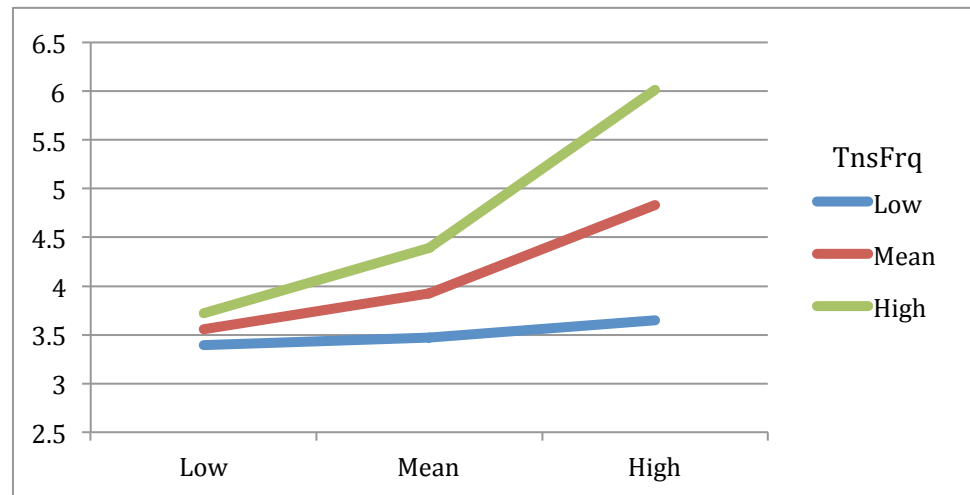


Figure 6

As shown in the graph above:

1. When Frequency of Playing Tennis is low, there is a non-significant positive interaction effect on the relationship between Product Involvement and WOM Content.
2. At the mean and higher values of Frequency of Playing Tennis, there is a significant positive interaction effect of Frequency of Playing Tennis on the relationship between Product Involvement and WOM Content.

Table 25 shows that Product Involvement (PI) had a significant positive direct effect on Online Interaction activity ($\beta=0.57$, $p<0.001$), and Frequency of Playing Tennis (TnsFrq) produced a significant positive interaction effect ($\beta=0.27$, $p<.001$) on this relationship. Furthermore, Frequency of Playing Tennis was found to have a significant positive direct effect on Online Interaction activity ($\beta=0.27$, $p<.001$). Tennis Level did not significantly control the relationships within this set of variables ($\beta=0.07$, $p>.10$). Therefore, H5d was supported. The data of this study found a moderating effect of Frequency of Playing Tennis on the relationship between Product Involvement and Online Interaction activity.

Table 25 – H5d Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.42	0.18	12.19	5	282	.000	
Model						
	β	Std. Error	t	p	LLCI	ULCI
Constant	1.895	0.44	4.28	.000	1.02	2.77
TnsFrq	0.27	0.06	4.34	.000	0.15	0.40
PI	0.57	0.15	3.71	.000	0.27	0.87
PI – TnsFrq	0.27	0.06	4.40	.000	0.15	0.39
Tennis Level	0.07	0.06	1.07	.288	-.06	0.19
BrExp	0.05	0.08	0.62	.536	-.11	0.22
R-square increase due to interaction between PI & TnsFrq:						
	R2-chng	F	df1	df2	p	
PI – TnsFrq	.056	19.342	1	282	.000	
Conditional effect of PI on Online Interaction at values of TnsFrq:						
TnsFrq	Effect	Std. Error	t	p	LLCI	ULCI
-2.406	-.09	0.21	-.42	.674	-.50	0.32
0.00	0.57	0.15	3.71	.000	0.27	0.87
5.862	2.161	0.40	5.41	.000	1.38	2.95

Values for moderators are the mean and plus/minus one SD from the mean.

Note:

Dependent Variable = Online Interaction activity
 Independent Variable = Product Involvement (PI)
 Moderator = Frequency of Playing Tennis (TnsFrq)
 Control Variable = Tennis Level

These results are also presented in graphical form in Figure 7.

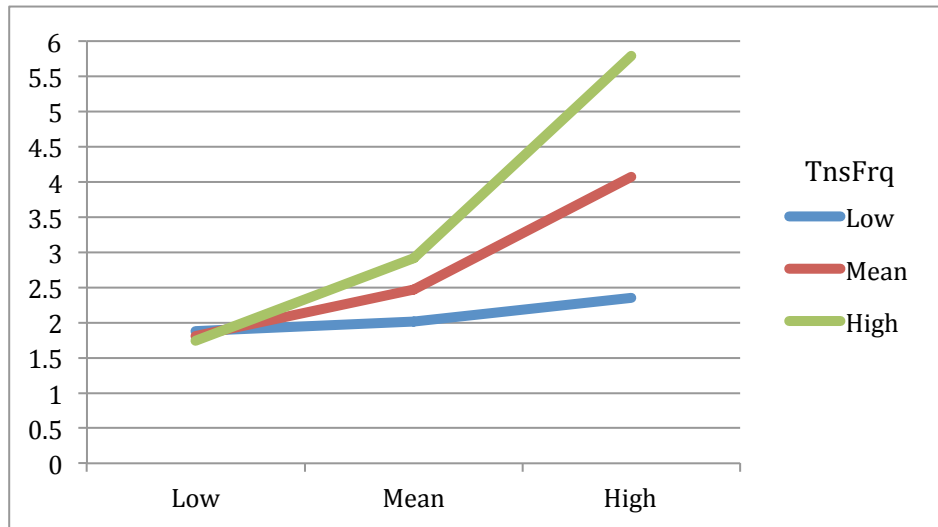


Figure 7

As shown in the graph above:

1. When Frequency of Playing Tennis is low, there is a non-significant negative interaction effect on the relationship between Product Involvement and Online Interaction activity.
2. At the mean and higher values of Frequency of Playing Tennis, there is a significant positive interaction effect of Frequency of Playing Tennis on the relationship between Product Involvement and Online Interaction activity.

5.5.5 Moderating Effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and Dependent Variables

Table 16 shows that Sensory Brand Experience (BrExp) had a significant positive direct effect on WOM Intensity ($\beta=0.15$, $p<.050$), and Frequency of Playing Tennis (TnsFrq) produced a significant positive interaction effect ($\beta=0.11$, $p<.001$) on this relationship. Also, Frequency of Playing Tennis was found to have a significant positive direct effect on WOM Intensity ($\beta=0.12$, $p<.001$). Tennis Level did not control the relationships within this set of variables ($\beta=0.06$, $p>.10$). Therefore, H6a was supported. The data of this study found a moderating effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and WOM Intensity.

Table 26 – H6a Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.51	0.26	19.79	5	282	.000	
Model						
	β	Std. Error	t	p	LLCI	ULCI
Constant	0.37	0.65	0.57	.570	-.91	1.65
TnsFrq	0.12	0.04	3.54	.000	0.05	0.19
BrExp	0.15	0.06	2.49	.013	0.03	0.26
BrExp * TnsFrq	0.11	0.03	3.99	.000	0.06	0.17
Tennis Level	0.06	0.04	1.30	.193	-.03	0.15
PI	0.58	0.11	5.23	.000	0.36	0.80
R-square increase due to interaction between BrExp & TnsFrq:						
	R2-chng	F	df1	df2	p	
BrExp * TnsFrq	0.04	15.931	1	282	.000	
Conditional effect of BrExp on WOM Intensity at values of TnsFrq:						
TnsFrq	Effect	Std. Error	t	p	LLCI	ULCI
-2.406	-.13	0.09	-1.46	.145	-.30	0.04
0.00	0.15	0.06	2.49	.013	0.31	0.26
5.862	0.82	0.18	4.48	.000	0.46	1.18

Values for moderators are the mean and plus/minus one SD from the mean.

Note:
 Dependent Variable = WOM Intensity
 Independent Variable = Sensory Brand Experience (BrExp)
 Moderator = Frequency of Playing Tennis (TnsFrq)
 Control Variable = Tennis Level

These results are also presented in graphical form in Figure 8.

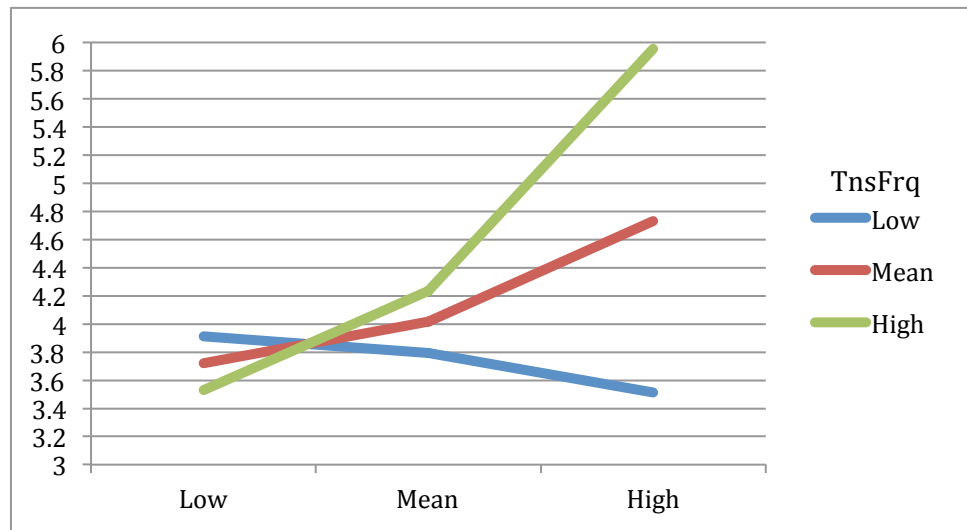


Figure 8

As shown in the graph above:

1. When Frequency of Playing Tennis is low, there is a non-significant negative interaction effect on the relationship between Sensory Brand Experience and WOM Intensity.
2. At the mean and higher values of Frequency of Playing Tennis, there is a significant positive interaction effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and WOM Intensity.

Table 27 shows that Sensory Brand Experience (BrExp) had a significant positive direct effect on WOM Positive Valence ($\beta=0.23$, $p<.001$), and Frequency of Playing Tennis (TnsFrq) produced a significant positive interaction effect ($\beta=0.07$, $p<.010$) on this relationship. Frequency of Playing Tennis was also found to have a significant positive direct effect on WOM Positive Valence ($\beta=0.10$, $p<.001$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.13$, $p<.001$). Therefore, H6b was supported. The data of this study found a moderating effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and WOM Positive Valence.

Table 27 - H6b Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.62	0.39	36.02	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	1.42	0.52	2.74	.007	0.40	2.44
TnsFrq	0.10	0.03	3.42	.001	0.04	0.15
BrExp	0.23	0.05	4.89	.000	0.14	0.33
BrExp * TnsFrq	0.27	0.02	2.92	.004	0.02	0.11
Tennis Level	0.13	0.04	3.53	.000	0.55	0.20
PI	0.51	0.09	5.76	.000	0.34	0.69
R-square increase due to interaction between BrExp & TnsFrq:						
	R2-chng	F	df1	df2	p	
BrExp * TnsFrq	0.10	8.55	1	282	.004	
Conditional effect of BrExp on WOM Positive Valence at values of TnsFrq:						
TnsFrq	Effect	se	t	p	LLCI	ULCI
-2.406	0.71	0.07	1.01	.312	-.07	0.21
0.00	0.23	0.05	4.89	.000	0.14	0.33
5.862	0.624	0.15	4.28	.000	0.34	0.91

Values for moderators are the mean and plus/minus one SD from the mean.

Note:

Dependent Variable = WOM Positive Valence
 Independent Variable = Sensory Brand Experience (BrExp)
 Moderator = Frequency of Playing Tennis (TnsFrq)
 Control Variable = Tennis Level

These results are also presented in graphical form in Figure 9.

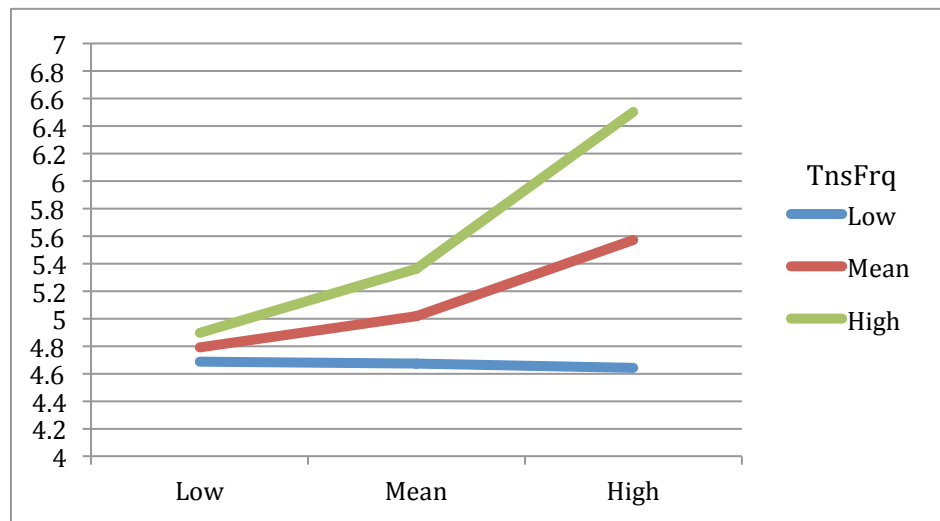


Figure 9

As shown in the graph above:

1. When Frequency of Playing Tennis is low, there is a non-significant positive interaction effect on the relationship between Sensory Brand Experience and WOM Positive Valence.
2. At the mean and higher values of Frequency of Playing Tennis, there is a significant positive interaction effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and WOM Positive Valence.

Table 28 shows that Sensory Brand Experience (BrExp) had a significant positive direct effect on the Content dimension of WOM activity ($\beta=0.33$, $p<.001$), and Frequency of Playing Tennis (TnsFrq) produced a slight positive interaction effect ($\beta=0.05$, $p<.10$) on this relationship. Also, Frequency of Playing Tennis was found to have a slight positive direct effect on WOM Content ($\beta=0.06$, $p=.061$). It can be noted that these results are after controlling for the effect of Tennis Level ($\beta=0.18$, $p=.000$). Therefore, H6c was supported. The data of this study found a moderating effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and WOM Content.

Table 28 - H6c Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.63	0.40	38.01	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	-.06	0.60	-.10	.921	-1.25	1.13
TnsFrq	0.06	0.03	1.88	.061	-.01	0.12
BrExp	0.33	0.06	6.00	.000	0.22	0.44
BrExp * TnsFrq	0.05	0.03	1.93	.055	-.01	0.10
Tennis Level	0.18	0.04	4.43	.000	0.10	0.26
PI	0.53	0.10	5.10	.000	0.32	0.73
R-square increase due to interaction between BrExp & TnsFrq:						
	R2-chng	F	df1	df2	p	
BrExp * TnsFrq	0.01	3.71	1	282	.055	
Conditional effect of BrExp on WOM Content at values of TnsFrq:						
TnsFrq	Effect	Std. Error	<i>t</i>	p	LLCI	ULCI
-2.406	0.21	0.08	2.56	.011	0.05	0.37
0.00	0.33	0.06	6.00	.000	0.22	0.44
5.862	0.63	0.17	3.72	.000	0.30	0.97
Values for moderators are the mean and plus/minus one SD from the mean.						

Note:

Dependent Variable = WOM Content

Independent Variable = Sensory Brand Experience (BrExp)

Moderator = Frequency of Playing Tennis (TnsFrq)

Control Variable = Tennis Level

These results are also presented in graphical form in Figure 10.

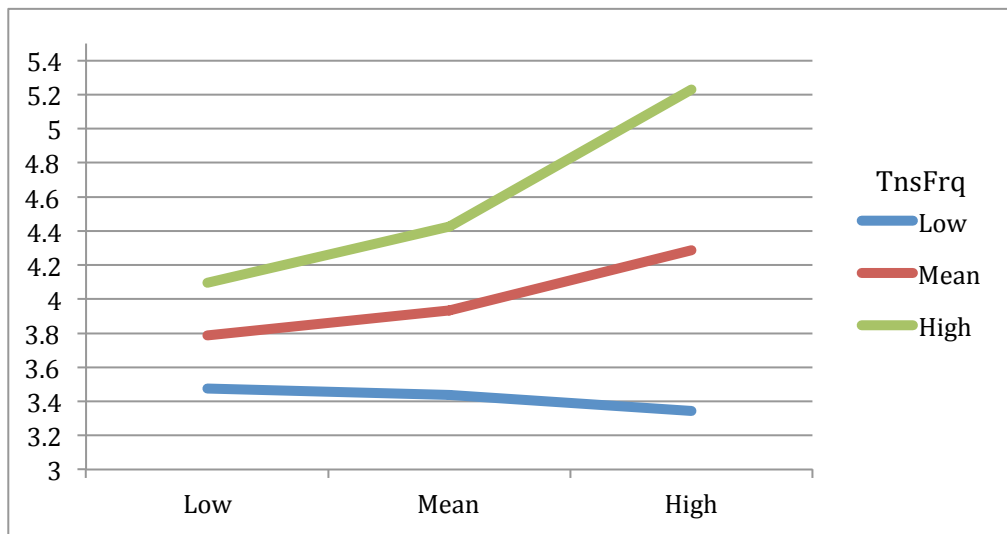


Figure 10

As shown in the graph above:

1. When Frequency of Playing Tennis is low, there is a significant positive interaction effect on the relationship between Sensory Brand Experience and WOM Content.
2. At the mean and higher values of Frequency of Playing Tennis, the positive interaction effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and WOM Content gets even stronger.

Table 29 shows that Sensory Brand Experience (BrExp) a significant positive direct effect on Online Interaction activity ($\beta=0.15$, $p<.10$), and Frequency of Playing Tennis (TnsFrq) produced a significant positive interaction effect ($\beta=0.23$, $p<.001$) on this relationship. Frequency of Playing Tennis was also found to have a significant positive direct effect on Online Interaction activity ($\beta=0.26$, $p<.001$). Tennis Level did not control the relationships within this set of variables ($\beta=0.08$, $p=.189$). Therefore, H6d was supported. The data of this study found a moderating effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and Online Interaction activity.

Table 29 – H6d Model Outcomes

Summary						
R	R-square	F	df1	df2	p	
0.46	0.21	15.38	5	282	.000	
Model						
	β	Std. Error	<i>t</i>	p	LLCI	ULCI
Constant	-.19	0.89	-.21	.833	-1.934	1.56
TnsFrq	0.26	0.05	5.51	.000	0.17	0.35
BrExp	0.15	0.08	1.83	.069	-.01	0.31
BrExp * TnsFrq	0.23	0.04	5.78	.000	0.15	0.30
Tennis Level	0.08	0.06	1.32	.189	-.04	0.20
PI	0.38	0.15	2.49	.013	0.08	0.68
R-square increase due to interaction between BrExp & TnsFrq:						
	R2-chng	F	df1	df2	p	
BrExp * TnsFrq	0.09	33.36	1	282	.000	
Conditional effect of BrExp on Online Interaction at values of TnsFrq:						
TnsFrq	Effect	Std. Error	<i>t</i>	p	LLCI	ULCI
-2.406	-.40	0.12	-3.32	.001	-.63	-.16
0.00	0.15	0.08	1.83	.069	-.01	0.31
5.862	1.47	0.25	5.91	.000	0.98	1.97
Values for moderators are the mean and plus/minus one SD from the mean.						

Notes:

Dependent Variable = Online Interaction activity
 Independent Variable = Sensory Brand Experience (BrExp)
 Moderator = Frequency of Playing Tennis (TnsFrq)
 Control Variable = Tennis Level

These results are also presented in graphical form in Figure 11.

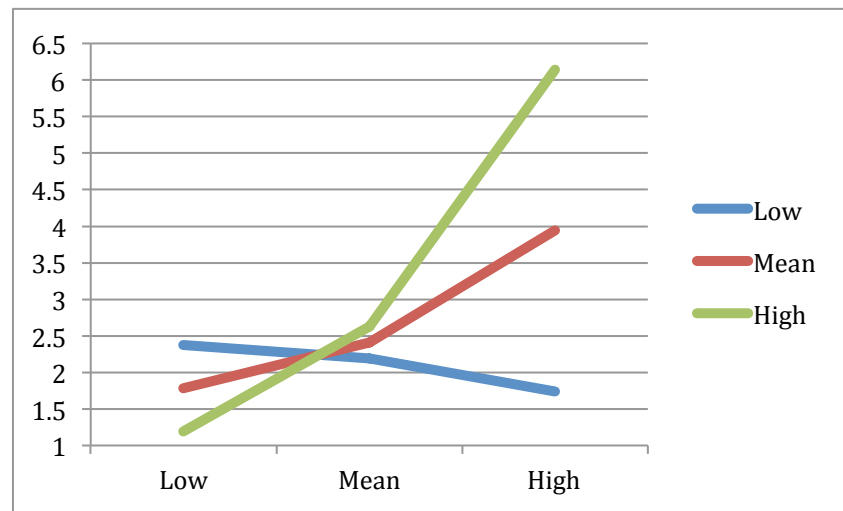


Figure 11

As shown in the graph above:

1. When Frequency of Playing Tennis values are low, there is a significant negative interaction effect on the relationship between Sensory Brand Experience and Online Interaction activity.
2. At the mean values of Frequency of Playing Tennis, a positive interaction effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and Online Interaction becomes apparent. At the high values of Frequency of Playing Tennis, the relationship intensifies.

5.6 Summary: Results and Additional Findings

Table 30 provides a summary of the hypotheses results and relevant additional findings.

Table 30 - Summary of Results from Hypotheses Testing

Hypotheses	Supported or Rejected	Additional Findings
<i>Direct Effect Independent on Dependent Variables</i>		
H1 (a, b, c, d): Product Involvement	Supported	
H2 (a, b, c, d): Sensory Brand Experience	Supported	
<i>Moderating Effect of BESC on the relationship between Product Involvement and Dependent Variables</i>		
H3a: (PI – WOM Intensity)	Rejected	
H3b: (PI – WOM Valence)	Rejected	BESC was found to have a direct impact on WOM Positive Valence.
H3c: (PI – WOM Content)	Supported	
H3d: (PI – Online Interaction)	Rejected	BESC was found to have a direct impact on WOM Online Interaction.
<i>Moderating Effect of BESC on the relationship between Sensory Brand Experience and Dependent Variables</i>		
H4a: (BrExp – WOM Intensity)	Supported	
H4b: (BrExp – WOM Valence)	Rejected	BESC was found to have a direct impact on WOM Positive Valence.
H4c: (BrExp – WOM Content)	Supported	
H4d: (BrExp – Online Interaction)	Rejected	BESC was found to have a direct impact on Online Interaction.

Moderating Effect of Frequency of Playing Tennis on the relationship between Product Involvement and Dependent Variables

H5a: (PI – WOM Intensity)	Supported	Frequency of Playing Tennis was found to have a direct impact on all dimensions of WOM.
H5b: (PI – WOM Valence)	<i>Rejected</i>	
H5c: (PI – WOM Content)	Supported	
H5d: (PI – Online Interaction)	Supported	

Moderating Effect of Frequency of Playing Tennis on the relationship between Sensory Brand Experience and Dependent Variables

H6a: (BrExp – WOM Intensity)	Supported	Frequency of Playing Tennis was found to have a direct impact on all dimensions of WOM.
H6b: (BrExp – WOM Valence)	Supported	
H6c: (BrExp – WOM Content)	Supported	
H6d: (BrExp – Online Interaction)	Supported	

5.7 Chapter Summary

This chapter disclosed the details of the data analysis, procedures, and results of the study. Accordingly, most hypotheses were supported as well as other relevant findings uncovered. The following chapter is comprised by the interpretation of the results, their implications and the conclusions of this dissertation.

Chapter 6

Summary and Conclusions

This dissertation contributes to the marketing literature by shedding light on the influence of Product Involvement and Sensory Brand Experience on Customer Engagement Behaviours in the form of word-of-mouth (WOM) activity and online interactions in the sports setting. Also, considering the lack of research that has explored the potential moderators of particular constructs and behavioural outcomes, such as WOM activity, in the context of sports (Yu Kyoum & Trail, 2011), this study investigated the moderating role of two particular variables on these relationships: (1) Brand Engagement in Self-Concept, which refers to individuals' general tendency to include brands as part their self-concept; and (2) Frequency of Playing the sport, in this case, Tennis.

The context of sports was selected due to the nature and significance of this industry as well as to particular aspects of sports participants such as high involvement and strong sensory experiences in relation to their sports equipment. As a sport that implicates a technologically complex, usually highly valorised product, tennis was an ideal avenue for conducting this research.

The independent variables considered in this dissertation have been discussed in previous consumer behaviour literature and highlighted as antecedents of customer engagement. Moreover, WOM activity and online interactions have been stressed as important behavioural outcomes of engagement with brands or firms. In the context of sports, the stream of literature on motivational drivers of WOM activity and online

interactions is limited. In fact, empirical research that has focused on brand engagement behavioural outcomes displayed by sports participants is sparse. This dissertation endeavoured to address this gap. In addition, considering the high symbolic and social value of sport brands' products and their active role in the valorisation of the self-concept, BESC was included in this study as a central construct, which has not been considered in previous sports marketing studies.

This dissertation's theoretical framework was developed based on an in-depth analysis of prior research. The direct relationships between the previously discussed antecedents of WOM activity and online interactions, and the moderating role of BESC and Frequency of Playing Tennis on those relationships is depicted in Figure 1. The conceptual model was operationalized using existing validated scales, which in some cases were adjusted according to the requirements of the context. After this, the collection of data took place, the model was tested, and the analysis and results were provided in the previous chapter.

The main findings are summarized and discussed in the following section. Implications of the results are then presented followed by limitations and future research directions.

6.1 Major Research Findings

This section discusses the results of the hypothesized relationships introduced within this dissertation's theoretical framework.

6.1.1 Product Involvement Direct Effect

The findings clearly support that Product Involvement has a positive effect on WOM activity and online interactions. In fact, Product Involvement had a significant impact on all dimensions of WOM activity including Intensity, Positive Valence and Content. The effect on Online Interactions was also significant.

In relation to the Intensity dimension, it was found that at higher levels of involvement with their tennis racket, participants engage in more frequent WOM. This also suggests that highly involved consumers engage in WOM in broader range of situations and consequently communicate the brand to more individuals (Goyette et al., 2010)

The significant effect on the Positive Valence dimension supports the notion that involvement, along with other relational constructs including customer's level of trust, satisfaction and commitment, is an important antecedent of Positive WOM (Samson, 2010). In parallel to previous research conducted in advertising and business settings (Dichter, 1966; Sundaram et al., 1998), product involvement was found to be an important antecedent of positive WOM in this particular setting.

The positive influence of product involvement on the depth of WOM generated content was also evident. First, the results in this study show that the higher consumers are

involved with a particular product, the more enthusiastic they are in discussing more aspects about the brand. For instance, it was shown that involved participants discussed more complex issues such as the tangible materials or technological advances with respect of their tennis rackets. By using a multidimensional scale of WOM, the findings in this dissertation extend and support previous research conducted in the sports setting that found perceived importance and equipment knowledge (dimensions of Equipment Involvement) positively associated to opinion leadership (Bloch et al., 1989).

Furthermore, Product Involvement was found to have a positive effect on online interaction activity. While other studies have uncovered different psycho-social motives of engaging in electronic WOM such as reputation and sense of belonging (Cheung & Lee, 2012), product involvement emerged in this study as a driver of online interactions in the context of sports. As discussed earlier, it is common that sports participants attach great value to their sports equipment as they link it to relevant moments in their lives such as personal achievements, fun experiences and other symbolic content that make them unique to them (Bouchet et al., 2013).

Overall, the results support the view that involvement, in this case Product Involvement, is an important antecedent of the behavioural dimension of customer engagement. Specifically, Product Involvement was found to have a direct effect on Customer Engagement Behaviours in the form WOM activity and online interactions.

6.1.2 Sensory Brand Experience Direct Effect

Sensory Brand Experience had a positive effect on all dimensions of WOM activity including Intensity, Positive Valence, and Content as well as on online interactions.

Although Product Involvement had a stronger direct effect on these variables, the influence of Sensory Brand Experience was significant in all cases.

The results reveal the importance of the tangible characteristics of sport products that can be experienced via the senses (Bouchet et al., 2013; Smith, 1995). It should be noted, that sport actors experience those tangible characteristics and other related sensory stimuli (e.g. colours, brightness, design, feel of grip, and other features) in an active way. While active brand experiences have been found to increase awareness, brand recall and attitudes (Fransen, van Rompay, & Muntinga, 2013), the sensory dimension of brand experience in this case had a significant direct effect on specific behaviours including WOM activity as well as online interactions with a brand-focus. Although previous studies have found that brand experiences have a behavioural impact, Brakus et al. (2009) stressed that further studies should examine whether their brand experience scale (used in this study) can predict specific behavioural outcomes. Correspondingly, it was demonstrated that the sensory scale-items, as developed by Brakus et al. (2009) can predict specific behaviours. In particular, the content dimension of WOM activity was more significantly affected ($\beta = .40$) and participants with higher Sensory Brand Experience levels discussed content that related to specific design or aesthetic features of their rackets including the head size, string pattern, weight, grip size, as well as manoeuvrability, flexibility or rigidness. Sensory Brand Experience therefore, arises in the sport setting as an important predictor of WOM activity and online interactions with a brand focus.

6.1.2 Brand Engagement in Self-Concept (BESC)

The moderating role of Brand Engagement in Self-Concept (BESC) on different relationships that integrated the conceptual model was evident.

BESC was found to have a positive influence on the relationship between Product Involvement and the Content dimension of WOM activity. As demonstrated in this study, the relationship between Product Involvement and the depth of content sport participants spread about a certain brand through WOM activity intensifies in function of how likely they are to include brands as part of their self-concept.

In relation to the moderating effect on Sensory Brand Experience and WOM activity, there was a significant positive interaction effect on WOM Intensity and WOM Content. This implies that in experiencing the tangible aspects of a certain brand through the senses, sport consumers might incur on more, or less, frequent WOM that is richer in content depending on how prone they are in involving brands in their self-concept. In short, at higher levels of BESC, sport actors are more inclined in communicating more content about the brand in a more recurrent way.

BESC did not moderate the direct effect of Product Involvement on WOM Positive Valence, WOM Content, and online interactions. Neither an interaction effect was found on the relationship between Sensory Brand Experience and WOM Positive Valence and online interaction activity.

Even though BESC did not moderate the effect on some of the relationships, it was found to have a positive direct impact on two of the dependent variables. For instance, BESC was found to have a positive direct impact on the Positive Valence dimension of WOM activity. These results suggest that individuals with higher levels of BESC incur in positive WOM about the brands they prefer. While the empirical evidence presented by Sprott et al. (2009), which indicate that BESC significantly affects brand-related

consumer constructs such as brand knowledge, attention, attitudes, preference, and loyalty, BESC has a direct effect on positive word-of-mouth in this particular context. Knowing that sports participants use brands that reflect their self-concept, and that self-enhancement is recognised as a path to individual expression and a route for projecting one's self-concept (Price, Feick, & Guskey, 1995), it can be sustained that sport actors can generate positive WOM regarding satisfying consumption experiences as means to express something about themselves. As it was previously discussed, self-enhancement has been identified in numerous occasions as an important antecedent of WOM activity.

The significant direct positive relationship between BESC and online interaction activity is notable. According to this finding, consumers who incorporate their preferred brands as part of their self-concept are more inclined to engage in electronic WOM. Cognisant that sport brands tend to be amongst the group of favourite brands for many consumers (Bouchet et al., 2013) and that a genuine fit between the brand meaning and the self-concept generate online WOM (Schau & Mary C. Gilly, 2003), it is logical to assume that sport participants engage in online interaction activity depending on BESC levels. As it has been demonstrated, brand-engaged consumers that provide "likes" on social sites, offer WOM for particular brands that resonate with their inner selves (Wallace et al., 2014). Further on, providing comments and recommendations in social online platforms as forms of electronic WOM has been linked to social-psychological motivational drivers that reflect a consumer's identity (Brown et al., 2007). The direct effects of BESC on online interaction activity encountered in this study support this notion. In combination with BESC's direct effect on positive WOM, the relevance of the construct in predicting brand engagement behaviours in sport participants is noteworthy.

6.1.3 Frequency of Playing Tennis

All except one of the hypothesized direct relationships were contingent upon Frequency of Playing Tennis. In addition, Frequency of Playing Tennis was found to impact directly all dimensions of WOM activity as well as online interactions.

The moderating effect of Frequency of Playing Tennis on the direct effect of Product Involvement and the Intensity and Content dimensions of WOM was evident.

Frequency of Playing Tennis also moderated the relationship between Product Involvement and online interactions but it did not moderate the relationship with WOM Positive Valence. The findings indicate that at higher levels of involvement, participants will engage in more WOM and online interactions based on how frequently they play. The more often participants play, the stronger the relationship between product involvement and WOM activity and online interactions will be.

The moderation effects on the aforementioned relationships support the proposition that a person's involvement with a recreational activity or related sports equipment (Product Involvement) is positively related to frequency of participation (Havitz & Dimanche, 1990). It can be expected that a person who plays tennis five times a week will be likely to have a higher involvement profile than a person who plays once a week. While commitment to a sport, which one of its antecedents is involvement (Bloch et al., 1989), was found to predict participation frequency in tennis players (Casper et al., 2007), this study confirmed that frequency of participation is a significant variable in moderating the relationship between product involvement and customer engagement behaviours in the form of WOM and online interactions. Also, the moderating role of Frequency of Playing Tennis in such relationships supports other marketing contexts' findings that have demonstrated that Product Involvement has a correlate to frequency of use (Mittal

& Myung-Soo, 1988; Ram & Jung, 1994; Samson, 2010). While this study measured frequency in terms of playing tennis, playing tennis necessarily implies the use of a tennis racket.

Frequency of Playing Tennis also moderated the direct impact of Sensory Brand Experience on all dimensions of WOM activity and online interactions. It can be inferred that by sensory experiencing the brand more often, sport participants will increase WOM activity as well as online interactions. A tennis player who uses his or her racket almost everyday will actively experience the brand more often. Thus, it can be underlined that the more frequently a participant play tennis, the more likely he will articulate and share lived experiences that relate to his tennis racket brand. In short, it was found that the direct effect of Sensory Brand Experience on WOM activity and online interactions will be stronger depending on how often tennis players play. The more often, the stronger the relationship becomes.

Not only Frequency of Playing Tennis had a moderating effect on most relationships but it also had a direct impact on every dimension of WOM activity as well as on online interactions. These findings extend previous sport marketing literature by finding a direct association between frequency of playing a sport and behavioural engagement with sport equipment. Firstly, it is shown in this study that frequency of playing tennis has a positive effect on WOM activity. Sport actors that play more often are likely to experience the activity more intensely and therefore may be more encouraged to spread WOM. This supports the findings in other marketing contexts where a positive direct effect between brand usage and the actual number of WOM conversations was established (Samson, 2010). Moreover, this study revealed that frequency of playing not only has an impact on the number of WOM conversations but it demonstrated that it

affects every one of its dimensions. In addition, the link between frequency of playing tennis and online interactions was also established in this research.

In summary, BESC & Frequency of Playing Tennis were found as most relevant in this study not only in moderating the effect of Product Involvement and Sensory Brand Experience on WOM activity and online interactions but also as direct predictors of such constructs.

6.2 Implications

This study is one of the first in addressing an emerging issue that has significant implications for marketing academics and practitioners.

For academics, the findings show several important contributions to the emerging customer engagement literature in the context of sports. First, the findings support the importance of product involvement as a predicting variable of consumer engagement behaviours. This study provided evidence that there was a significant difference between tennis players' level of product involvement in terms of engaging in WOM activity and online interactions: the higher the level of product involvement, the more behavioural engagement was displayed. These findings extend and add confidence to the work of Bloch et al. (1989) who found relationships between equipment involvement and opinion leadership in sport participants. While Bloch et al. (1989) studied such relationships in a less equipment-oriented sport, this study considered tennis players, who are more equipment-dependent. Additionally, the present study shows in depth the significant impact of product involvement on all dimensions of WOM activity including Intensity, Positive Valence, and Content.

Involvement is an important antecedent of customer engagement (Bowden, 2009; Brodie et al., 2011; Hollebeek, 2011a, 2011b). While consumers can be involved with a category, situation, or brand communications (Antil, 1984), this study shows the specific role of involvement with a product (sports equipment) in driving customer engagement behavioural outcomes. It also shows how product involvement has a direct impact on different types of customer engagement behaviours. Such impact was not only present on offline WOM but it extended to specific online behaviours including visiting a website, posting comments, and “likes”. The impact on both offline WOM and electronic WOM point at Product Involvement as a key driver of such behavioural outcomes in relation to sports participants.

This study has also demonstrated the relevance of the tangible and visible aspects of tennis racket brands to those who use them. The direct impact of the Sensory Brand Experience on WOM activity as well as online interactions reinforces the relevance of the sensorial dimension of sport brands as indicated by Bouchet et al. (2013).

Brakus et al. (2009) indicated that future research should assess whether their brand experience scale could predict specific behavioural outcomes. This study demonstrated that the level of sensory experience evoked by specific racket brands was strong enough so to generate an impact on specific behavioural outcomes. Two important implications are drawn from this finding. First, the sensory dimension of brand experiences in the context of sport seems promising in exploring its relationship with other constructs. For instance, experience is integrated by other dimensions including intellectual, behavioural and affective (Brakus et al., 2009). Even so, the sensory dimension alone had a significant impact on tennis players’ WOM activity and online interactions.

Second, the link between sensory brand experience and customer engagement supports the argument that customer engagement behaviours are initially consequences of cognitive, emotional, behavioural and sensory experiences with the brand (Malthouse & Calder, 2011). Providing its confirmed relevance, further exploration of the sensory experience construct in this stream of research is encouraged.

By impacting consumer behaviours that are most relevant in the current market place, Brand Engagement in Self-Concept (BESC) emerged as a valuable construct in sports marketing research. Firstly, the BESC scale met requirements of reliability proving its usefulness in the sports marketing context. Secondly, this study explored BESC in relation to other constructs. Its moderating role on particular relationships was evident. In positively moderating the effect on the relationship between product involvement and the content dimension of WOM activity, BESC was found to have an indirect impact on WOM activity. Furthermore, BESC was found to have a positive direct effect on Positive WOM and on Online Interactions. The significance of this finding is that brand engagement in relation to the self-concept has an impact on both offline and online WOM.

Frequency of playing tennis had a significant moderation and direct effect in almost all relationships. However, further inquiry is needed to assess whether sport participants engage in WOM as a result of playing the sport more frequently or as a result of using the brand more frequently.

For marketing practitioners, there are several implications that derive from this study. First, the findings of this study can help marketers to further understand customer engagement behaviour (van Doorn et al., 2010), which is most relevant to battle the increasing consumer invulnerability towards commercial media (Gummerus et al.,

2012). In line with the findings, marketing efforts targeting sport participants should focus on strategies that consider customer characteristics such as levels of Product Involvement and product characteristics that are experienced via the senses. Knowing that consumers that are highly involved with the product engage in more WOM activity, marketers should build strategies that encourage customer-to-customer interactions by targeting this segment. For instance, in tennis the use of product endorsements and advertising have been the primary communication media over the past three decades. Nevertheless, the effects of these marketing tools appear to be dependent on the length of a new design in the market (Kim, 2009). Taking this into account, strategies that trigger WOM activity can have a stronger influence on increasing customer purchase behaviours in relation to high involvement products such as tennis rackets.

In this particular setting, the tangible and visible aspects of tennis racket brands appeared as significant in generating WOM activity. In the mature tennis racket industry, novel design is crucial for strategic renewal under the assumption that innovation includes, amongst other factors, the communication between firms and market (Kim, 2009). Given the high importance that participants attach to sports, sport firms are presented with a great opportunity of engaging customers by encouraging them to participate in online interactive platforms such as social media sites or other online forums. For example, in 2013 the French tennis racket manufacturing firm Babolat launched a new racket model that includes an electronic sensor that tracks all aspects of the player's game (Babolat, 2014). The data is automatically uploaded to a smartphone, tablet or computer. Most importantly, the technology foster favourable customer engagement by allowing the players to interact with the brand and share and compare results as well as discuss aspects of the racket brand with friends and the wider community of users who play with such model.

As discussed in the findings, Product Involvement, Sensory Brand Experience, and BESC are important predictors of both online and offline customer to customer interactions. Taking into account that sport brands' products play an active role in the valorisation of the self-concept, sports marketing practitioners could target sport participants based on their levels of BESC. Marketing strategies that target sport consumers high in BESC could foster favourable customer engagement. The direct impact of BESC on positive WOM indicates that sport participants that present higher levels of BESC can be advocates for the brand and incur in recommendation behaviour. In brief, these customers might be more likely to promote the firm socially by initiating positive word of mouth and therefore could be considered essential to integrated multi-channel marketing campaigns. Also, an important finding in this study was the direct relationship between BESC and online interactions. By targeting sport participants higher in BESC marketers have the possibility to enhance online customer engagement behaviours that can have a broader impact.

Overall, customer engagement behaviour is an important research topic to understanding consumers more comprehensively (van Doorn et al., 2010). This study articulated significant interactive effects between off and online WOM and some important variables, including frequency of playing the sport. Marketers can consider such variables when implementing marketing tactics into integrated campaigns with the objective of enhancing customer engagement and profitability.

6.3 Limitations

Limitations of this research are acknowledged. First, due to the particular nature of the sports setting, the generalizability of the present findings may be limited to this context. Also, tennis is more equipment oriented than other sports (Casper et al., 2007) so generalizability of the findings to other sports deserves attention.

Even though the sample was sufficient in terms of size, it was limited to adult sport participants. Active sports players experience sport brands more vividly (Bouchet et al., 2013). Thus, it is likely that WOM activity or online interactions in passive sport consumers such as spectators or fans, is triggered by different constructs than the ones explored in this research.

Negative valence is a central dimension of WOM activity (Goyette et al., 2010). This study only included positive WOM. Future studies within this context could explore the relationship between negative WOM and the examined constructs in this study.

Although the tennis racket is tangible and visible and is experienced via the senses, brands are experienced through other dimensions apart from the sensory one. Other dimensions that can be relevant due to the specific characteristics of sport brands, are the affective and behavioural dimensions of brand experience (Brakus et al., 2009).

Finally, some of the constructs were operationalized with fewer items than in the original scales and some of the items were altered to fit the context of the study.

6.4 Directions for Future Research

Acknowledged in the previous section, future research could incorporate other dimensions of brand experience and explore their impact on different customer engagement behaviours. Given the impact of negative WOM, it would also be relevant to assess how negative experiences (behavioural, affective, sensory, and intellectual) affect specific customer engagement behaviours.

The impact of Product Involvement on WOM activity and on online interactions was very significant in this study. The influence of Product Involvement on other specific customer engagement behaviours deserves further inquiry. While this study found an important relationship between Product Involvement WOM activity and online interactions, other engagement behaviours such as blogging or participating in online brand communities may be influenced by this construct too.

Further research should also consider other relevant constructs that might have an effect on sport consumers' engagement behaviours. Illustrations of those constructs are commitment to the sport as well as sport enjoyment. These constructs have been identified as most relevant in this particular setting (Casper et al., 2007) and therefore may have a significant impact on the sport consumer-firm interaction.

More research is needed to assess the impact of customer engagement behaviours in the form of offline and electronic WOM on purchase behaviour, consumption and repeat purchase (Bolton, 2011). Also, qualitative studies are needed to explore other types of customer engagement behaviours displayed by sports consumers. Finally, other dimensions of customer engagement in this setting, not just the behavioural aspect but

also the cognitive, affective, and social dimensions are essential to further understand the dynamics of customer engagement (Brodie et al., 2011).

6.5 Conclusions

Drawing from current customer engagement literature, this dissertation investigated the direct effect of customer-based factors including Product Involvement and Sensory Brand Experience on sport participants' engagement behaviours in the form of WOM activity and online interactions. Also, the extent to which these relationships are contingent upon the sport participants' general tendency to include brands as part of their self-concept (BESC) as well as how frequently they play the sport was tested.

Recognizing the importance of customers' interactions with firms in creating value through meaningful connections that go beyond transactions, this study focused on different dimensions of WOM activity including Intensity, Positive Valence, and Content as well as on online interactions as behavioural displays of customer brand engagement. In line with previous conceptual and empirical research, Product Involvement and Sensory Brand Experience were hypothesised as independent variables. A positive direct effect on all dimensions of WOM activity as well as on online interactions was found.

The results of the analysis not only supported some of the hypothesized moderating effects of BESC on some relationships but they also showed significant direct effects on some WOM dimensions. For instance, the relationship between Product Involvement and the Content dimension of WOM was positively moderated by BESC. Also, BESC positively moderated the relationship between Sensory Brand Experience and both the

Intensity and Content dimensions of WOM. The direct effect of BESC on WOM Positive Valence and online interactions was noteworthy.

Frequency of playing the sport emerged as another significant variable in this study. In fact, all except for one of the hypotheses were supported. Excluding WOM Positive Valence, frequency of playing tennis had a significant moderating impact on the relationship between Product Involvement and WOM Intensity, Content and online interactions. Furthermore, the relationship between Sensory Brand Experience and all dimensions of WOM as well as online interactions were moderated by how frequently sport participants play the sport. Although less significant, frequency of playing tennis had a positive direct impact on all dimensions of WOM as well as on online interactions.

Together, the findings of this study point at the importance of socio-psychological and experiential constructs in enhancing customer engagement. While customer engagement metrics still need to be developed (Bolton, 2011), engagement behaviours allow marketing scholars and practitioners to further understand this evolving topic. Within this study, antecedents and other important moderating constructs that had a significant impact on customer engagement behaviours were studied. This dissertation is therefore expected to provide valuable insights for both marketing scholars and practitioners.

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Appendix 1

Participant Information Sheet



Date Information Sheet Produced:

29 August 2013

Project Title

The Role of Product Involvement and Sensory Brand Experience on Customer Engagement Behaviour

An Invitation

My name is **Juan Pablo Fernandez** and I am a Master of Business student at AUT University. I am conducting research on product involvement, brand experience and customer engagement behavioural outcomes as part of my Master of Business (Institute) program. I would like to invite you to participate in this research. The data collected will be used only for the stated purpose and all information will be kept confidential. You may withdraw your participation at any point during completion of the following questionnaire without any effect to your rights.

What is the purpose of this research?

The purpose of this research is to gain a further understanding on how product involvement and brand experience influence active tennis players' engagement with tennis brands. I am conducting this research for my Master of Business Dissertation.

How was I identified and why am I being invited to participate in this research?

You were identified because you are a tennis player who speaks fluent English, is 18 years or older, and has been playing tennis during the last 2 years.

What will happen in this research?

All you have to do is to complete a questionnaire, responding to the questions in relation to your involvement and experience with the tennis racket that you use, as well as to answer those questions with regards to behaviours that directly relate to

you as a tennis player. You will also be asked to provide some basic demographic information. The questionnaire is confidential. The completion of the questionnaire should take approximately 10 minutes. You may complete this now or take it with you to complete it at a later time, and return it using the prepaid envelope provided.

What are the discomforts and risks?

Experiencing discomforts by participating in this research is extremely unlikely. There are no risks involved in being part of this research.

What are the benefits?

The research outcomes will particularly benefit the academia, business and sports communities by learning how product involvement and brand experience influence the customers' engagement behaviours.

You will not be paid for participating in the research, however, to show appreciation for your time and efforts, you have the option of entering a draw for one of three Westfield vouchers. The winners will be randomly chosen among the interested participants of this research.

How will my privacy be protected?

All surveys are confidential. If you wish to participate in the draw, you will need to supply a means to contact you e.g. email or phone number. These will not be disclosed, and you will not be asked for your name. The research report will provide summary percentages and total numbers of responses (not linked to any individuals).

What are the costs of participating in this research?

There are no costs to you other than your time to fill out this questionnaire.

What opportunity do I have to consider this invitation?

You can take a few minutes to consider if you wish to participate in this research. You have the choice of either completing the questionnaire on the spot and returning in person or you can take it with you and complete later at a convenient time and mail back to me in the prepaid envelope provided within the next two weeks.

How do I agree to participate in this research?

By signing the attached consent form you give consent to partake in the research.

Will I learn about the outcomes of this research?

A synopsis of the results will be available at the following link once the data is analysed:

<https://www.dropbox.com/s/ubcbbo22eatwvo8/The%20Role%20of%20Product%20Involvement%20and%20Brand%20Experience%20on%20Customer%20Engagement%20Behaviours%20-%20Summary%20of%20Results.docx>

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the project supervisor, Dr. Sanjaya Gaur at sgaur@aut.ac.nz or 09 921 9999 ext. 5465

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEC, Kate O'Connor at kate.oconnor@aut.ac.nz or 09 921 9999 extn. 6038

Whom do I contact for further information about this research?

Researcher contact details: **Juan Pablo Fernandez**, jpfernandez9@me.com

Project Supervisor contact details: Dr. Sanjaya Gaur, sgaur@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on 26 September 2013, AUTEC Reference number 13/256.

Consent Form



Project title: ***The Role of Product Involvement and Sensory Brand Experience on Customer Engagement Behaviour***

Researcher: **Juan Pablo Fernandez**

Project Supervisor: *Dr. Sanjaya Gaur*

- I have read and understood the information provided about this research project in the Information Sheet dated 29 August 2013.
- I have had an opportunity to ask questions and to have them answered.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- I agree to take part in this research.
- I wish to receive a copy of the report from the research (please tick one):
Yes No

Participant's signature:
.....

Participant's name:
.....

Participant's Contact Details (if appropriate):
.....
.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 26 September 2013, AUTEK Reference number 13/256.

Research Questionnaire



The Role of Product Involvement and Sensory Brand

Experience on Customer Engagement Behaviour

Please fill out the questionnaire independently, without consulting anyone.

Section 1.

In order to have a broader perspective of how you engage with brands in general, please indicate the extent to which you agree or disagree with the following statements. (1 = “Strongly disagree” to 7 = “Strongly agree”).

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat agree	Agree	Strongly Agree
1. I have a special bond with the brands that I like.	1	2	3	4	5	6	7
2. I consider my favourite brands to be part of myself.	1	2	3	4	5	6	7
3. I often feel a personal connection between my brands and me.	1	2	3	4	5	6	7
4. I feel as if I have a close personal connection with the brands I most prefer	1	2	3	4	5	6	7
5. I can identify with important brands in my life.	1	2	3	4	5	6	7
6. There are links between the brands that I prefer and how I view myself	1	2	3	4	5	6	7
7. My favourite brands are an important indication of who I am	1	2	3	4	5	6	7

Section 2.

8. Please write the tennis racket brand you currently play tennis with. Try to be as specific as possible (For example: HEAD Prestige Pro, WILSON BLX Pro Staff, BABOLAT Aero Pro Drive, PRINCE EXO3 Rebel, YONEX V Core Xi, etc.):
-

Now we would like you to respond to the following questions which address the degree of your interest in relation to your tennis racket. To take this measure, we need you to judge your tennis racket against a series of descriptive scales according to how **YOU** perceive your tennis racket.

Please place only one check mark per line. For example, if you feel that your tennis racket is ***very closely related*** to one end of the scale, you should place your check mark as follows:

important **X** : ____ : ____ : ____ : ____ : ____ : ____ unimportant
or
important ____ : ____ : ____ : ____ : ____ : ____ : **X** unimportant

If you feel that your tennis racket is ***quite closely related*** to one or the other end of the scale (but not extremely), you should place your check mark as follows:

Appealing ____ : **X** : ____ : ____ : ____ : ____ : ____ Unappealing
or
Appealing ____ : ____ : ____ : ____ : ____ : **X** : ____ Unappealing

If you feel that your tennis racket seems ***only slightly related*** (but not really neutral) to one end of the scale, you should place your check mark as follows:

Uninterested ____ : ____ : **X** : ____ : ____ : ____ : ____ Interested
or
Uninterested ____ : ____ : ____ : ____ : **X** : ____ : ____ Interested

Important

- a) Be sure that you check every statement; do not omit any.
- b) Please do not put more than one check mark on a single statement.

There are no wrong or right answers. Please fill in the scale in the next page in accordance to your current judgement of your tennis racket.

9. To me, **my tennis racket** is:

important	___ : ___ : ___ : ___ : ___ : ___ : ___	unimportant
of no concern to me	___ : ___ : ___ : ___ : ___ : ___ : ___	of high concern to me
irrelevant	___ : ___ : ___ : ___ : ___ : ___ : ___	relevant
valuable	___ : ___ : ___ : ___ : ___ : ___ : ___	worthless
trivial	___ : ___ : ___ : ___ : ___ : ___ : ___	fundamental
beneficial	___ : ___ : ___ : ___ : ___ : ___ : ___	not beneficial
uninterested	___ : ___ : ___ : ___ : ___ : ___ : ___	interested
significant	___ : ___ : ___ : ___ : ___ : ___ : ___	insignificant
vital	___ : ___ : ___ : ___ : ___ : ___ : ___	superfluous
boring	___ : ___ : ___ : ___ : ___ : ___ : ___	interesting
undesirable	___ : ___ : ___ : ___ : ___ : ___ : ___	desirable
wanted	___ : ___ : ___ : ___ : ___ : ___ : ___	unwanted

Section 3.

Please indicate the extent to which the following statements describe your experience with the tennis racket brand that you currently play tennis with. (1 = “not at all descriptive” to 7 = “extremely descriptive”)

	Not at all	A little bit	Somewhat	Moderately	Quite a bit	Very much	Extremely
10. This brand makes a strong impression on my visual or other senses.	1	2	3	4	5	6	7
11. I find this brand interesting in a sensory way	1	2	3	4	5	6	7

Section 4.

Please indicate the extent to which you agree or disagree with the following statements. (1 = “Completely disagree” to 7 = “Completely agree”).

	Completely Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat agree	Agree	Completely Agree
12. I speak of the racket brand I play tennis with at the tennis club or at other tennis events such as tennis competitions.	1	2	3	4	5	6	7
13. I speak of the racket brand I play tennis with outside the tennis club or other tennis events such as tennis competitions.	1	2	3	4	5	6	7
14. I speak of the racket brand I play tennis with much more frequently than about any other tennis racket brand.	1	2	3	4	5	6	7
15. I speak of the racket brand I play tennis with more frequently than about brands of any other type.	1	2	3	4	5	6	7
16. I have verbally recommended the racket brand I play tennis with to others.	1	2	3	4	5	6	7
17. I usually speak about the good sides of the racket brand I play tennis with.	1	2	3	4	5	6	7
18. I proudly say to others that I play with the tennis racket brand that I use.	1	2	3	4	5	6	7
19. I have shared concerns with others about whether or not the racket I play tennis with is the right option for me.	1	2	3	4	5	6	7
20. I have spoken unflatteringly of the racket I play tennis with to others.	1	2	3	4	5	6	7
	Completely Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat agree	Agree	Completely Agree

21. I visit the racket brand's website I play tennis with.	1	2	3	4	5	6	7
22. I have posted comments in relation to my tennis racket in social media sites such as Facebook, Twitter, or others.	1	2	3	4	5	6	7
23. I have posted "likes" or other ratings in relation to my tennis racket in online sites such as Facebook, YouTube, Tennis-Warehouse, TennisExpress, or others.	1	2	3	4	5	6	7
24. I have given product reviews of my tennis racket in an online site.	1	2	3	4	5	6	7
25. I discuss issues in relation to my tennis racket such as spin, power and control.	1	2	3	4	5	6	7
26. I discuss issues in relation to my tennis racket such as the head size, string pattern, weight, stringing tension, and grip size.	1	2	3	4	5	6	7
27. I discuss issues in relation to my tennis racket such as manoeuvrability, stability, solidness, flexibility or rigidness.	1	2	3	4	5	6	7
28. I discuss issues in relation to the materials and new technological advances (such as composite graphite, carbon or other fibres, aerogels, etc.) my tennis racket is designed with.	1	2	3	4	5	6	7
29. In relation to the tennis company (e.g. WILSON, etc.) that manufactures my tennis racket I discuss the variety of racket models and other products such as strings, grips, clothing and other items the company offers.	1	2	3	4	5	6	7

Section 5.

The following questions are about factors that relate to you as a tennis player. Also, this section includes questions related to relevant demographic characteristics that are important to the aim of this research.

30. Approximately, how many years have you been playing tennis for? _____

31. In average, how many **days per week** do you play tennis? _____

32. How long have you been playing with the tennis racket brand (e.g. Head, Wilson, Prince, etc.) that you currently use? _____

33. If you participate in interclub competition, what grade do you usually compete at? (Please tick one). In case you don't play interclub competition please go to question 51.

<input type="checkbox"/> Carobowl	<input type="checkbox"/> Second grade	<input type="checkbox"/> Presidents A
<input type="checkbox"/> Carobowl Reserve	<input type="checkbox"/> Open 1 or Open 2	<input type="checkbox"/> Open Presidents 1 or 2
<input type="checkbox"/> Ferrier Cup	<input type="checkbox"/> Open 3 or Open 4	<input type="checkbox"/> Open Presidents 3 or 4
<input type="checkbox"/> First grade	<input type="checkbox"/> Open Men's 5 to 10	<input type="checkbox"/> Open Presidents 5 or 6

34. From the options below, choose the one that best describes your tennis grade. (Please tick one).

SINGLES	DOUBLES
<input type="checkbox"/> S1 – S3	<input type="checkbox"/> D1 – D3
<input type="checkbox"/> S4 – S6	<input type="checkbox"/> D4 – D6
<input type="checkbox"/> S7 – S9	<input type="checkbox"/> D7 – D9
<input type="checkbox"/> S10 – S12	<input type="checkbox"/> D10 – D12

35. What is your gender? (Please tick) Male Female

36. What is your age? (Please tick)

- | | | |
|--|--|-----------------------------|
| <input type="checkbox"/> 18-24 years old
years or older | <input type="checkbox"/> 45-54 years old | <input type="checkbox"/> 75 |
| <input type="checkbox"/> 25-34 years old | <input type="checkbox"/> 55-64 years old | |
| <input type="checkbox"/> 35-44 years old | <input type="checkbox"/> 65-74 years old | 55. |

37. What is your highest level of education? (Please tick one)

- Elementary school
- Intermediate
- High School
- College degree (completed or in progress)
- Graduate degree (completed or in progress)
- Postgraduate degree (completed or in progress)

38. Which ethnic group do you belong to? (Please mark the space or spaces that apply to you).

- New Zealand European
- Māori
- Samoan
- Cook Island Maori
- Tongan
- Niuean
- Chinese
- Indian
- other such as DUTCH, JAPANESE, TOKELAUAN. Please state: ____

THANK YOU VERY MUCH FOR YOUR TIME AND
EFFORT !!!

Enjoy your game !

Juan Pablo