

# **INVESTIGATING THE EFFECT OF ONLINE BRAND COMMUNITY CHARACTERISTICS ON CUSTOMER ENGAGEMENT**

**Ph.D. THESIS**

*by*

**JAMID UL ISLAM**



**DEPARTMENT OF MANAGEMENT STUDIES  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
ROORKEE – 247 667 (INDIA)  
JANUARY, 2018**

# **INVESTIGATING THE EFFECT OF ONLINE BRAND COMMUNITY CHARACTERISTICS ON CUSTOMER ENGAGEMENT**

**A THESIS**

*Submitted in partial fulfilment of the  
requirements for the award of the degree*

*of*

**DOCTOR OF PHILOSOPHY**

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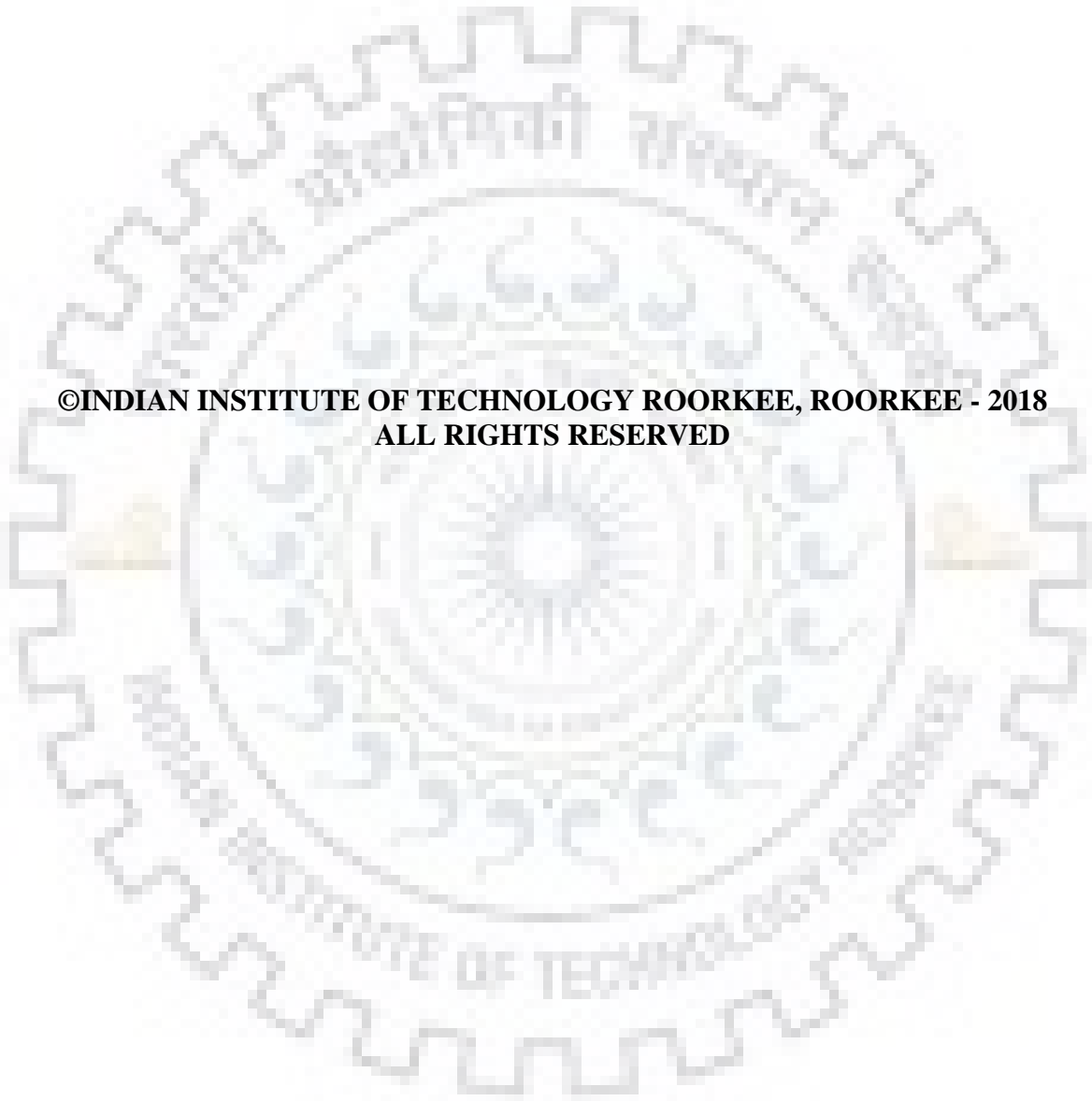
**MANAGEMENT STUDIES**

*by*

**JAMID UL ISLAM**



**DEPARTMENT OF MANAGEMENT STUDIES  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
ROORKEE – 247 667 (INDIA)  
JANUARY, 2018**



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## CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the thesis entitled **“INVESTIGATING THE EFFECT OF ONLINE BRAND COMMUNITY CHARACTERISTICS ON CUSTOMER ENGAGEMENT”** in partial fulfilment of the requirements for the award of the Degree of Doctor of Philosophy and submitted in the Department of Management Studies of the Indian Institute of Technology Roorkee, Roorkee is an authentic record of my own work carried out during a period from July, 2014 to January, 2018 under the supervision of Dr. Zillur Rahman, Associate Professor and Head of the Department of Management Studies, Indian Institute of Technology Roorkee, Uttarakhand.

The matter presented in the thesis has not been submitted by me for the award of any other degree of this or any other Institute.

**(JAMID UL ISLAM)**

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

**(Zillur Rahman)**  
Supervisor

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**Dated:.....**

**Head of the Department**

## ABSTRACT

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In the modern era of digital technology and social media, where business organizations are largely competing for customer attention; online brand communities offer distinctive opportunities to engage customers to deep and meaningful levels. In online brand communities, customers engage in interactive experiences with brands and other members beyond simple purchases (Brodie et al., 2013), thereby creating more stable and long-lasting relationships with brands as well as other members (Islam and Rahman, 2016; Sashi, 2012; Vivek et al., 2014). Given that as many as 2.2 billion people globally used social media in the year 2016 and this population is expected to reach 3 billion by the year 2020 (Statista, 2016); strategic customer insight focusing on social media is indispensable for brands (Dessart, 2017). Since social networking platforms are open and independent (Zhang et al., 2017), customers can easily follow several brand communities and can turn to any brand community for similar content, similar product or service; therefore, it is a crucial task for organization to hold customers with them by engaging them in various brand-related interactions (Hollebeek 2011a; Dwivedi, 2015).

Customer engagement in online brand communities has become a strategic tool for marketers to facilitate consumer trust, purchase intention, loyalty, and consequently, organizational profitability (Dessart et al., 2015; Hollebeek, 2011a; Islam and Rahman, 2016a). However, it has also posed a challenge to organization on how to attract customers and engage them in generating content, co-creating brand experience and value, referring brands to others, and assisting in service innovations (Baldus et al., 2015; Brodie et al., 2013; Jaakkola and Alexander, 2014). To overcome such a challenge, academics and organizations have shown an overwhelming interest in exploring online brand communities and the ways in which customers engage in these communities (Islam et al., 2017a; Naidoo and Hollebeek, 2016; Zhou et al., 2014). Despite a huge interest in the organizational as well as scholarly quest for customer engagement, little is known about what motivates customers to continuously interact on these communities (Baldus et al., 2015; Brodie et al., 2013; Islam and Rahman, 2017; MSI, 2016). Gaining a strong knowledge of the motivations that drive customers to engage in online brand communities can help practitioners in achieving excellence by improving the operational standards for this advanced platform of brand communication. However, while the relevance of

customer engagement has largely been acknowledged, it has received relatively less research attention, especially in context of developing economies.

Given that certain key characteristics of online brand communities play an important role in driving customers towards joining the brand communities, the present study seeks to examine, with the help of a proposed conceptual model, the influence of online brand community characteristics (system quality, information quality, reward, and virtual interactivity) on customer engagement and the subsequent effect of customer engagement on brand loyalty, taking into account the moderating role of gender. The Stimulus-Organism-Response theory has been adopted as the theoretical background to justify the proposed conceptual model of this study. After carrying out an extensive literature review on customer engagement and a brief review of customer engagement in online brand communities, this study has undertaken a quantitative cross sectional survey research design for empirically investigating the proposed conceptual model. A self-administered questionnaire survey was conducted among students of four selected universities in Delhi, India. Only those students were taken as the respondents of this study who had an active Facebook account and were members of at least one online brand community. A total of 356 valid responses were taken for the statistical analysis for this study. Testing of various hypotheses pertaining to conceptual model was performed using Structural Equation Modeling (SEM) in AMOS 22.0.

Findings of this study revealed that at the cumulative level, each of the characteristics of online brand communities positively influences customer engagement, with system quality and information quality bearing the strongest influence. Customer engagement also has a strong positive impact on brand loyalty. Results of the moderation analysis revealed that the impact of all the four characteristics of online brand communities on customer engagement is consistent across male and female members.

The key contribution of present research is the formulation of a robust model that explains the customer engagement concept in the context of online brand communities and demonstrates that online brand community characteristics including system quality, information quality, reward, and virtual interactivity drive customer engagement which in turn has a significant positive influence on brand loyalty. Besides, the systematic literature review of customer engagement carried out by the study provides a detailed understanding of the current state of customer engagement research and offers comprehensive information to researchers with

respect to the avenues for future research. This study also contributes to the engagement literature by offering a preliminary understanding of online brand community-based customer engagement in a non-Western collectivist, emerging economy (Indian) context. Several managerial implications are also provided by the present study.

**Key Words:** Customer engagement, Online brand community, System quality, Information quality, Reward, Virtual interactivity, Brand loyalty, Gender.



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Research, they say, is the romance of the mind. It is an unconditioned/mysterious- sometimes wild and vicious- journey into the realms of the unknown and unbelievable, and a mere thesis is not its destination but a new beginning.

A study like this calls for professional acumen and encouragement, intellectual nourishment, and spiritual sapience along the road. At the very outset, I must thank Almighty Allah, the Supreme Spring of all Knowledge and Wisdom for all that I, the blessed rendezvous of body, mind and soul, have been endowed with.

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## LIST OF ABBREVIATIONS

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Abbreviations	Full Form
AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
AVE	Average Variance Extracted
BL	Brand Loyalty
CE	Customer Engagement
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Construct Reliability/Composite Reliability
DF	Degree of Freedom
GFI	Goodness of Fit Index
IFI	Incremental Fit Index
IQ	Information Quality
MSI	Marketing Science Institute
NFI	Normed Fit Index
OBC	Online Brand Communities
PCA	Principal Component Analysis
RMSEA	Root Mean Square Error of Approximation
RW	Reward
SD	Standard Deviation
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
SQ	System Quality
TLI	Tucker-Lewis Coefficient
UGC	University Grants Commission
UK	United Kingdom
USA	United States of America
VI	Virtual Interactivity

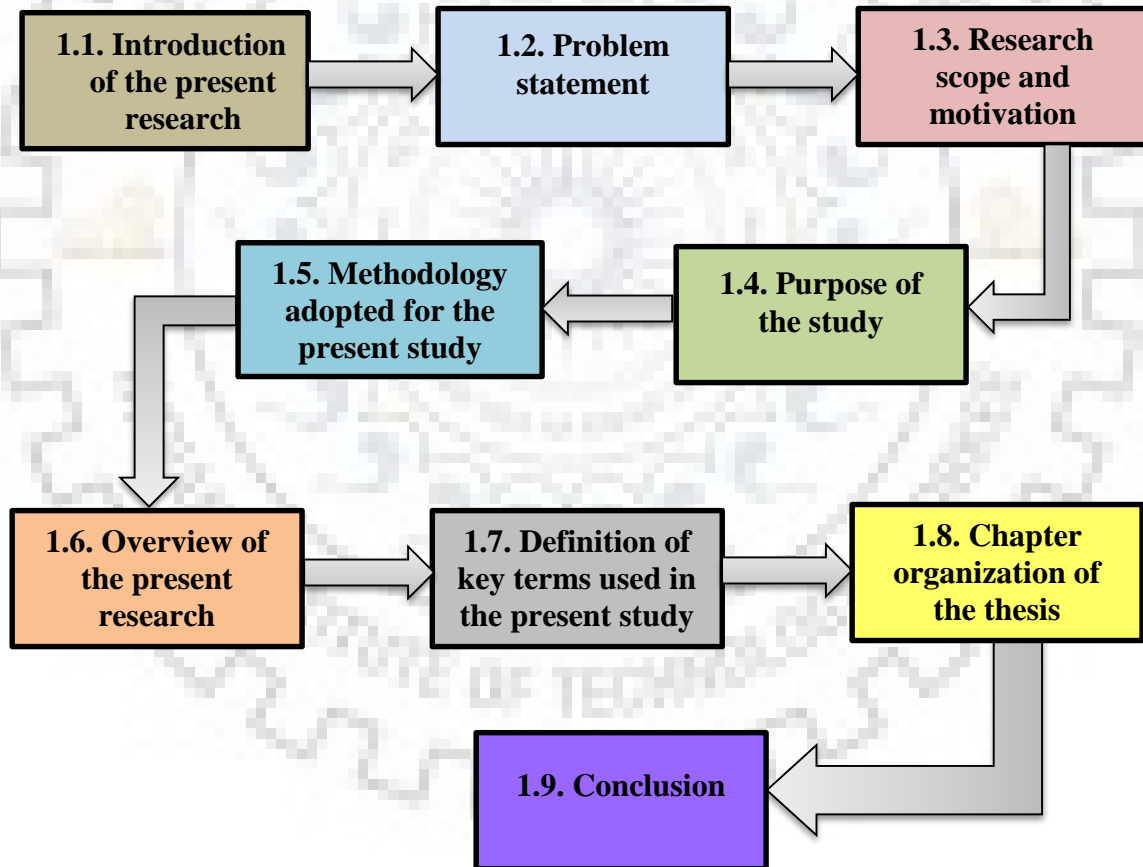
# Chapter 1

## INTRODUCTION

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This chapter introduces the present thesis and provides its research background. The chapter also presents various research gaps identified from previous literature. The research scope and motivation for the present research along with the purpose, research questions and objectives, and research methodology adopted by this study is also presented. The chapter concludes with an overview of the present research and organization of chapters in the thesis followed by brief concluding remarks. The structure of the present chapter is depicted in Figure 1.1.

**Figure 1.1 Structure of Chapter 1**



## **1.1. INTRODUCTION TO THE PRESENT RESEARCH**

In recent years, emerging technologies, including social networking sites, have become increasingly important in consumers' lives and have affected their communication with products, brands and firms (Baumöl et al., 2016; Büyüközkan et al., 2007; Hassan and Casaló Ariño, 2016; Sahney, 2008; Sasser et al., 2014). Present-day advancements in digital, interactive platforms have led to enhanced information sharing among individuals (Isaid and Faisal, 2015; Khan et al., 2015; Pandey and Wali, 2010). Specifically, this digital revolution has given firms access to huge data (Aeron et al., 2010; Aeron et al., 2012) and the digital platforms have enabled individuals to engage in increasing levels of interactivity with others to meet personal and/or mutual objectives (Dholakia et al., 2004; Verma, 2015). As global consumers are becoming more and more adept with these digital platforms, organizations are increasingly attempting to engage them in their online brand communities, which have been reported to facilitate the development of positive word-of-mouth, referrals, consumer trust, purchase intention and loyalty, and consequently, organizational profitability and competitive advantage (Dessart et al., 2015; Hollebeek, 2011a; Islam and Rahman, 2016, 2016a; Wirtz et al., 2013).

Since 2004, online brand communities have grown exponentially, with almost 50 percent of the top 100 global brands having established online brand communities today (Manchanda et al., 2015), including Apple, BMW, and Louis Vuitton, to name a few. An online brand community is defined as “a specialized, non-geographically bound community based on a structured set of social relations among admirers of a brand” (Muniz and O’Guinn, 2001, p. 412). Typically, online brand communities provide platforms for customers to share their experiences with, and feelings towards, particular brands (Cheung and Lee, 2012; Islam and Rahman, 2016) and allow brands to post brand-related messages, generate brand-related content, develop a significant number of followers, develop or maintain customer relationships, and offer enhanced customer/brand interaction within real-time (Ashley and Tuten, 2015; Lipsman et al., 2012).

Social networking sites have remarkably transformed the communication practices by customers and organizations worldwide (Hodeghatta and Sahney, 2016; Lee et al., 2014; Rathore et al., 2016). Customers have become agile in impelling conversations with organizations through online networks in general and brand communities in particular. Under such a highly networked era, the development of a loyal customer base is the real organizational challenge (Hollebeek and Brodie, 2016). Organizations are interested in identifying superior drivers of

brand loyalty as compared to conventionally used marketing conceptions like customer satisfaction and perceived service quality (Bowden, 2009; Islam and Rahman, 2016a). Recent studies reveal that both large brands (70%), as well as small businesses (80%), tend to use social media to improve their business performance (Social Media Today, 2014). To illustrate, in 2014 88% of surveyed customers affirmed that they follow online reviews to make purchase decisions, and consider these to be reliable (BrightLocal, 2014). Moreover, online brand communities create value by building or maintaining consumer/brand relationships, expediting the development of customer-generated content, and enhancing the online purchase experience (Islam and Rahman, 2016a; Schivinski et al., 2016).

Regardless of the extensive adoption of online brand communities and the organizational quest for engaging customers therein, scanty literature is available regarding what motivates customers to continuously interact on these communities (Baldus et al., 2015). To boost returns on the investments made in creating online brand communities, marketers require finer customer insights about the motivations to engage in these brand communities and the resulting benefits (attitudinal and financial) to the brand (Brodie et al., 2013; Ramaswamy, 2009). Better knowledge of the engagement motivations can help in achieving excellence by improving the operational standards for this advanced platform of brand communication. Because large number of customers spend time with online brand communities, it is worthwhile to explore customers' motivation in participating and engaging with them (Brodie et al., 2013; Baldus et al., 2015). Given online brand communities' reported beneficial outcomes, including enhanced brand trust, positive word-of-mouth, purchase intentions, and loyalty, academics and organizations have shown a staggering interest in online brand communities and the ways in which customers engage on these platforms (Kelley and Alden, 2016; Naidoo and Hollebeek, 2016; Zhou et al., 2014).

Before transpiring into the marketing discipline, the concept of "engagement" was studied in other academic disciplines like organizational behavior and psychology (Hollebeek et al., 2014; Dessart et al., 2015). Since 2005, the term "customer engagement" has been increasingly used in marketing literature (Brodie et al., 2013) and has emerged as an influential research stream. While Marketing Science Institute declared customer engagement as a key research priority in their research priorities list of 2012-2014, 2014-2016 as well as 2016-2018 (MSI, 2012, 2014, 2016), Kumar (2015) also suggests it as an emerging research area that needs

scholarly attention. The current state of research on consumer engagement is relatively incipient (Dessert et al., 2015; Hollebeek and Chen, 2014). The prevailing business environment demands organizations to implement customer management strategies that go beyond transactions, which are encapsulated in the customer engagement concept (Wei et al., 2013; Groeger et al., 2016; Vivek et al., 2017). A level of debate exists regarding the engagement's conceptualization. For example, while Brodie et al. (2011, p. 258) define customer engagement as a "a psychological state, which occurs by virtue of interactive customer experiences with a focal object," Hollebeek et al. (2016, p. 6) denote the concept as a customer's "volitional investment of operant resources (including cognitive, emotional, behavioral, and social knowledge and skills), and operand resources (e.g. equipment) into brand interactions." This study adopts one of the mostly widely used Hollebeek et al.'s (2014, p. 154) conceptualization, which defines consumer engagement as "a consumer's positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions." This conceptualization is in sync with the scale used to measure customer engagement in this study.

Some valuable models that may help marketers in improving customer engagement with their online brand communities are much needed. Given the paucity of research in this domain indicates the need of assessing customer engagement in online brand communities. Considering the fact that literature to explain the joint impacts of online brand community characteristics on customer engagement is almost absent, this research has attempted to fill these research gaps and develop a model that comprehensively examines some customer motivations to engage with online brand communities on Facebook and the resulting effect of customer engagement on brand loyalty. The model tests the possible effects of online brand community characteristics (system quality, information quality, reward, and virtual interactivity) on customer engagement and the subsequent effect of customer engagement on brand loyalty, taking into account the moderating role of gender. The present study is expected to act as a guide for practitioners and academics working in the field of managing customer engagement. It is also expected that this study would assist them in tackling various customer engagement issues through effective and intelligent decision making.

## 1.2. PROBLEM STATEMENT

In the present market scenario, technological advancement and fierce competition coupled with the outburst of product choices and increasingly well-informed customers require organizations to get closer to their customers by engaging them at all possible touch points (Baki et al., 2004; Baykasoğlu and Gölcük, 2017; Islam and Rahman, 2016a). The stiff competitive environment demands organizations and academia to vigorously work on various aspects related to customer engagement in online brand communities. Gallup's research found that "fully engaged" banking customers accounted for a 37 percent increase in annual revenue to their banks than "actively disengaged" customers. Similarly, "fully engaged" consumer electronics shoppers accounted for a 44 percent increase annually in their visits to their preferred retailers than "actively disengaged" shoppers and the spending of "fully engaged" hotel guests accounted for a 46 percent hike annually than "actively disengaged" customers (Gallup Report, 2014). In the recent few years, research on customer engagement in the context of online brand communities has gained a significant heed (Dessart et al., 2015) but the empirical exploration in this domain is still underdeveloped (Brodie et al., 2013). Earlier studies have emphasized the need to examine brand community characteristics and their impact on customer engagement (e.g., Brodie et al., 2013; De Valck et al., 2009) because these characteristics reflect a customer's overall impression of a brand community. Specifically, a need exists to examine the directionality and strength of relevant constructs' theoretical link to customer engagement, thus identifying and empirically validating particular customer engagement antecedents and consequences (Hollebeek, 2011a; Banyte et al., 2014; Islam and Rahman, 2016b; Hollebeek et al., 2016), as undertaken in this study.

A few studies have illustrated online brand community characteristics and their impact on satisfaction, commitment, and brand awareness (Barreda et al., 2015; Jang et al., 2008). However, studies exploring brand community characteristics and the paths through which these characteristics cause customer engagement are rare (Kang et al., 2016). Furthermore, in the context of online brand communities, scant research has analyzed the role of potential gender effects on ensuing customer engagement; thus necessitating further research in this area (Cambra-Fierro et al., 2015; Verbraken et al., 2014; Zhang et al., 2014). Hence, this study is an attempt to investigate the customer engagement concept by developing a model that comprehensively examines some customer motivations to engage with online brand communities



and the resulting effect of customer engagement on brand loyalty by conducting a self-administered questionnaire survey among students of four selected universities in Delhi, India. The current study is the first of its kind to conclusively investigate whether and how the unique characteristics (the building blocks) of online brand communities predict customer engagement in a non-western cultural setting.

### **1.3. SCOPE AND MOTIVATION FOR THE PRESENT RESEARCH**

Contemporary consumers tend to actively contribute to a range of marketing activities, including product and service innovation, firm-related communication (e.g. by disseminating brand-related word-of-mouth), etc. (Malthouse et al., 2013; Hollebeek et al., 2016). Consequently, customers are increasingly being referred to as “pseudo-marketers,” or “co-producers,” who tend to be a highly credible source to other consumers, thus incurring cost reductions for firms (Kozinets et al., 2010). Such consumers’ participatory stance thus offers a significant opportunity to firms, which has led to an outburst of interest in customer engagement. To illustrate, while a Google search returned 0 hits for customer engagement in 2007, customer engagement has returned approximately six million search hits in 2016 (Harmeling et al., 2016). Consequently, organizations are investing considerable resources in the development of customer engagement (Verhoef et al., 2010; Hollebeek et al., 2014). With the rise in consumers’ Facebook-based online brand community usage, researchers are showing increasing interest in the ways in which firms can leverage customer engagement in these communities (Brodie et al., 2013; De Vries and Carlson, 2014; Dessart et al., 2015). Since customers spend considerable time interacting with online brand communities, it is worthwhile to explore the dynamics typifying their engagement in these environments (Baldus et al., 2015).

This research is further motivated by Marketing Science Institute’s (MSI) call in their research priorities list of 2010-2012 as well as 2014-2016 for increased scholarly attention in the area of consumer engagement (MSI, 2010; 2014; 2016). The need to better understand customer engagement in online brand communities has also been documented by a large number of studies (e.g., Bitter and Grabner-Kräuter, 2016; Islam and Rahman, 2016b; Khan et al., 2016). Additionally, based on the gaps identified in Chapter 2 of the present research, it is evident that there is ample scope for further research in this domain. Some of the key issues that motivated the researcher to undertake the present research are discussed as follows:

1. There are more than 38 refereed international journals that have published research articles on customer engagement. All the customer engagement articles reported by these journals have clearly highlighted the importance and scope of research on customer engagement.
2. Customer engagement is comparatively a novel area of study in Indian context. The literature review presented in Chapter 2 reveals that of the 66 studies, there are only 3 studies on customer engagement in Indian context. It is, therefore, important to conduct customer engagement studies incorporating an Indian sample because India is representing the most rapidly expanding markets with huge business opportunities for multinational companies.
3. One of the key gaps identified from the literature review is that scanty literature is available regarding which online brand community characteristics motivate customers to continuously interact on these communities. Therefore, there is a need to examine the impact of key brand community characteristics on customer engagement because these characteristics reflect a customer's overall impression of a brand community.
4. In the context of online brand communities, scant research has analyzed the role of potential gender effects on ensuing customer engagement; thus necessitating further research in this area.
5. There exists a need to develop and test (empirical) models that examine the relationship between consumer engagement and other relevant other concepts like brand loyalty within the nomological network. Examining the effect of customer engagement on brand loyalty represents an important verification of engagement's true marketing impact.

### **1.3.1. Why Customer Engagement in Online Brand Communities on Facebook?**

“Engage or die” has become the current marketing watchword, which emerged with the advent of digital world, especially due to the emergence of social media (Nelson-Field and Taylor, 2012). Social media has facilitated the firms as well as customers to share information on real-time basis with each other via online brand communities (Chen and Macredie, 2010). People can spontaneously join their preferred brand communities on social networking sites and engage through these online brand communities by participating in the ongoing conversations (e.g., sharing their experiences with the brand, providing comments on videos, pictures, etc.). With



their unprecedented communicative and interactive capabilities, online brand communities warrant organizations to enhance brand awareness (Barreda et al., 2015), magnify trust (Nadeem et al., 2015), generate positive word of mouth (Wang et al., 2015), heighten customer brand loyalty (Zheng et al., 2015), and achieve competitive advantages while marketing their offerings (Jang et al., 2008). The last decade has seen a thriving research interest with respect to customer engagement in online brand communities (Habibi et al., 2014; Islam and Rahman, 2016b; Zhang and Luo, 2016). Academicians as well as practitioners have made the topic of engagement central to their discussion. A large number of conferences, commentaries, seminars, and research papers have suddenly started talking about customer engagement, which was not present in the marketing context a decade ago (Brodie et al., 2011; Vivek et al., 2012).

Facebook is one of the most popular social networking sites on which various brands have created their communities. General Motor's \$30 million annual investment on simply generating content for their online community on Facebook and their plans to continue such investment is a vivid example of this (Barkholz and Rechten, 2012). Firms are creating their brand communities on Facebook with their own unique purposes, but universally the communities represent marketing investments of these firms to build long-term relationship with their customers by facilitating communication between the firm and its customers (De Valck et al., 2009; Zaglia, 2013). However, many organizations struggle with employing social media for effective marketing communication functions, especially with keeping customers engaged. Therefore, there is a critical need of empirical studies revealing the factors motivating consumers to interact with brands via online brand communities on Facebook so that effective social media communication strategies are framed by marketers (Brodie et al., 2013; Hollebeek et al., 2014; Islam and Rahman, 2016, 2016b; Tsai and Men, 2014). Conclusively, this study finds the requirement for a comprehensive understanding of customer engagement in online brand communities available on the famous social networking site- Facebook.

#### **1.4. PURPOSE OF THE STUDY**

Considering the gaps identified through the literature review, the purpose of the present study is twofold: first, to propose and test (empirically) a conceptual model that investigates various predictors of customer engagement in online brand communities; and second, to provide recommendations and implications for marketers and policy makers so as to assist them in tackling various customer engagement issues through effective and intelligent decision making.

The purpose of the research is achieved through the following objectives and research questions. How the research gaps have been transformed into research objectives is shown in Figure 1.2.

#### **1.4.1. Objectives of the Study**

The primary objective of this study is to introduce and examine a comprehensive model of customer engagement in the context of online brand communities that is straightforward and practical in application; includes key predictors directly related to online brand communities; and assists marketers in building and maintaining long term customer relationships and manage a loyal customer base by engaging their customers with their online brand communities. Hence, the objectives are:

- ❖ **Objective 1:** To develop a conceptual model of customer engagement in online brand communities.
- ❖ **Objective 2 (a):** To examine the proposed path relationships in the conceptual model by studying the effect of key characteristics of online brand communities (i.e system quality, information quality, reward, and virtual interactivity) on customer engagement.
- ❖ **Objective 2 (b):** To examine the effect of customer engagement on brand loyalty.
- ❖ **Objective 3:** To examine the moderating role of gender on customer engagement.

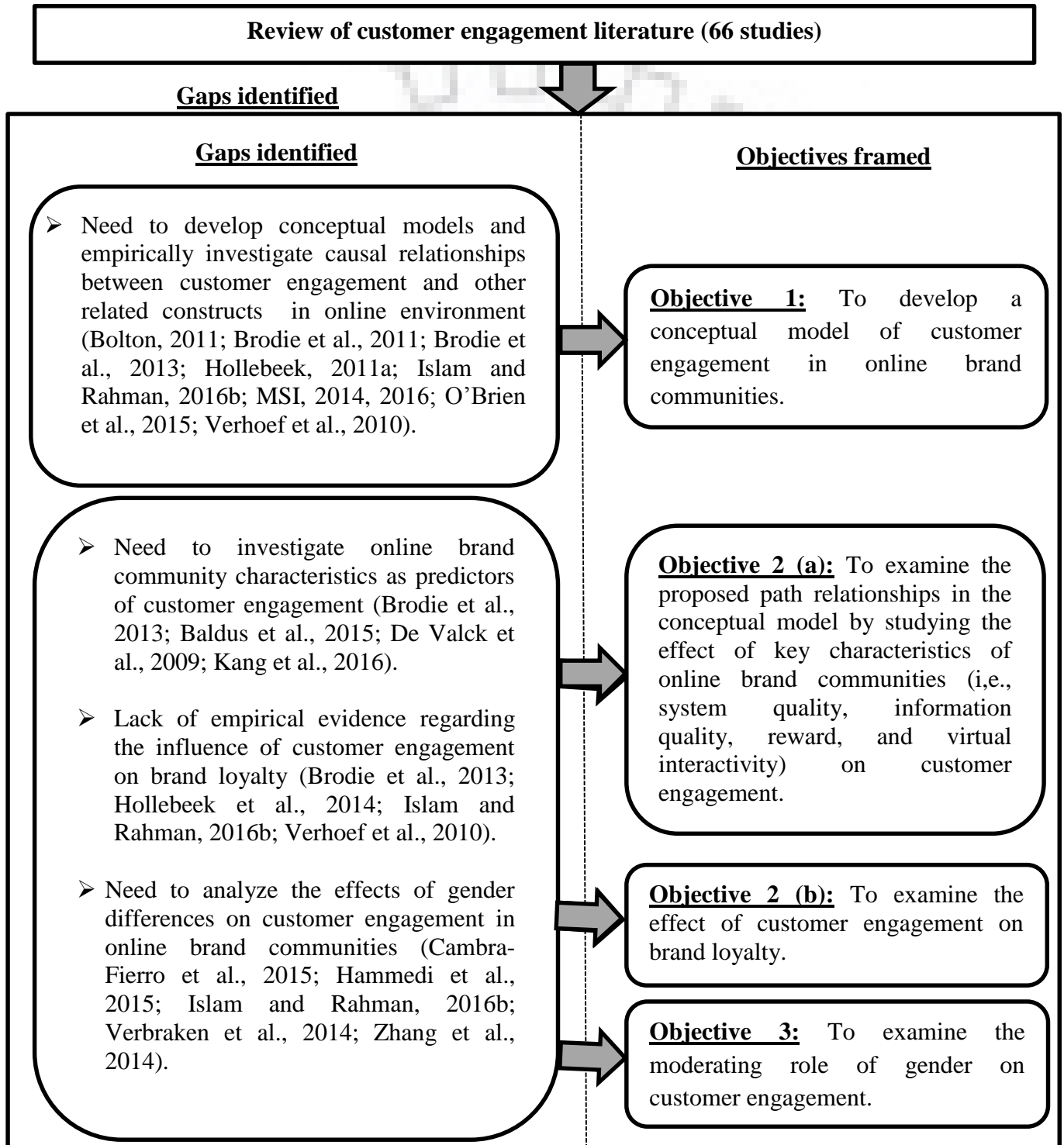
#### **1.4.2. Research Questions**

The research questions provide step-by-step directions to solve a research problem. The general research question for this study is: How well does the proposed model explain customer engagement? However, to achieve the research objectives mentioned above, the following three research questions have been formulated:

- **RQ1.** Whether and how do the key characteristics of an online brand community (viz. system quality, information quality, reward, and virtual interactivity) affect customer engagement?
- **RQ2.** Whether and how does customer engagement affect brand loyalty?
- **RQ3.** Does gender moderate the proposed relationship between the characteristics of online brand communities and customer engagement?

These questions directly determine the proposed conceptual model as shown in Figure 3.1 in Chapter 3, and the six proposed hypotheses that relate to the respective variables included in the proposed model. The model and hypotheses will be discussed in Chapter Three.

**Figure 1.2 Transformation of research gaps into research objectives**



## **1.5. METHODOLOGY ADOPTED FOR THE PRESENT RESEARCH**

The objectives of the present study are: (1) to develop a conceptual model of customer engagement in online brand communities; (2a) to examine the proposed path relationships in the conceptual model by studying the effect of key characteristics of online brand communities on customer engagement; (2b) to examine the effect of customer engagement on brand loyalty; and (3) to examine the moderating role of gender on customer engagement. To accomplish these objectives, a review of literature on customer engagement was conducted. As an outcome of the extensive literature review, a conceptual model was developed and related hypotheses were proposed (discussed in Chapter 3). To empirically test the proposed model, a self-administered questionnaire survey was conducted among the students of four selected universities of Delhi, India. The questionnaire was developed by adapting scale items from previously established scales. Reliability and validity of these scale items was assessed using SPSS 21.0 through Confirmatory Factor Analysis (CFA). To empirically examine these hypotheses, structural equation modeling was applied using AMOS 22.0. Structural equation modeling (SEM) tests a theoretically hypothesized model using a two-step procedure where the first step tests whether the identified set of observed variables can define the underlying constructs (or latent variables) and the second step tests the relation among the hypothesized latent variables based on various model fitness parameters.

## **1.6. OVERVIEW OF THE PRESENT RESEARCH**

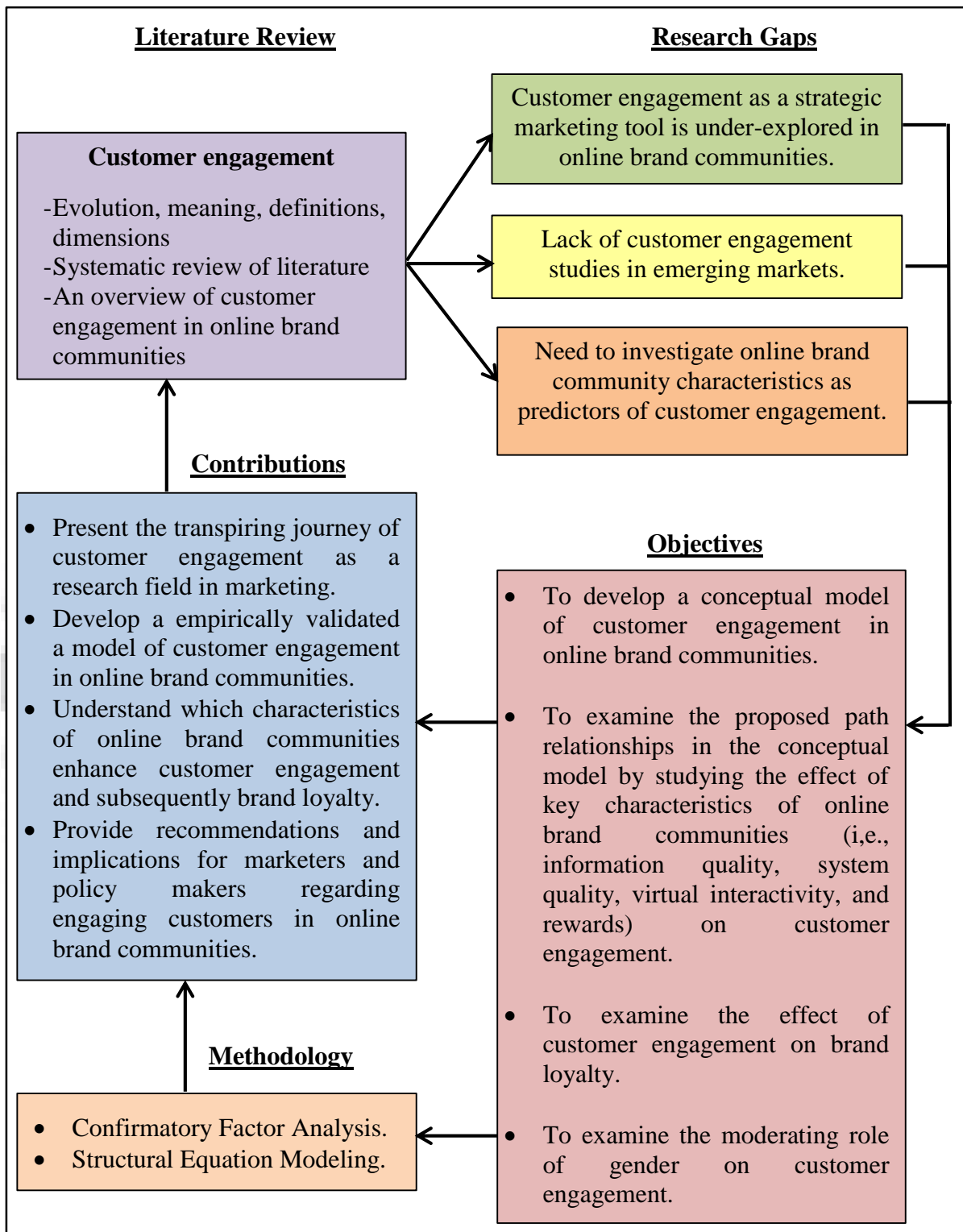
The present research started with an extensive review of customer engagement literature and a brief review of customer engagement in online brand communities that led to an in-depth understanding of existing studies and identification of various gaps. Identifying gaps from the literature facilitated problem formulation, development of conceptual framework, and identification of variables and relationships among variables. As an outcome of the literature review, the overall research framework for the present study was designed as illustrated in Figure 1.3 in this chapter.

To assess customer engagement in online brand communities, a research model has been proposed in this study. The proposed conceptual model considered the key characteristics of online brand communities viz. system quality, information quality, reward, and virtual interactivity as the predictors of customer engagement and suggested brand loyalty as an outcome of customer engagement. To empirically test the proposed model, a self-administered

questionnaire survey was conducted among the students of four selected universities of Delhi, India. The questionnaire was developed by adapting scale items from previously established scales. Apart from empirically validating the antecedents and consequences of customer engagement, the moderating role of gender on the proposed relationships was investigated.

The findings showed that each of the characteristics positively influences customer engagement, with system quality, information quality and virtual interactivity bearing the strongest influence. The results also showed that customer engagement has a significant positive influence on brand loyalty. The statistical analysis of this study further revealed that the impact of all the four characteristics of online brand communities on customer engagement is consistent across male and female members, signifying that gender gap in the online environment is declining. This study makes significant contribution to the existing body of knowledge on customer engagement by providing direction to both academics and practitioners towards engaging customers with online brand communities and eventually enhancing brand loyalty. The present study would help practitioners in overcoming various challenges in customer engagement through constructive decision making.

**Figure 1.3 Research framework**



## **1.7. DEFINITION OF KEY TERMS**

This section presents the definitions of the key terms used in this study so as to get a better understanding of the context and setting of the study.

### **1.7.1. Social Networking Sites**

According to Lenhart and Madden (2007, p. 1), a social network site is defined as “an online place where a user can create a profile and build a personal network that connects him or her to other users”.

### **1.7.2. Online Brand Communities**

Muniz and O’Guinn (2001, p. 423) defined brand communities as “a specialized, non-geographically bound community, based on a structured set of social relations among admirers of a brand.” It has also been defined as “an enduring, self-selected group of consumers, who accept and recognize bonds of membership with each other and the brand” (Veloutsou and Moutinho, 2009, p. 316).

### **1.7.3. System Quality**

System quality has been defined as “a measure of the extent to which the system is technically sound, error-free, easy to learn, user friendly, well documented, and flexible etc.” (Gorla et al., 2010, p. 219).

### **1.7.4. Information Quality**

Information quality has been defined as “a consumer’s perception of product and company information based on a set of judgment criteria that cover accuracy, relevance, helpfulness, up-to-datedness, and unbiased measures” (Ou and Sia, 2010, p. 918).

### **1.7.5. Reward**

In an online context, reward refers to “the degree of monetary or psychological appreciation for its proactive members” (Jang et al., 2008, p. 66); and reflects all the benefits that customers obtain through their relationship with the organization (Newman and Sheikh, 2012).

### **1.7.6. Virtual Interactivity**

Mollen and Wilson (2012, p. 921) define virtual interactivity as “the degree to which the users perceive that the interaction between the brand and themselves to be two-way, controllable, and



responsive to their actions”. Another definition of virtual interactivity is the one given by Steuer (1992) as “the extent to which users can participate in modifying the form and content of the mediated environment in real time” (p. 84).

### **1.7.7. Brand Loyalty**

Brand loyalty denotes a consumer’s favorable attitude toward a product/website/brand, along with repeat purchase behavior (Anderson and Srinivasan, 2003; Liu et al., 2012) and is defined as “a deeply held commitment to re-buy or re-patronize preferred product/services consistently in the future” (Oliver, 1999, p. 34).

### **1.7.8. Gender**

Gender in this study is viewed in terms of biological sex referring to males and females (Islam et al., 2017a; Kolyesnikova et al., 2009).

### **1.7.9. Customer Engagement**

Customer engagement is “a consumer’s positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions.” (Hollebeek et al., 2014, p. 154). It is the readiness of a customer to actively participate and interact with the focal object (e.g. brand/organization/community/website/ organizational activity), [which] varies in direction (positive/negative) and magnitude (high/low) depending upon the nature of a customer’s interaction with various physical and virtual touch points (Islam and Rahman, 2016b).

## **1.8. CHAPTER ORGANIZATION OF THE THESIS**

The research work undertaken in the present study has been covered in six chapters, including the present one. Figure 1.4 gives a schematic representation of all the chapters. A brief overview of every chapter is provided below:

### **Chapter One**

This chapter presents an introduction to the present research with the motivations behind undertaking this research. It also presents the research gaps and scope of the present research. In addition, this chapter also states the objectives research questions of the study; introduces



definitions of terms used in this study; and explains the methodology to be adopted. The chapter also provides a brief overview of the entire thesis and its organization.

## **Chapter Two**

This chapter presents an in-depth review of extant literature on customer engagement. Along with an overview of online brand communities, it discusses common characteristics of reviewed articles, theories and model used in prior studies, antecedents and consequences of customer engagement proposed in earlier studies. Further, gaps identified from existing body of literature are presented in this chapter.

## **Chapter Three**

This chapter describes a conceptual framework developed on the basis of literature review. Various hypotheses are proposed based on the existence of relationships among key constructs of this research in the literature.

## **Chapter Four**

This chapter discusses the research design and methodology adopted to achieve the objectives of the present research. In addition, it also presents the methodology used for designing the survey instrument, sampling, data collection and analyses applied for empirical testing of the proposed hypotheses.

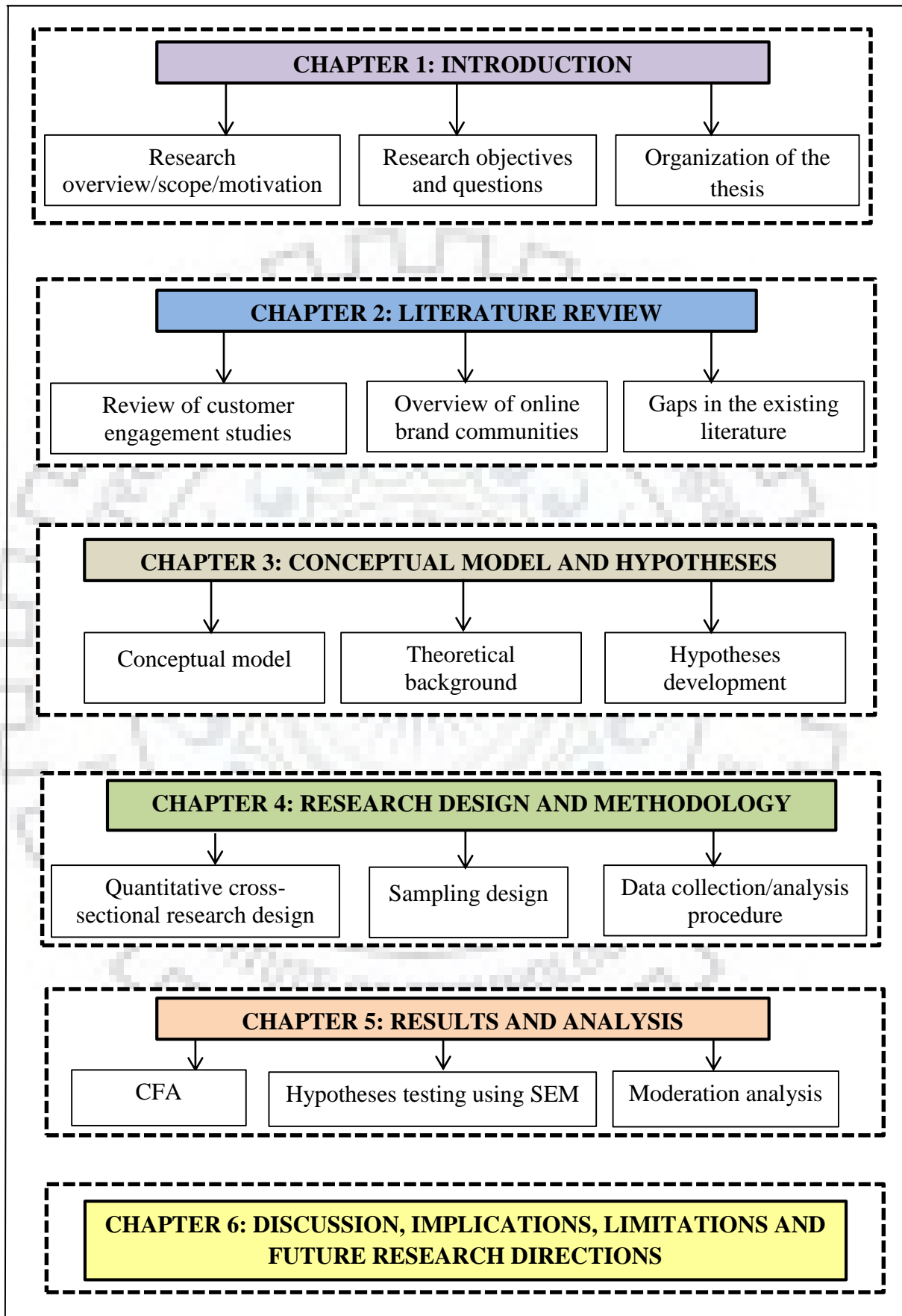
## **Chapter Five**

Chapter five illustrates the describes data analysis and testing of hypotheses for empirical testing of the proposed model based on the relationship between antecedent variables (information quality, system quality, virtual interactivity, and rewards), customer engagement in online brand communities, and its outcome variable (brand loyalty). Additionally, in this chapter, moderation analysis is also performed to understand the impact of gender on the proposed relationships.

## **Chapter Six**

This chapter provides the discussions about main findings. In addition, in this chapter implications (theoretical and managerial) for both theory and practice have been described in detail along with research limitations and future research directions.

Figure 1.4 Chapter organization



## **1.9. CONCLUSION**

In today's scenario of intense competition, companies have recognized the relevance of engaging customers in their online brand communities; academics and practitioners, therefore, suggest customer engagement as a strategic marketing tool to gain competitive advantage. In this research, the importance of customer engagement in the context of online brand communities has been highlighted. Thus, the present research is an attempt to investigate customer engagement in the context of online brand communities available on Facebook. This chapter provides a complete overview of the work undertaken in this thesis; it highlights the problem statement and motivations for conducting this study. Finally, the chapter presents the overall research framework and organization of the present thesis.



## **Chapter 2**

### **LITERATURE REVIEW**

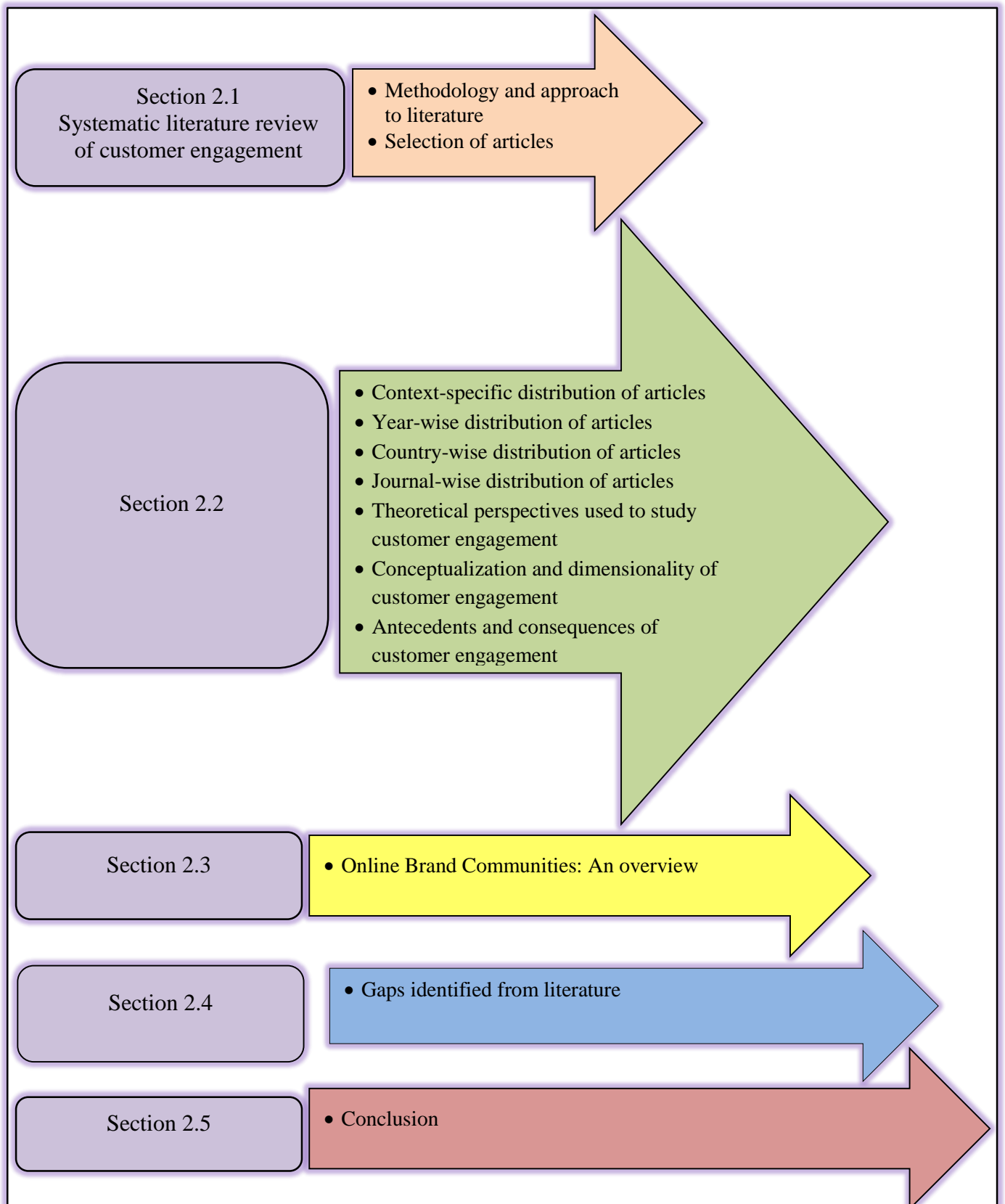
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This chapter provides a comprehensive review of customer engagement literature in the marketing discipline. A review of 66 articles on customer engagement spanning from 2005 to 2015 is presented in order to determine the current stand of customer engagement research and the direction which this research area is heading to. Past studies have been reviewed to find out various dimensions, conceptualizations, and antecedents and consequences of customer engagement. Further, the chapter provides a brief overview of online brand communities and an interaction between customer engagement and online brand communities. Through a detailed literature review, this chapter identifies research gaps in the customer engagement research that have not been thoroughly addressed in the past studies.

#### **2.1. SYSTEMATIC LITERATURE REVIEW OF CUSTOMER ENGAGEMENT STUDIES**

Considering the popularity of customer engagement concept among academicians and practitioners, this study reviewed customer engagement research spanning from the year 2005 to 2015 in the existing marketing literature in order to determine the present stand of customer engagement research and the direction which this research area is heading to. The need for this study is supported by Brodie et al. (2011) who mention “from a theoretical perspective further systematic, explicit scholarly inquiry addressing the CE concept is required” (p. 262). Systematic reviews “summarize in an explicit way what is known and not known about a specific practice related question” (Briner et al., 2009, p. 19). This systematic review provides an understanding of the current state of customer engagement research on a single platform through various classification schemes with respect to the distribution of published articles across different countries, journals, contexts and time periods; reports various conceptualizations, dimensions, antecedents and consequences of customer engagement proposed by previous studies; presents a set of theoretical perspectives through which customer engagement has been explored so far, and summarizes few important issues that future research should explore.

**Figure 2.1 Structure of Chapter 2**



### 2.1.1. Methodology and Approach to the Literature

The objective of this systematic review is twofold: first, to present the current state of customer engagement research; second, to expressly summarize few unexploited areas of customer engagement that future research should focus on. To achieve the mentioned objective, four dominant academic databases including Scopus, Emerald, EBSCOS and Science Direct were explored to identify articles on customer engagement.

### 2.1.2. Selection of Articles

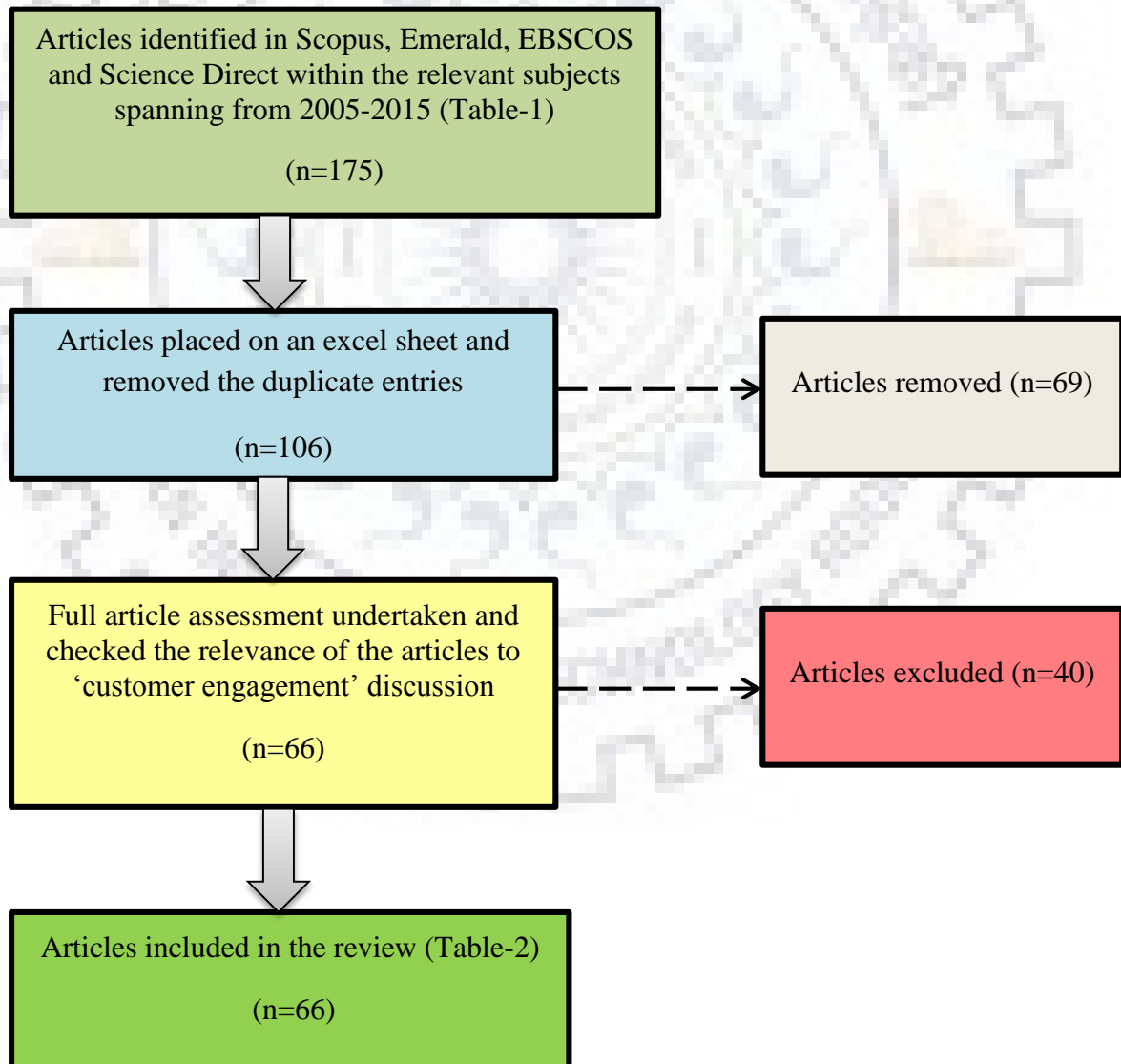
Articles were identified in the “article title, abstract, and keywords” section of the said databases using keywords as “customer engagement”; “consumer engagement”; “customer brand engagement”; “consumer brand engagement”; “customer engagement behavior”; “consumer engagement behavior”; and “brand community engagement.” To keep the search process specific to the objectives of this study, above keywords were used with the subject limits of “Business, Management and Accounting”; “Social Sciences”; and “Psychology.” The last search of articles was conducted in October 2015, and all the published articles till that time were included. As shown in Table 2.1, a total of 175 articles were identified through the selected search criteria, of which only 66 studies survived to be taken for final analysis.

**Table 2.1 Articles found in electronic databases and the articles taken for final analysis per time period**

Keyword	No. of articles found				No. of articles taken for final analysis			
	2005-2008	2009-2012	2013-2015	Total	2005-2008	2009-2012	2013-2015	Total
Customer engagement	7	26	55	<b>88</b>	2	11	25	<b>38</b>
Consumer engagement	6	21	42	<b>69</b>	-	3	12	<b>15</b>
Customer brand engagement	-	2	-	<b>2</b>	-	2	-	<b>2</b>
Consumer brand engagement	-	2	5	<b>7</b>	-	2	2	<b>4</b>
Customer engagement behavior	-	2	4	<b>6</b>	-	2	3	<b>5</b>
Consumer engagement behavior	-	1	-	<b>1</b>	-	1	-	<b>1</b>
Brand community engagement	-	1	1	<b>2</b>	-	-	1	<b>1</b>
<b>Total</b>	<b>13</b>	<b>55</b>	<b>107</b>	<b>175</b>	<b>2</b>	<b>21</b>	<b>43</b>	<b>66</b>

The identified 175 articles were placed on a single excel sheet and replicative articles were removed, leaving 106 articles for further analysis. Reports, master and doctoral dissertations, textbooks and conference papers were excluded (Ngai, 2005; Chan and Ngai, 2011). A detailed assessment of the full article (as recommended by Tranfield et al., 2003) was performed to ascertain the relevance of the articles to customer engagement. After this evaluation, 66 articles that had “customer engagement” or any of the selected keywords central to their discussion were chosen for the final analysis. The rest of the 40 articles had used “customer engagement” or any other selected keyword but were found to be irrelevant to the customer engagement discussion and were, therefore, not considered. An overview of the selection process is given in Figure 2.1.

**Figure 2.2 Flow diagram of article selection process**



## **2.2. ANALYSIS AND RESULTS**

All the 66 articles were divided into three approximately equal time periods (see Das, 2009). This division was done to identify the growth pattern of customer engagement studies over the last decade (see Fatma and Rahman, 2015) and aid the longitudinal exploration of the customer engagement literature (see Goyal et al., 2013):

- period I: 2005-2008 (four years);
- period II: 2009-2012 (four years); and
- period III: 2013-2015 (three years).

The time period I comprises of two foundational articles by Sawhney et al. (2005) and Carter (2008) that conferred customer engagement as a research area in the marketing discipline. The time period II saw the progress of majority of conceptual and qualitative studies on customer engagement literature. This phase led the strong conceptual basis for this emerging construct. Some radical pieces were written in this time period (e.g. Bowden, 2009; Van Van Doorn et al., 2010; Verhoef et al., 2010; Brodie et al., 2011; Hollebeek, 2011a, b; Vivek et al., 2012). As an outcome of the conceptual footing and the emphasis given to customer engagement research in the time period II, an outbreak of empirical exploration of this construct took place in the time period III. In this phase, scholarly attention was drawn toward empirical validation of the previously proposed theoretical relationships between customer engagement and other conceptually related constructs (Vivek et al., 2014; Dwivedi, 2015; Nadeem et al., 2015). This phase also represents the development of certain context-specific customer engagement scales (Hollebeek et al., 2014; So et al., 2014a; Vivek et al., 2014; Baldus et al., 2015) which further enhanced the empirical examination of customer engagement.

The next section of this chapter describes the context specific distribution, followed by year-wise, country-wise, journal-wise and orientation (empirical or conceptual) wise distribution of the 66 identified articles. The section then describes the conceptualizations, dimensions, antecedents and consequences of customer engagement proposed by previous studies.

### **2.2.1. Context-Specific Distribution of Articles**

The extant state of customer engagement research based on the context of the studies is presented in Table 2.2. The analysis of the final 66 articles revealed that customer engagement has been studied in four broad contexts; with majority of studies being conducted in the context of online platforms (25), followed by service-brand/firm context (17), general (multiple entities)



context (16) and brand/firm context (8). Most of the articles have concentrated on one engagement object at a time but few articles have also acknowledged multiple customer engagement objects (classified by this study as “General” in context). It was found that up to the year 2012, studies on customer engagement were mostly general in context; but afterwards, studies started focusing on specific contexts such as brands, online communities and services. This rise in the context-specific studies may be due to the attention given on the theoretical building of the concept and the stress on the need for context-specific studies by prior studies.



**Table 2.2 Context of customer engagement studies per time period**

Time period	Context			
	Brand/firm	Service-brand/industry	General (multiple entities)	Online platforms (websites, social networking sites, brand communities)
<b>2005-2008 (n= 2)</b>	-	-	Carter (2008) (n= 1)	Sawhney et al. (2005) (n= 1)
<b>2009-2012 (n= 21)</b>	Sprott et al. (2009); Hollebeek (2011a); Javornik and Mandelli (2012) (n= 3)	Bowden (2009); Bowden (2009a) (n= 2)	Bijmolt et al. (2010); Van Van Doorn et al. (2010); Gambetti and Graffigna (2010); Kumar et al. (2010); Roberts and Alpert (2010); Verhoef et al. (2010); Ashley et al. (2011); Bolton (2011); Brodie et al. (2011); Hollebeek (2011b); Gambetti et al. (2012); Sashi (2012); Vivek et al. (2012) (n= 13)	Calder et al. (2009); Mollen and Wilson (2010); Gummerus et al. (2012) (n= 3)
<b>2013-2015</b>	Hollebeek (2013); Franzak et al. (2014); Sarkar and Sreejesh (2014); Tsai and Men (2014); Dwivedi (2015); So et al. (2015)	Cambra-Fierro et al. (2013); Verleyee et al. (2013); Wei et al. (2013); Banytè et al. (2014); Cabiddu et al. (2014); Cambra-Fierro et al. (2014); Chathon et al. (2014); Jaakkola and Alexander (2014); Kaltcheva et al. (2014); So et al. (2014a); So et al. (2014b); Bowden et al. (2015); Cambra-Fierro et al. (2015); Hwang et al. (2015);	Breidbach et al. (2014); Vivek et al. (2014)	Brodie et al. (2013); Tsai and Men (2013); Wirtz et al. (2013); Ashley and Tuten (2014); Ángeles Oviedo-García et al. (2014); Bitter et al. (2014); Claffey and Brady (2014); De Vries and Carlson (2014); Dijkmans et al. (2014); Hollebeek and Chen (2014); Hollebeek et al. (2014); Verma (2014); Wallace et al. (2014); Baldus

		O'Brien et al. (2015)		et al. (2015); Cheung et al. (2015); Dessart et al. (2015); Hammedi et al. (2015); Harwood and Garry (2015); Nadeem et al. (2015); Verhagen et al. (2015)
<b>(n= 43)</b>	<b>(n= 6)</b>	<b>(n= 15)</b>	<b>(n= 2)</b>	<b>(n= 20)</b>
<b>Total= 66</b>	<b>9</b>	<b>17</b>	<b>16</b>	<b>24</b>

### 2.2.2. Year-Wise Distribution of Articles with Respect to the Study Orientation (Conceptual or Empirical):

Preceding 2005, the term customer engagement was used by very few articles, implying the relative newness of this concept (Brodie et al., 2011; Marbach et al., 2016). On the basis of the selection criteria of the articles (as mentioned in the methodology section above), the first published article was located in 2005 and was, therefore, taken as the starting year. As evident from Table 2.3, the research on customer engagement has gained a significant pace in the last six years (2010-2015).

Based on the study orientation (conceptual or empirical), it was found that the articles till 2012 were mostly conceptual in nature (12 out of 18); but after 2012, scholarly attention has shifted more toward the quantitative empirical exploration of the subject area. The reason could be the development of certain customer engagement scales (Hollebeek et al., 2014; So et al., 2014a; Vivek et al., 2014; Baldus et al., 2015) that intensified the empirical examination of the concept.

**Table 2.3 Orientation of customer engagement studies per time**

<b>Time period</b>	<b>Year</b>	<b>Study</b>	<b>Study type</b>
<b>2005-2008</b> (n= 2)	<b>2005 (1)</b>	Sawhney et al. (2005)	Conceptual
	<b>2008 (1)</b>	Carter (2008)	Empirical (Quantitative)
<b>2009-2012 (n= 21)</b>	<b>2009 (4)</b>	Bowden (2009)	Conceptual
		Bowden (2009a)	Empirical (Qualitative)
		Calder et al. (2009)	Empirical (Quantitative)
		Sprott et al. (2009)	Empirical (Quantitative)
	<b>2010 (7)</b>	Bijmolt et al. (2010)	Conceptual
		Van Doorn et al. (2010)	Conceptual
		Gambetti and Graffigna (2010)	Conceptual
		Kumar et al. (2010)	Conceptual
		Mollen and Wilson (2010)	Conceptual
		Roberts and Alpert (2010)	Conceptual
		Verhoef et al. (2010)	Conceptual
		<b>2011 (6)</b>	Ashley et al. (2011)
	Bolton (2011)		Conceptual
	Brodie et al. (2011)		Conceptual
	Gambetti et al. (2012)		Empirical (Qualitative)
	Hollebeek (2011a)		Conceptual
	Hollebeek (2011b)		Empirical (Qualitative)
	<b>2012 (4)</b>	Gummerus et al. (2012)	Empirical (Quantitative)
		Javornik and Mandelli (2012)	Empirical (Qualitative)
		Sashi (2012)	Conceptual
		Vivek et al. (2012)	Empirical (Qualitative)
<b>2013 (7)</b>	Brodie et al. (2013)	Empirical (Qualitative)	
	Cambra-Fierro et al. (2013)	Empirical (Quantitative)	
	Hollebeek (2013)	Empirical (Qualitative)	
	Tsai and Men (2013)	Empirical (Quantitative)	
	Verleyee et al. (2013)	Empirical (Quantitative)	
	Wei et al. (2013)	Empirical (Quantitative)	
	Wirtz et al. (2013)	Conceptual	
	<b>2014 (23)</b>	Ángeles Oviedo-García et al. (2014)	Conceptual
		Ashley and Tuten (2014)	Empirical (Qualitative)
		Banytè et al. (2014)	Empirical (Quantitative)

<b>2013-2015 (n= 43)</b>	2014	Bitter et al. (2014)	Empirical (Quantitative)	
	2014	Breidbach et al. (2014)	Conceptual	
	2014	Cabiddu et al. (2014)	Empirical (Qualitative)	
	2014	Cambra-Fierro et al. (2014)	Empirical (Quantitative)	
	2014	Chathon et al. (2014)	Empirical (Qualitative)	
	2014	Claffey and Brady (2014)	Empirical (Quantitative)	
	2014	De Vries and Carlson (2014)	Empirical (Quantitative)	
	2014	Dijkmans et al. (2014)	Empirical (Quantitative)	
	2014	Franzak et al. (2014)	Conceptual	
	2014	Hollebeek and Chen (2014)	Empirical (Qualitative)	
	2014	Hollebeek et al. (2014)	Empirical (Quantitative)	
	2014	Jaakkola and Alexander (2014)	Empirical (Qualitative)	
	2014	Kaltcheva et al. (2014)	Conceptual	
	2014	Sarkar and Sreejesh (2014)	Empirical (Quantitative)	
	2014	So et al. (2014a)	Empirical (Quantitative)	
	2014	So et al. (2014b)	Empirical (Quantitative)	
	2014	Tsai and Men (2014)	Empirical (Quantitative)	
	2014	Verma (2014)	Empirical (Qualitative)	
	2014	Vivek et al. (2014)	Empirical (Quantitative)	
	2014	Wallace et al. (2014)	Empirical (Quantitative)	
	<b>2015 (13)</b>	2015	Baldus et al. (2015)	Empirical (Quantitative)
		2015	Bowden et al. (2015)	Empirical(Qualitative)
		2015	Cambra-Fierro et al. (2015)	Empirical (Quantitative)
		2015	Cheung et al. (2015)	Empirical (Quantitative)
		2015	Dessart et al. (2015)	Empirical (Qualitative)
		2015	Dwivedi (2015)	Empirical (Quantitative)
		2015	Hammedi et al. (2015)	Empirical (Quantitative)
		2015	Harwood and Garry (2015)	Empirical(Qualitative)
		2015	Hwang et al. (2015)	Empirical (Quantitative)
2015		Nadeem et al. (2015)	Empirical (Quantitative)	
2015		O'Brien et al. (2015)	Empirical (Quantitative)	
2015		So et al. (2015)	Empirical (Quantitative)	
2015	Verhagen et al. (2015)	Empirical (Quantitative)		
<b>Total= 66</b>				

### 2.2.3. Country-Wise Distribution of Articles in Different Time Periods

To identify the intensity of research across the globe, a country-wise classification of literature is considered important (Fatma and Rahman, 2015; Goyal et al., 2013). To determine the country of study, respondent countries were reported for the studies that mentioned respondent locations and the first authors of the publication were reported for conceptual studies as well as the ones wherein respondent location was not specified (Fetscherin and Usunier, 2012; Mladen and Silva, 2001). This study found that the 66 identified articles on customer engagement have come from 18 countries with most of the articles from developed countries like the USA (16), Australia (10) and New Zealand (7) as shown in Table 2.4. In response to the growing significance of customer engagement, research in this domain has started extending across countries in the recent few years. But such studies in developing countries are still scanty.

**Table 2.4 Country wise distribution of articles**

Country	2005-2008	2009-2012	2013-2015	Total
Australia	-	3	7	10
Austria	-	-	1	1
Belgium	-	-	2	2
China	-	-	2	2
Finland	-	1	-	1
Hong Kong	-	-	1	1
India	-	-	3	3
Ireland	-	-	2	2
Italy	-	2	2	4
Korea	-	-	1	1
Lithuania	-	-	1	1
New Zealand	-	3	4	7
Singapore	-	-	1	1
Spain	-	-	4	4
Switzerland	-	1	-	1
The Netherlands	-	3	2	5
UK	-	1	3	4
USA	2	7	7	16
				<b>66</b>

#### **2.2.4 .Journal-wise distribution of articles in different time periods**

This classification was done to observe where customer engagement research is being published (Schibrowsky et al., 2007). Articles related to customer engagement were found to be published in 39 reputed peer-reviewed journals in different time periods (see Table 2.5). This number is encouraging for academicians concerned about identifying and selecting a channel for their customer engagement manuscripts. Among these reputed journals, the dominant outlet of customer engagement research has been the *Journal of Service Research* which has published eight articles and the *Journal of Product & Brand Management* which has published seven articles. The dominance was mainly due to the proliferation of special issues by these two academic journals devoted to customer engagement topics.





**Table 2.5 Journal wise distribution of articles**

<b>Journal</b>	<b>2005-2008</b>	<b>2009-2012</b>	<b>2013-2015</b>	<b>Total</b>
Annals of Tourism Research	-	-	Cabiddu et al. (2014)	1
Australasian Marketing Journal	-	-	Hollebeek (2013)	1
Computers in Human Behavior	-	-	Verhagen et al. (2015)	1
Electronic Commerce Research and Applications	-	-	Cheung et al. (2015)	1
Engineering Economics	-	-	Banytè et al. (2014)	1
Innovation: Management, Policy & Practice	-	-	Cambra-Fierro et al. (2013)	1
International Journal of Contemporary Hospitality Management	-	-	Hwang et al. (2015)	1
International Journal of Hospitality Management	-	-	Wei et al. (2013)	1
International Journal of Information Management	-	-	Nadeem et al. (2015)	1
International Journal of Market Research	-	Gambetti and Graffigna (2010); Gambetti et al. (2012)	-	2
International Journal of Networking and Virtual Organisations	-	-	Bitter et al. (2014)	1
Journal of Brand Management	-	-	De Vries and Carlson (2014)	1
Journal of Business Research	-	Mollen, and Wilson (2010); Ashley et al. (2011)	Baldus et al. (2015); Brodie et al. (2013);	4
Journal of Customer Behaviour	-	-	Claffey and Brady (2014)	1

Journal of Database Marketing & Customer Strategy Management	-	Javornik and Mandelli (2012)	-	1
Journal of Hospitality Marketing & Management	-	Bowden (2009b)	-	1
Journal of Hospitality & Tourism Research	-	-	So et al. (2014a)	1
Journal of Interactive Advertising	-	-	Tsai and Men (2013)	1
Journal of Interactive marketing	Sawhney et al. (2005)	Calder et al. (2009)	Hollebeek et al. (2014)	3
Journal of Internet Commerce	-	-	Verma (2014)	1
Journal of Marketing Communications	-	-	Tsai and Men (2014)	1
Journal of Marketing Management	-	Hollebeek (2011a)	Bowden et al. (2015)	2
Journal of Marketing Research	-	Sprott et al. (2009)	-	1
Journal of Marketing Theory and Practice	-	Bowden (2009a); Vivek et al. (2012)	Vivek et al. (2014)	3
Journal of Product & Brand Management	-	Roberts and Alpert (2010)	Dessart et al. (2015); Franzak et al. (2014); Hollebeek and Chen (2014); Kaltcheva et al. (2014); Sarkar and Sreejesh (2014); Wallace et al. (2014)	7
Journal of Research in Interactive Marketing	-	-	Ángeles Oviedo-García et al. (2014)	1
Journal of Retailing and Consumer Services	-	-	Dwivedi (2015)	1

Journal of Service Management	-	-	Hammedi et al. (2015); So et al. (2015); Wirtz et al. (2013)	3
Journal of Services Marketing	-	-	Harwood and Garry (2015); O'Brien et al. (2015)	2
Journal of Service Research	-	Bijmolt et al. (2010); Bolton (2011); Brodie et al. (2011); Kumar et al. (2010); Van Doorn et al. (2010); Verhoef et al. (2010)	Jaakkola and Alexander (2014); Verleyee et al. (2013)	8
Journal of Strategic Marketing	Carter (2008)	Hollebeek (2011b)	-	2
Journal of Travel Research	-	-	So et al. (2014b)	1
Management Decision	-	Sashi (2012)	-	1
Management Research Review	-	Gummerus et al. (2012)	-	1
Managing Service Quality	-	-	Breidbach et al. (2014)	1
Psychology & Marketing	-	-	Ashley and Tuten (2014)	1
Revista Española de Investigación de Marketing ESIC	-	-	Cambra-Fierro et al. (2014)	1
Service Business	-	-	Cambra-Fierro et al. (2015)	1
Tourism Management	-	-	Chathon et al. (2014); Dijkmans et al. (2014)	2
				<b>66</b>

### **2.2.5. Theoretical perspectives used to explore customer engagement**

Various theories have been used in the extant literature to study customer engagement. This review found that 28 studies were built using any of the 13 theoretical perspectives that are presented in Table 2.6. Rest of the 38 studies did not mention any specific theory adopted to study customer engagement. The “Relationship Marketing Theory” and the “Service-dominant (S-D) logic” have been broadly utilized as the theoretical prism to explore customer engagement; such as in the works of Brodie et al. (2011, 2013), Hollebeek (2011b), Breidbach et al. (2014) and Vivek et al. (2014). Under relationship marketing theory and S-D alike, customers are not assumed to be mere passive receivers of brand-related clues rather they are believed to be proactive contributors to brand interactions (Fournier, 1998; Vargo and Lusch, 2008). Both these theories implicitly or explicitly presume customer engagement as highly interactive in nature (Hollebeek, 2011b).

Another group of social behavior theories, namely, social exchange theory, social penetration theory and social practice theory, which relate social ties and social interaction, have also been utilized to study customer engagement (Hollebeek, 2011b; Verleye et al., 2013; Hwang et al., 2015; Bitter et al., 2014). Under these theories, customers are presumed to recompense positive thoughts and behaviors toward an object (brand) upon earning certain initial benefits from the brand interaction and exchange; which also conforms to the reciprocity theory used by Cambra-Fierro et al. (2013, 2015). One more set of theories used by scholars to explore customer engagement is the personal behavior theories such as the affordance theory (e.g. Cabiddu et al., 2014), organizational psychology (e.g. Dwivedi, 2015), stimulus-organism-response model (e.g. Mollen and Wilson, 2010; Claffey and Brady, 2014) and theory of planned behavior (e.g. Bitter et al., 2014). This group of adopted theories regards engagement as a trait and tries to illustrate customer behavior (from intention to action) at the individual/personal level. Other than the leading theories of relationship marketing and S-D, recent studies have started exploring customer engagement through different theoretical lenses such as social and personal behavior theories.

**Table 2.6 Theoretical perspectives through which customer engagement has been studied**

<b>Theoretical background</b>	<b>Study</b>	<b>No. of studies</b>
Organizational psychology	Dwivedi (2015)	1
Reciprocity theory	Cambra-Fierro et al. (2013); Cambra-Fierro et al. (2015)	1
Regulatory engagement theory	Hollebeek and Chen (2014)	1
Relationship marketing theory	Bowden (2009a); Brodie et al. (2011); Brodie et al. (2013); Cambra-Fierro et al. (2013); Cambra-Fierro et al. (2015); Hollebeek (2011b); Vivek et al. (2012); Vivek et al. (2014)	8
Resource exchange theory	Verleyee et al. (2013)	1
Service-dominant (S-D) logic	Brodie et al. (2011); Brodie et al. (2013); Breidbach et al. (2014); Chathon et al. (2014); Hollebeek (2011b); Vivek et al. (2014)	6
Social exchange theory	Hollebeek (2011b); Verleyee et al. (2013)	2
Social penetration theory	Hwang et al. (2015)	1
Social practice theory	Bitter et al. (2014)	1
Stimulus-Organism-Response model	Claffey and Brady (2014); Mollen and Wilson (2010)	2
The affordance theory	Cabiddu et al. (2014)	1
Theory of planned behavior	Bitter et al. (2014)	1
Uses and gratifications theory	De Vries and Carlson (2014); Verhagen et al. (2015)	2
<b>Total</b>		<b>28</b>

### **2.2.6. Conceptualization and dimensionality of customer engagement in the marketing discipline**

Through a summarized systematic review of customer engagement literature, this study found that there are many contrasting conceptualizations of customer engagement and scholars are yet to find a conforming conceptualization that is congruous across contexts (Dessart et al., 2015; O'Brien et al., 2015). Table 2.7 presents the studies that have conceptualized customer engagement and have demonstrated various dimensions of the construct. As reflected in Table 2.7, some authors consider customer engagement as a psychological process (Bowden, 2009; Brodie et al., 2011) while others see it as a behavior (Ángeles Oviedo-García et al., 2014;

Jaakkola and Alexander, 2014). A variation in the dimensionality of customer engagement is also reflected by the review. The identified conceptualizations within the marketing discipline reveal that some studies have described customer engagement as unidimensional (Ángeles Oviedo-García et al., 2014; Van Doorn et al., 2010; Jaakkola and Alexander, 2014; Sprott et al., 2009) but majority of the definitions have considered customer engagement as a multi-dimensional concept comprising of cognitive, emotional and behavioral dimensions (Bowden, 2009; Brodie et al., 2013; Dwivedi, 2015; Hollebeek, 2011b), whereas social dimension has also been added by a few studies (Baldus et al., 2015; Gambetti et al., 2012; So et al., 2014a).

As an outcome of the analysis of existing conceptualizations, this study views customer engagement as the readiness of a customer to actively participate and interact with the focal object (e.g. brand/organization/community/website/ organizational activity), [which] varies in direction (positive/negative) and magnitude (high/low) depending upon the nature of a customer's interaction with various touch points (physical/virtual). This conceptualization adheres to the multi-dimensional manifestation of customer engagement comprising of cognitive (experience), emotional (feeling), behavioral (participation) and social (interaction and sharing of one's experiences and content) dimensions (Gambetti et al., 2012; Vivek et al., 2012). The cognitive and affective dimensions imply that customer engagement is state of mind (cognition) and is based on feelings (emotion) (Vivek et al., 2012). The behavioral and social dimensions signify the proactive and interactive nature of customer engagement captured by intense participation and sharing of values and content in customer-firm related social exchanges (Gambetti et al., 2012; Vivek et al., 2014).

**Table 2.7 An overview of conceptualization and dimensionality of customer engagement in the marketing discipline**

<b>Authors</b>	<b>Definition</b>	<b>Cognitive</b>	<b>Emotional</b>	<b>Behavioral</b>	<b>Social</b>
Bowden (2009a)	“psychological process that models the underlying mechanisms by which customer loyalty forms for new customers of a service brand as well as the mechanisms by which loyalty may be maintained for repeat purchase customers of a service brand.” (p.65)	✓	✓	✓	
Sprott et al. (2009)	“an individual difference representing consumers’ propensity to include important brands as part of how they view themselves.” (p. 92)		✓		
Calder et al. (2009)	“a second-order construct that is manifested in various first-order “experience” constructs.” where experience is defined as “a consumer's beliefs about how a site fits into his/her life.” (p. 322)	✓	✓	✓	
Van Doorn et al. (2010)	“the customers’ behavioral manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers.” (p. 254)			✓	
Mollen and Wilson (2010)	“a cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value. It is characterized by the dimensions of dynamic and sustained cognitive processing and the satisfying of instrumental value (utility and relevance) and	✓	✓		



	experiential value (emotional congruence with the narrative schema encountered in computer-mediated entities.”(p. 923)				
Hollebeek (2011a)	“the level of an individual customer’s motivational, brand-related and context-dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activity in direct brand interactions” (p.790)	✓	✓	✓	
Hollebeek (2011b)	“the level of customer’s cognitive, emotional and behavioral investment in specific brand interactions” (p. 565)	✓	✓	✓	
Brodie et al. (2011)	“a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g., a brand) in focal service relationships.” (p. 260)	✓	✓	✓	
Gambetti et al. (2012)	“dynamic and process-based concept evolving over time in intensity on the basis of the brand's capability of increasingly intercepting consumers' desires and expectations using all possible physical and virtual touch-points between brand and consumers.” (p. 680)	✓	✓	✓	✓
Vivek et al. (2012)	“the intensity of an individual’s participation in and connection with an organization’s offerings and/or organizational activities, which either the customer or the organization initiate.” (p. 133)	✓	✓	✓	✓
Brodie et al.(2013)	“a multidimensional concept comprising cognitive, emotional, and/ or behavioral	✓	✓	✓	

	dimensions, and plays a central role in the process of relational exchange where other relational concepts are engagement antecedents and/or consequences in iterative engagement processes within the brand community.” (p. 3)”				
Wirtz et al. (2013)	“as an identification with the OBC that results in interactive participation in the OBC” (p. 230)	✓		✓	
Vivek et al. (2014)	“CE goes beyond purchase and is the level of the customer’s (or potential customer’s) interactions and connections with the brand or firm’s offerings or activities, often involving others in the social network created around the brand/offering/activity.” (p. 406)	✓	✓	✓	✓
So et al. (2014a)	“a customers’ personal connection to a brand as manifested in cognitive, affective, and behavioral actions outside of the purchase situation.” (p. 310)	✓	✓	✓	✓
Dijkmans et al. (2014)	“consumer’s familiarity with a company’s social media activities (i.e., cognition) and the online following of these activities (i.e., behavior).” (p. 59)	✓		✓	
Hollebeek et al. (2014)	“a consumer’s positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions.” (p. 154)	✓	✓	✓	
Ángeles Oviedo-	“the manifestation of commitment (through			✓	

García et al. (2014)	the intensity of interactions and their implications) toward the offers and activities of a brand, product or firm (configurations of value), regardless of whether it is initiated by the individual or the firm.” (p. 333)				
Jaakkola and Alexander (2014)	“Behaviors through which customers make voluntary resource contributions that have a brand or firm focus but go beyond what is fundamental to transactions, occur in interactions between the focal object and/or other actors, and result from motivational drivers.” (p.2)			✓	
Dwivedi (2015)	“consumers’ positive, ful-filling, brand-use-related state of mind that is characterized by vigor, dedication and absorption.” (p. 101)	✓	✓	✓	
Baldus et al. (2015)	“the compelling, intrinsic motivations to continue interacting with an online brand community” (p.979)	✓	✓	✓	✓

### **2.2.7. Antecedents and Consequences of Customer Engagement**

After an in-depth scrutiny of the 66 articles this study identified various constructs that have been taken either as antecedents and/or consequences of customer engagement by the existing studies. As shown in Appendix I, elaborating the classification of Van Doorn et al. (2010), all the constructs have been grouped as customer-focused, firm-focused and other (context-based) antecedents and/or consequences.

The customer-focused factors reflect the customers' attitudinal (e.g. customer trust, satisfaction and involvement, etc.) and/or perceptual (e.g. perceived cost, perceived benefits, relationship quality and many more) variables depending upon customers' affective states; their goals, traits and resources and are primarily consequential for the customers (Van Doorn et al., 2010); whereas firm-focused factors reflect the variables that are more in firms' control (e.g. brand characteristics, brand advertising, service quality and improved work-environment, etc.) and have a direct effect on the firm operations and performance (e.g. advertising effectiveness, higher sales and idea generation, etc.). Other (context-based) variables affecting customer engagement comprise of factors that firm or customers have no control upon. They arise generally from competition or other events (e.g. economic, political and technological).

The classified constructs can affect customer engagement directly or indirectly. Although these factors are identified and listed independently, they are not mutually exclusive; rather they may affect customer engagement separately or may interact with each other and affect customer engagement jointly (Van Doorn et al., 2010). Some factors such as trust, satisfaction, brand love, etc. have been proposed as antecedents (Bowden, 2009; Van Doorn et al., 2010; Cambra-Fierro et al., 2014; Islam and Rahman, 2016) as well as consequences of customer engagement (Brodie et al., 2011, 2013; Wallace et al., 2014; Islam and Rahman, 2016a). Some factors proposed as the outcome of customer engagement can also form a feedback loop by subsequently influencing customer engagement (Van Doorn et al., 2010; Vivek et al., 2014), thereby, warranting further conceptual and empirical exploration.

### **2.3. ONLINE BRAND COMMUNITIES: AN OVERVIEW**

The concept of 'online brand community' represents "a social aggregation of brand users and their relationships to the brand" (McAlexander et al., 2002, p. 39). It has been defined as "an enduring, self-selected group of consumers, who accept and recognize bonds of membership with each other and the brand" (Veloutsou and Moutinho, 2009, p. 316). The online communities

generally have a consumption activity or a brand as focal point. When a consumption activity is the focal point, the online community is termed as consumption community, signifying a group of individuals “held together through shared emotions, styles of life, new moral beliefs, senses of injustice and consumption practices” (Cova, 1997, p. 301), while when a brand is the focal point, the online community is labeled as brand community. Whether consumer or organization-initiated (Cova, 1997), online brand community hallmarks include lacking geographical barriers, a focus on a particular, central brand, and online brand community members’ strong brand commitment and shared community values (Muniz and O’Guinn, 2001).

The ever increasing usage of online brand communities during the past decade has made a speedy and convenient communication possible among internet users. In the modern era of information technology, online brand communities are created by companies on their web portals or established by customers as forums where customers could consume content passively and companies could keep a check on that content, filter and use that for serving customers better. This interplay of content on such forums makes it important marketers to educate and enable customers to co-create value and subsequently serve as a crucial means of service innovation (Bagozzi and Dholakia, 2002; (Brodie et al., 2013; Ramaswamy, 2009). As one of the important aspects of online brands communities is their dependence on member-generated content; the key challenge for any online brand community provider is to engage members so as to create a thriving platform wherein every member can perform as a creator of content (Kamboj and Rahman, 2016). Therefore, for the sustainability of online brand communities, it becomes imperative to know what engages members on such platforms. Besides, online brand community members share a specific brand-related interest that produces affiliation, creates a bond (De Valck et al., 2009), and generates perceived empowerment (Cova and Pace, 2006). These qualities, along with enhanced perceived credibility of (other) customer and/or peer evaluations, render online brand communities as a powerful engagement platform facilitating customer-to-customer interactions, knowledge sharing, and innovation (Breidbach et al., 2014; Sawhney et al., 2005; Füller et al., 2006). For these reasons, customer engagement with online brand communities represents an important scholarly and practical pursuit.

Since 2004, online brand communities have grown exponentially, with almost 50 percent of the top 100 global brands having established online brand communities today (Manchanda et al., 2015), including Apple, BMW, and Louis Vuitton, to name a few. The online brand

communities provide social platforms for customers to meet and share their passion for, and experiences with, focal (e.g. their preferred) brands (Trusov et al., 2009; Cheung and Lee, 2012). With their unprecedented communicative and interactive capabilities, online brand communities warrant organizations to enhance brand awareness (Barreda et al., 2015), magnify trust (Nadeem et al., 2015), generate positive word of mouth (Wang et al., 2016), heighten customer brand loyalty (Zheng et al., 2015), and achieve competitive advantages while marketing their offerings (Jang et al., 2008). Thus, consumers' ability to interact with online brand communities in real-time establishes a key basis for the development of customer engagement with these platforms (Zhang et al., 2017).

The last decade has seen a thriving research interest with respect to online brand communities (Habibi et al., 2014; Islam and Rahman, 2016a; Zhang and Luo, 2016). The existing research in this domain has either focused on the brand related outcomes of participation in an online brand community or on the interactions of consumers and their behavior in the online environment they operate in. The role of online brand communities in engaging customers, developing and strengthening customer relationship has also been of significant academic interest (Dessart et al., 2015; Manchanda et al., 2015). Regardless of the extensive adoption of online brand communities and the organizational quest for engaging customers therein, scanty literature is available regarding what motivates customers to continuously interact on these communities (Baldus et al., 2015; Brodie et al., 2013).

#### **2.4. GAPS IDENTIFIED FROM LITERATURE**

By providing the distribution scheme of customer engagement articles based on different criteria, this study provides an understanding of the current scenario of customer engagement research in the marketing discipline and highlights the avenues to move the field forward. This review revealed various shortcomings in the existing literature on customer engagement that future research should focus on. Some of the major gaps that demand a scholarly pursuit are discussed below:

1. *Further investigation and empirical validation of causal relationships between customer engagement and other related constructs.*

Marketers need to view their customers holistically, rather than viewing them in a fragmented way through different media channels (Bolton, 2011). Marketers are investing in finding out what factors actually drive customer engagement (Bolton, 2011;



Verhoef et al., 2010). Therefore, they are seeking conceptual and empirical models establishing relationship between customer engagement and other related constructs with respect to the conceivably different states of engagement in online and offline environments (Bolton, 2011; Brodie et al., 2011). Although, researchers have proposed numerous factors that may act as antecedents and/or consequences of customer engagement (as shown in Table VII), but most of these factors have only been proposed conceptually. Therefore, a need exists to develop and test (empirical) models that examine the relationship between consumer engagement and relevant other concepts such as customer satisfaction, brand loyalty, and brand experience etc. within the nomological network (Brodie et al., 2011; Hollebeek, 2011a; Jaakkola and Alexander, 2014; MSI 2016; O'Brien et al., 2015) for further progress of this area.

2. *Extending customer engagement research to developing economies.*

Customer engagement studies have largely been conducted in the developed countries like the USA (16), Australia (10) and New Zealand (7) as shown in Table IV. In response to the growing significance of customer engagement, research in this domain has started extending across countries in the recent few years. But, there is a dearth of studies on this emerging concept in the developing countries like India. Out of the 66 studies, there are only 3 studies on customer engagement in Indian context. The developing economies like India are representing the most rapidly expanding markets with huge business opportunities for multinational companies and, therefore, are the most lucrative growth markets for businesses (Fatma et al., 2016; Visser, 2007). Henceforth, it is important to conduct customer engagement studies incorporating an Indian sample.

3. *Investigating online brand community characteristics as predictors of customer engagement.*

The urge for customer engagement research in online brand communities is extensively conceded in the marketing literature (Brodie et al., 2013; Hollebeek et al., 2014; Dessart et al., 2015). Regardless of the extensive adoption of online brand communities and the organizational quest for engaging customers therein, scanty literature is available regarding which online brand community characteristics motivate customers to continuously interact on these communities (Brodie et al., 2013; Baldus et al., 2015). Therefore, there is a need to examine the impact of key brand community characteristics



on customer engagement (e.g., Brodie et al., 2013; De Valck et al., 2009) because these characteristics reflect a customer's overall impression of a brand community. A few studies have illustrated online brand community characteristics and their impact on satisfaction, commitment, and brand awareness (Barreda et al., 2015; Jang et al., 2008). However, studies exploring brand community characteristics and the paths through which these characteristics cause customer engagement are rare (Kang et al., 2016).

4. *Analyzing the effects of gender differences on customer engagement in online brand communities*

In online brand communities, consumer behavior is likely to differ across genders (Banytè et al., 2014; Ruane and Wallace, 2013). Scant research has analyzed the role of potential gender effects on ensuing customer engagement; thus necessitating the undertaking of further research in this area (Cambra-Fierro et al., 2015; Hammedi et al., 2015).

5. *Need for longitudinal research to further understand customer engagement*

Most of the studies that have explored customer engagement empirically are based on cross-sectional research (e.g. Bowden, 2009a; Ashley et al., 2011; Gummerus et al., 2012; Brodie et al., 2013; Cabiddu et al., 2014; Cambra-Fierro et al., 2015), reflecting only a snapshot of a customer's engagement with the focal object (Hollebeek, 2011b). Customer engagement as a process evolves and intensifies over time (Bowden, 2009; Gambetti et al., 2012). Therefore, it is suggested to conduct longitudinal research to provide better insights regarding how customers engage with a focal object over time (Bowden, 2009b; Hollebeek, 2011b, 2014; Dwivedi, 2015). Longitudinal studies could offer appropriate insights into engagement processes in different contexts (both online as well as offline).

6. *Investigation of the role of employees in engaging customers*

Customer-employee interaction occurs at almost every touch-point (Sirianni et al., 2013). Organizations can engage customers more effectively if they have a committed workforce who can encourage repeat interactions. To the author's surprise, no study was found regarding the employee engagement-customer engagement intercept. Therefore, it is imperative to study the role of employees in leveraging customer engagement (Gambetti and Graffigna, 2010; Brodie et al., 2013). Addressing this gap would help

organizations frame strategies to ensure positive (customer/employee) experience that will further drive customer engagement. In the hyper-connected world, prioritizing value co-creation is crucial. It is imperative that employees be equipped with skills to interact with and engage multiple stakeholders.

7. *Exploring the negative effects of customer engagement*

Higgins (2006) argues “to be engaged is to be involved, occupied and interested in something” (p. 442), which may not only be positive but may also be potentially negative in form (Vivek et al., 2014; Hollebeek and Chen, 2014). While several studies have presented diverse factors that drive customer engagement and the outcomes organizations can gain by strategically implementing customer engagement, most of the studies that are identified in this review have predominantly emphasized on the positive expressions of customer engagement whereas negative forms of customer engagement have remained unexplored. Future research may focus on studying negative customer engagement so as to explore some of the damaging effects of engagement (Vivek et al., 2014; Dessart et al., 2015).

8. *Examining whether propensity of customer engagement differs across different products and services*

Customer engagement has been studied in a limited set of services such as hospitality (Bowden, 2009), tourism (So et al., 2014a, b), telecom (Cambra-Fierro et al., 2013) and healthcare (Banytè et al., 2014), thereby, leaving a large number of service contexts unexplored. Besides, there are limited studies that have investigated if the intensity of customer engagement varies across service contexts. Therefore, customer engagement needs to be investigated across different service contexts to check if any variation occurs and if so; the factors that cause the variation need to be identified (Brodie et al., 2011; Hollebeek, 2011a; Bowden et al., 2015). As the subject of customer engagement is still developing, its scrutiny across different product categories (Franzak et al., 2014; Hollebeek and Chen, 2014) is also an interesting research area that needs to be focused on.

Of the above discussed eight research gaps, this study focusses on addressing the first four identified gaps which is also depicted in Figure 1.2 of Chapter 1.

## **2.5. CONCLUSION**

This chapter has provided an overview of extant customer engagement literature and has shed light on the interplay between customer engagement and online brand communities. Based on a detailed review of articles on customer engagement, an understanding of the current state of customer engagement research through various categories such as the distribution of published articles across different countries, journals, and contexts and time periods has been provided. This chapter also presents various conceptualizations, dimensions, antecedents and consequences of customer engagement proposed by previous studies; highlights a set of theoretical perspectives through which customer engagement has been explored so far.

Drawn from the reviewed literature, a few important gaps existing in the extant body of customer engagement literature have been presented. These gaps served as a base in formulating the objectives and research questions of the present research. The objective of this study is to provide a meaningful understanding of customer engagement, propose and empirically validate a relationship model that highlights some important predictors and outcomes of customer engagement in online brand communities. This study further intends to analyze whether different genders (male and female) influence the proposed relationships. The next chapter presents the conceptual framework and hypothesis development.

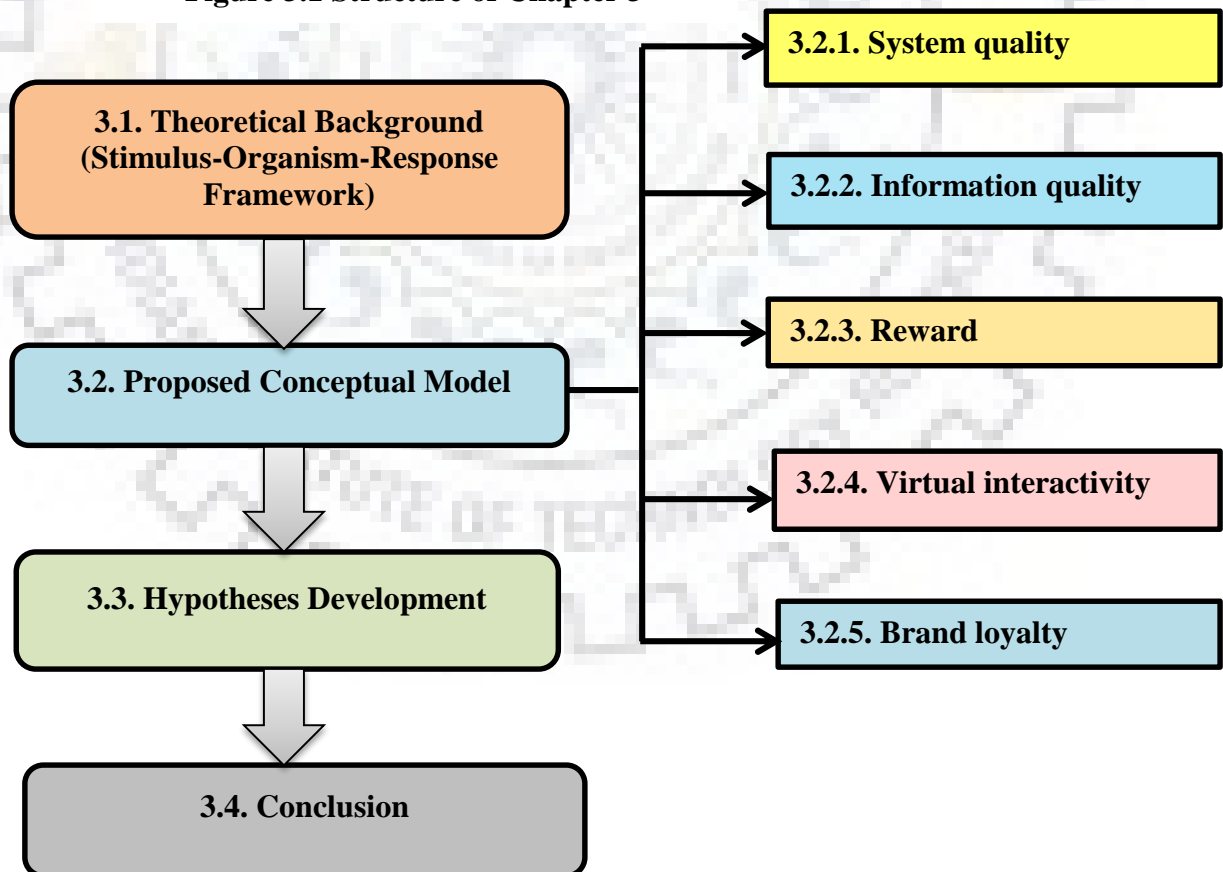
## Chapter 3

### CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

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It is evident from the literature review (Chapter 2) that there is a need to develop, investigate and empirically validate the causal relationships between customer engagement and other related constructs. It is also clear from the literature review that research is required to examine brand community characteristics and their impact on customer engagement because these characteristics reflect a customer's overall impression of a brand community. Considering the literature review and gaps identified, this chapter develops and proposes a conceptual model that consists of four key characteristics of online brand communities and explains the relationship between the key characteristics of online brand communities, customer engagement, and brand loyalty. The conceptual model and hypotheses are discussed in the subsequent sections of this chapter. The structure of the present chapter is depicted in Figure 3.1

**Figure 3.1 Structure of Chapter 3**



### 3.1. THE STIMULUS-ORGANISM-RESPONSE FRAMEWORK AS THE THEORETICAL BACKGROUND

The Stimulus-Organism-Response (S-O-R) framework (Mehrabian and Russell, 1974) modified by Jacoby (2002) is employed as a theoretical base to support an integrative model proposed by the current study. The S-O-R framework proposes that certain features of an environment as stimulus (S) incite the cognitive and emotional state of an individual (O), which in turn drives some behavioral responses (R) (Donovan and Rositer, 1982). The S-O-R framework has been extended to computer experience (Eroglu et al., 2003), advertising (Olney et al., 1991), website experience (Mollen and Wilson, 2010), and many other areas of consumer behavior (Rose et al., 2012; Reitz, 2012). Of importance to the current study, is the solicitation of S-O-R framework within the online brand communities' domain. In the context of online brand communities, *stimulus* refers to the design/features/characteristics of an online brand community with which members interact (Eroglu et al., 2003). The *organism* relates to the internal processes intervening between the inputs (stimulus) and the members' final *responses*, which are experiences, evaluations, and perceptions (Jiang et al., 2010). The use of S-O-R framework as a theoretical background is suitable for this study because this framework has been employed widely in earlier studies on online consumer behavior (Eroglu et al., 2003; Parboteeah et al., 2009; Zhang et al., 2014). Animesh et al. (2011) also applied the S-O-R framework to study the effect of technological features of virtual worlds on consumers' virtual experiences and behavior. These studies support the relevance of the S-O-R framework in determining an individual's behavioral responses to environmental stimuli.

The S-O-R framework considers three elements viz. stimulus, organism, and response. The *stimulus* element is "the influence that arouses the individual" (Eroglu et al., 2001, p. 179). In the virtual environment, stimulus is the infrastructure of an online brand community and the set of its characteristics that influence the customers' internal state (Mollen and Wilson, 2010). This research considers the characteristics (system quality, information quality, reward, and virtual interactivity) of an online brand community to be the stimuli because individuals interact in an online brand community via these enabled characteristics and shape their evaluations of these enabled characteristics (Parboteeah et al., 2009). Therefore, these characteristics reflect both objective and subjective properties of an online brand community as perceived by the customers (Zhang et al., 2014). Since these characteristics capture different aspects of customers'

interactions with an online brand community that comprises technology medium and people, this study proposes that these characteristics exert significant effect on customer engagement with online brand communities.

The *organism* element of the S-O-R framework is the cognitive and affective intermediary state of the customers and it manifests the processes that intercede between the stimuli and customers' responses (Loureiro and Ribeiro, 2011). Cognitive state represents customers' mental processes and comprises of "everything that goes in the consumers' minds concerning the acquisition, processing, retention, and retrieval of information" (Eroglu et al., 2001, p. 181). Affective state reflects the emotions like arousal and pleasure displayed by customers following the environmental stimuli. Once exposed to the stimuli, customers process the stimuli into information meaningful and helpful to them in making a decision (Loureiro and Ribeiro, 2011). Following Hollebeek et al. (2014), this research conceives of consumer engagement as a reflective second-order construct comprising cognitive processing, affection, and activation, which correspond to engagement's tripartite (cognitive, emotional, behavioral) dimensionality (Calder et al., 2009; Sprott et al., 2009; Baldus et al., 2015). Since cognition and affection are amongst the key dimensions of customer engagement, therefore, this study posits that customers' engagement (an organism state) with the online brand communities will be influenced by the effect environmental cues (Online brand community characteristics) have on the customers' interceding cognitive and affective states.

The *response* element of the S-O-R framework is the outcome in the form of customers' approach or avoidance behaviors (Donovan and Rositer, 1982). Approach behaviors include the positive responses that are shown by the customers on specific settings in the form of purchasing and positive communications etc. whereas avoidance behaviors reflect the opposite responses such as negative communications and no intentions to purchase/stay etc. (Bitner, 1992; Eroglu et al., 2001). In an online brand community, an individual is exposed to various experiences and social recommendations, which trigger his/her attitude towards the brand community. As a response to these experiences, customers develop loyalty intentions to maintain the social relationships and relational bonds in online brand communities.

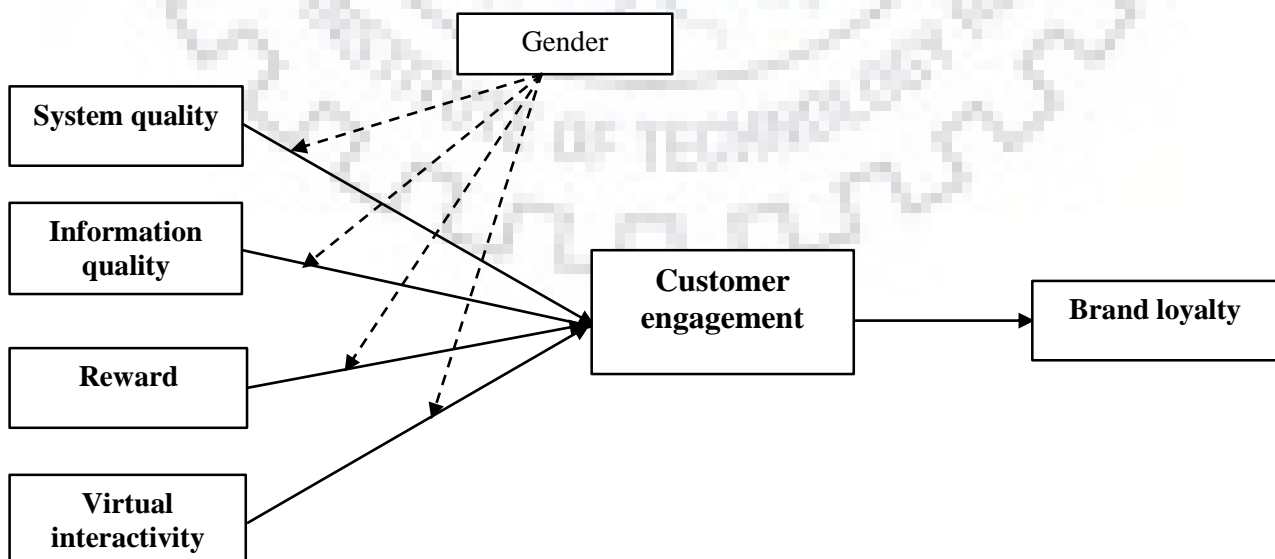


### 3.2. THE PROPOSED CONCEPTUAL MODEL

Customer engagement in the online brand communities is initiated within social media applications (e.g., Facebook) via a website (Cao et al., 2005; Ou and Sia, 2010). This research specifically looks at the online brand community characteristics that have frequently been cited within the website and brand community design literature. Characteristics such as information quality and system quality have been considered as imperative to incorporate while designing an effective company website (Cao et al., 2005; Gupta and Utkarsh, 2014; Ou and Sia, 2010), whereas interaction and rewards have been suggested to enhance satisfaction and brand awareness as well as generate favorable customer attitude towards online brand communities.

The conceptual model in this study is, therefore, proposed to investigate the collective impact of online brand community characteristics (viz. system quality, information quality, reward, and virtual interactivity) on customer engagement, and also to examine the relationship between customer engagement and brand loyalty. Furthermore, prior research suggests the exploration of the effects of gender differences on customer engagement in online brand communities (Cambra-Fierro et al., 2015; Hammedi et al., 2015) as consumer behavior is likely to differ across genders (Ruane and Wallace, 2013). Considering the dearth of understanding regarding the moderating role of gender in relation to online brand communities (Hammedi et al., 2015; Ladhari and Leclerc, 2013), this research further analyzes how different genders (male and female) influence the relationship between key characteristics of online brand communities and customer engagement. Figure 3.1 presents the conceptual model proposed by this study.

**Figure 3.2 The proposed conceptual model**





The following section gives a brief overview of the proposed antecedents and outcome of customer engagement in an online brand community. The four concepts viz. system quality, information quality, reward, and virtual interactivity as characteristics of online brand communities are proposed antecedents of customer engagement as these characteristics have largely been studied in website and online brand community design literature and have been regarded as appropriate features to be included in a company's website or a brand page (Barreda et al., 2015; Bhatti et al., 2000; Jang et al., 2008; Reitz, 2012). Additionally, research suggests that the presence of these characteristics on a company's brand page can assist in shaping consumer perceptions that ultimately leads to brand awareness, brand loyalty, and (re)purchase intentions (Barreda et al., 2015; Cao et al., 2005; Cyr et al., 2009; Jang et al., 2008; Reitz, 2012). The following section also gives a brief description of brand loyalty as the proposed outcome of customer engagement. Brand loyalty is considered as an important consumer behavioral outcome of firm's online marketing efforts and, therefore, is considered as an outcome of customer engagement on a company's online brand community.

### **3.2.1. System Quality**

The role and importance of system quality in the context of online brand communities and e-commerce is well recognized in the literature (Ahn et al., 2007; Barreda et al., 2015; Jang et al., 2008). In an online environment, system quality focuses on the technical aspects of a system in terms of production and dissemination of information (DeLone and McLean, 1992); but it does not include technological glitches at the users' side. Some key examples of system quality demanded by online users include usability, availability, reliability, adaptability, accessibility, and response time (DeLone and McLean, 2003; Wang and Lin, 2012). System quality depicts an individual's assessment of the system features and their performance based on his or her experience of using the system (Nelson et al., 2005). As the technological features of an online brand community are critical in supporting user interaction online, system quality, therefore, is a crucial factor in evaluating the success of an online brand community (Zheng et al., 2013). Indeed, a company is expected to design online brand communities with such system qualities that enable users to efficiently and effectively gain desired information and participate in group discussions (Ma and Agarwal, 2007).

To minimize information overload, an online brand community should provide well organized and clear navigation and search tools that allow members to easily locate or share information (Gu et al., 2007). Companies can also implement filtering techniques so as to give users option of blocking and filtering out irrelevant and junk information (Zheng et al., 2013). A better system quality makes members' participation easy, enjoyable and appreciated, which eventually maximizes members' benefits of participation and engages them with the online brand community.

### **3.2.2. Information Quality**

Information quality has gained reasonable attention in the online brand community development and website design literature (Jang et al., 2008; Zheng et al., 2013). Be it a website or a company's online brand community, disseminating information remains its basic objective (Bhatti et al., 2000; Huizingh, 2000). Information quality is defined as "a consumer's perception of product and company information based on a set of judgment criteria that cover accuracy, relevance, helpfulness, up-to-datedness, and unbiased measures" (Ou and Sia, 2010, p. 918). In the consumer behavior literature, information quality has been suggested to be a key website/online brand community characteristic that influences consumer evaluation and attracts customers towards a website or a brand community (Barreda et al., 2015; Jang et al., 2008; Ou and Sia, 2010). While quoting the well-known slogan "content is king", Huizingh (2000, p. 124) considers information quality as one of the most influential features of a webpage.

The reason that information quality attracts a company's target audience, Barreda et al (2015), Jang et al (2008), and Zheng et al (2013) argue that information quality must be at the forefront of a company's online brand community design and development. In an online brand community, high-quality information in terms of discussion and shared posts will help members gain a better understanding of the brand, and make a better purchase-related decision (Zheng et al., 2012). High-quality information benefits both the members who intend to get advice on a particular topic and obtain valuable information as well as the members who provide this high quality information. For instance, with useful information, a member can assist more people who seek information and, therefore, increase his or her personal image and reputation in the community (Gu et al., 2007). Thus, it is crucial for companies to present up-to-date, relevant, and accurate information to their customers in order to meet their needs, satisfy and engage them with their online brand communities.

### **3.2.3. Reward**

Prior research reveals various motivations for customers to engage in an online brand community, such as peer recognition, enjoyment, social-enhancement, sense of self-worth, and reward or reputation (Dholakia et al., 2004; Jeppesen and Frederiksen, 2006; Kozinets, 1999; Rohm et al., 2013). Of them, reward has been suggested to be the most influential driving force that impels a person to participate in an online brand community (Dessart et al., 2015; Doorn et al., 2010; Fuller, 2010). When a firm acknowledges a customer's contribution toward its brand through an online brand community; customer's devotion to the brand increases (Williams and Hazer, 1986). In an online environment, reward is an incentive granted to a member of an online brand community to recognize his or her behavior, efforts, and contribution towards the online brand community (Wirtz et al., 2013). Reward may be monetary, functional, or social benefits awarded to a proactive member (Barreda et al., 2015; Dholakia et al., 2009; Wirtz et al., 2013).

In an online brand community, members are admirers of a brand and they feel a strong connection with the brand when they are rewarded for their efforts and contribution (Barreda et al., 2015). Companies are asserted to provide monetary and non-monetary reward to its online brand community members in order to build a strong relationship with them. Monetary reward, for example, may include prizes, discounts and some mileage programs as initiated by some airline companies, whereas, non-monetary reward may comprise of a favorable experience of interaction among community members, membership awards, social status, entertainment, increased visibility, and recognition in the community. These kinds of rewards drive customers to act and comply with the shared behavior in an online brand community.

### **3.2.4. Virtual Interactivity**

Another feature of online brand communities that has been found to develop favorable attitude of users towards a brand and its online presence and eventually influence brand loyalty is virtual interactivity (Barreda et al., 2015; Mollen and Wilson, 2010). Steuer (1992) defines virtual interactivity as "the extent to which users can participate in modifying the form and content of the mediated environment in real time" (p. 84). Jang et al (2008) describe virtual interactivity as "the degree of information exchange among community members and between community members and the host of the community" (p. 66). Mollen and Wilson (2012) refer to virtual interactivity as "the degree to which the users perceive that the interaction between the brand and themselves to be two-way, controllable, and responsive to their actions" (p. 921). Although there

exists no specific definition for virtual interactivity (Wu, 2006), there are some agreed upon assumptions to characterize the term. Firstly, virtual interactivity is generally linked with new technology platforms, including the Internet, World Wide Web, and social media (Reitz, 2012; Stromer-Galley, 2000). Secondly, similar to interpersonal communication, virtual interactivity facilitates two-way communication that produces feedback (Kiouisis, 2002; Reitz, 2012). Lastly, virtual interactivity can be described by the user's feelings of control (McMillan and Hwang, 2002; Mollen and Wilson, 2010; Reitz, 2012).

Virtual interactivity is seen as a key technological capability for any online brand community trying to make sense of the vast amounts of online data and information (Di Pietro et al., 2012; Calefato et al., 2015). Researchers have also identified the role of online brand communities' virtual interactivity in a firm's efforts to build a strong relationship with its customers (Calefato et al., 2015; Ho and Lee, 2015). The pursuit of improving virtual interactivity guides future technological development of firms' online brand communities and, if implemented appropriately, would be instrumental in differentiating a successful brand community from that of a failing one (Barreda et al., 2015; Lee, 2005; Madhavaram et al., 2005).

### **3.2.5. Brand Loyalty**

Brand loyalty has received substantial attention in the marketing literature. Companies consistently seek and initiate various activities to build brand loyalty. The positive benefits of brand loyalty for firms are well documented (Gupta and Sharma, 2009; Islam and Rahman, 2016; Islam et al., 2017a; Knox and Denison, 2000). A direct benefit is that loyal customers are supposed to act as brand advocates, inviting relatives, friends and other (potential) customers to the brand/organization (Shoemaker and Lewis, 1999). Moreover, a consistently positive relationship has been shown between brand loyalty and organizational performance (Pihl, 2013; Reichheld, 1993). Furthermore, brand loyalty leads to long-term sustainability, increased word-of-mouth, lower price sensibility, more company stability and larger profits, reduced marketing costs, and decreased levels of customers switching to competitors (Casalo et al., 2007; Evanschitzky et al., 2006; Knox and Denison, 2000; Lynch and Ariely, 2000; Yi and La, 2004). Retaining existing customers rather than acquiring new customers is inherently viewed as a cost-effective approach (Anderson and Mittal, 2000).

In extant literature, two forms of loyalty exist as: behavioral loyalty and attitudinal loyalty (Auh et al., 2007; Hallowell, 1996). Behavioral loyalty perspective focuses on the

outcome rather than on the motivations of brand purchase (Jacoby and Kyner, 1973; Maity and Gupta, 2016). Attitudinal loyalty perspective on the other hand emphasizes on the psychological explanations of the causes behind brand loyalty (Aaker, 1996; Maity and Gupta, 2016). Behavioral loyalty is referred to as the consumers' repeat purchase intentions (Shang et al., 2006). It reflects a customer's "deeply held commitment to re-buy or re-patronize preferred product/services consistently in the future" (Oliver, 1999, p. 34) leading to repetitively purchasing the same-brand regardless of the marketing efforts and situational influences tending to cause switching behavior (Oliver, 1999).

On the other hand, attitudinal loyalty, which is how loyalty is considered in this study, is a "psychological" construct and includes a customer's commitment or preference towards a brand while considering distinctive values related to that particular brand (Chaudhuri and Holbrook, 2001; Kamboj and Rahman, 2016; Cossío-Silva et al., 2016). Under attitudinal loyalty perspective, even if a customer does not repeat the purchase but recommends the brand to other customers, the attitudinal loyalty is clear (Kursunluoglu, 2011). This study considers brand loyalty from an attitudinal perspective because the study is focused on the customers' internal evaluation of a brand based on their experience with the company's online brand community. In online brand communities, the experience offered by customer engagement develops a strong emotional bond that makes customers loyal towards the brand (Hollebeek, 2011b; Islam and Rahman, 2016).

As Figure 3.1 reflects that the proposed model studies a) the direct relationship between four characteristics of online brand communities- system quality, information quality, reward, and virtual interactivity on customer engagement, b) the direct relationship between customer engagement and brand loyalty, and c) the moderating role of gender on the relationship between the characteristics of online brand communities and customer engagement. On the basis of the proposed model, this study proposes six hypotheses (H1 ~ H6) to test. The next section describes the theoretical background and the rationale behind the proposed hypotheses.

### **3.3. Hypotheses Development**

Based on the proposed conceptual model and to accomplish the research goals of this study, six hypotheses were formulated, as are discussed below.



### **3.3.1. Influence of System Quality on Customer Engagement**

System quality refers to “speedy and convenient search for information in the community” (Jang et al., 2008, p. 66) and is “a measure of the extent to which the system is technically sound, error-free, easy to learn, user friendly, well documented, and flexible etc.” (Gorla et al., 2010, p. 219). A well-designed system is imperative for gaining organizational benefits such as cost reduction, enhanced process efficiency and increased revenues. Contrarily, an ill-designed system can prove to be destructive to organizations and lead to heightened product cost and inferior organizational efficiency (Gorla et al., 2010; Ghasemaghaei and Hassanein, 2015). System quality reflects user perceptions with respect to the ease of use, navigation, user friendliness and security of the system over time (Barreda et al., 2015).

A system that presents accurate and complete information to the members in an easy-to-interpret form is perceived to be more effective in function and helpfulness (Barreda et al., 2015; Khan and Faisal, 2001). The quality of a system provides first impression to its users to respond favorably to the visible elements of the brand; ensures customer satisfaction, develops trust, and induces repeat purchases (Shin et al., 2013; Barreda et al., 2015). If a customer perceives a system to be of high quality, enjoyable, and easy to use, he/she is more likely to engage with that system, recall the brand, and spread favorable word of mouth (McKnight et al., 2004). Therefore, we posit the link between system quality and customer engagement:

**H1:** System quality in an online brand community positively influences customer engagement.

### **3.3.2. Influence of Information Quality on Customer Engagement**

Customer engagement in an online brand community banks substantially on quality of the information related to the brand (Dessart et al., 2015; Dholakia et al., 2009). In an online environment, information quality is a “user’s’ perception of the quality of information presented on a Web site” (McKinney et al., 2002, p. 299) and reflects the comparison between users’ expectations and perceptions of information disseminated (Liu et al., 2017). Information quality is defined as “a consumer’s perception of product and company information based on a set of judgment criteria that cover accuracy, relevance, helpfulness, up-to-datedness, and unbiased measures” (Ou and Sia, 2010, p. 918). Customers in an online environment perceive information quality as the extent to which the given information confirms their expectations and meets their requirements of the particular activity in which they are engaged (Eppler, 2006). Customers also recognize the quality of information through indicators like information relevance, data richness,

information access, interactivity and customization capabilities (Popovic<sup>˘</sup> et al., 2012). Information in online brand communities with such qualities provide customers with great experience which enhances their positive brand influence and eventually their engagement intentions and long lasting relationship with the brand communities (Dessart et al., 2015). Poor information quality may be distracting because it increases customers' information search and processing costs (Gu et al., 2007). Online brand communities that provide rich information, help customers obtain individual as well as mutual benefits, are seen as more appealing (Gorla et al., 2010). Hence, customers are largely expected to engage in such communities.

Research suggests that information quality affects community commitment (Jang et al., 2008), customer satisfaction (Ghasemaghaei and Hassanein, 2015), brand awareness (Barreda et al., 2015), and organizational efficiency (Gorla et al., 2010). Brand communities that offer credible, updated, and reliable information to customers earn an apparent competitive advantage (Jang et al., 2008). Information that is relevant, sufficient, detailed, valuable, and from credible sources enables customers to attain an enhanced awareness of the brand and make better decisions related to the brand (Zhang and Watts, 2008; Zheng et al., 2013). Therefore, if the information provided on brand communities is of rich quality, it would drive customer engagement. Thus, we hypothesize the link between information quality and customer engagement:

**H1:** Information quality in an online brand community positively influences customer engagement.

### **3.3.3. Influence of Reward on Customer Engagement**

Customers interact and engage in online platforms for want of certain rewards (Doorn et al., 2010). In an exchange relationship, customers perceive what they give as a 'cost', and what they receive as a 'reward' (Braun et al., 2016). In an online context, reward refers to the degree of monetary or psychological appreciation for its proactive members (Jang et al., 2008) and reflects all the benefits that customers obtain through their relationship with the organization (Newman and Sheikh, 2012). Reward may comprise of monetary benefits (lotteries, special offers, referrals, and loyalty programs etc.), functional benefits (information and support), social benefits (peer recognition, altruism, kinship, and reputation building etc.), and psychological benefits (membership and entertainment) (Dholakia et al., 2009; Fuller, 2010; Wirtz et al., 2013; Barreda et al., 2015).



Providing incentives is seen as a crucial driver for customer engagement in online brand communities (Rohm et al., 2013). Customers seeking benefits find it adequate to participate in an online brand community that actively aims rewards to create customer awareness. These rewards affect customers' behavior to choose particular brand community among the competitive set and engage with such communities for co-creative activities (Doorn et al., 2010; Fuller, 2010). Previous studies have theoretically proposed that rewards are positively associated with the level of customers' engagement (Wirtz et al., 2013; Dessart et al., 2015). Braun et al. (2016) suggest that customers who attempt to create value through their engagement with online brand communities also aim at acquiring some financial and/or non-financial reward. The reward that customers perceive from an online brand community could presumably enhance customer engagement. Therefore, the link between rewards and customer engagement is hypothesized:

**H3:** Reward in an online brand community positively influences customer engagement.

#### **3.3.4. Influence of Virtual Interactivity on Customer Engagement**

In the recent past, the Internet has arisen as an influential medium, offering abundant facilities for customer-firm interactions (Ho and Lee, 2015). Interactivity theory advocates the advantageous role of interactivity of online platforms in building relationship with customers (Di Pietro et al., 2012; Calefato et al., 2015). Virtual interactivity refers to “the extent to which online users might participate in adjusting the content of website in real time” (Steuer, 1992, p.4) and involves “the degree of information exchange among community members and between community members and the host of the community” (Jang et al., 2008, p. 66). Prior research has studied the role of virtual interactivity in developing advanced levels of branding elements. But the enhancement of customers' knowledge of a brand through virtual interactivity has not yet been explored (Barreda et al., 2015).

In online brand communities, virtual interactivity connects customers to the brand (Duncan and Moriarty, 1998), strengthens their interactivity intentions (Madhavaram et al., 2005), enhances brand awareness (Duncan and Moriarty, 1998) and helps in brand recognition and recall (Madhavaram et al., 2005). Virtual interactivity is suggested to be imperative in developing e-satisfaction (Ho and Lee, 2015) and e-trust (Merrilees and Fry, 2003). Besides, interactivity motivates customers to stay and participate in an online community. Therefore, we hypothesize the link between virtual interactivity and customer engagement:

**H4:** Virtual interactivity in an online brand community positively influences customer engagement.

### **3.3.5. Influence of Customer Engagement on Brand Loyalty**

A need exists to develop and test (empirical) models that examine the relationship between customer engagement and relevant other concepts within the nomological network (Brodie et al., 2011; MSI, 2016). In particular, the effect of customer engagement on brand loyalty represents an important verification of engagement's true marketing impact (Hollebeek et al., 2014). Brand loyalty denotes "a consumer's favorable attitude toward a product/website/brand, along with repeat purchase behavior" (Anderson and Srinivasan, 2003; Liu et al., 2012). Specifically, while theoretical models have suggested engagement's positive effect on brand loyalty (Van Doorn et al., 2010; France et al., 2015; Verhoef et al., 2010), empirical validation of this relationship remains nebulous to date (Fernandes and Esteves, 2016; Islam and Rahman, 2016b).

Online brand community-based interactions may affect consumer preferences for, and attitude toward, a brand (Bickart and Schindler, 2001). Customers' understanding of, and engagement with, the brand are expected to increase during this interactive process, thereby in turn, reinforcing brand loyalty (Brodie et al., 2011; Dwivedi, 2015; Nadeem et al., 2015). Customer engagement may also facilitate the development of strong emotional bonds that render increased consumer loyalty to particular online brand communities (Gummerus et al., 2012; Hollebeek, 2011b). While engaging with online brand communities, customers tend to pursue particular gratifying experiences, including peer recognition, entertainment, and development of strong relationships through virtual interactivity (Brodie et al., 2013; Jin et al., 2017; Vivek et al., 2014; Hollebeek et al., 2016a), as specified under uses and gratifications theory.

Customers tend to commit to maintain such relationships (Lambe et al., 2001), therefore, develop loyalty intentions towards an online brand community as a mechanism to preserve these relationships (Dwivedi, 2015). Literature conforms that customer engagement may enhance loyalty through the cumulative effect of an persisting psychological connection as well as interactive experiences that go beyond purchase (Hollebeek, 2011a; So et al., 2015). In online brand communities, the experience offered by customer engagement develops a strong emotional bond that makes customers loyal (Hollebeek, 2011; Gummerus et al., 2012). Hence, the link between customer engagement and brand loyalty is hypothesized:

**H5:** Customer engagement in an online brand community positively influences brand loyalty.

### **3.3.6. Gender as a Moderator**

Gender socialization theory proposes that in addition to sex-specific skills, boys and girls also attain sex-specific personality attributes and self-concepts which allow them to entreat themselves as masculine or feminine, depending upon a specific culture (Barry et al., 1957). Consequently, males and females develop different value-sets which drive them to differ in terms of their value and ethical choices (Mason and Mudrack, 1996). Two research streams that have addressed the gender differences are biological sex research stream (Chang, 2006; Worth et al., 1992) and gender identity research stream (Gould and Weil, 1991; Kahle and Homer, 1985). The former stream views gender in terms of biological sex referring to males and females (Kolyesnikova et al., 2009), whereas the later stream talks of gender in terms of ‘gender identity’ referring to psychological sex (Gould and Weil, 1991), that is based on feminine and masculine personality traits (Palan, 2001). Studies propose that gender identity affects consumer attitude and, therefore, predicts consumer behavior (Worth et al., 1992). However, researchers have questioned this proposition regarding the role of gender identity in consumer behavior (Palan, 2001; Kolyesnikova et al., 2009) and have suggested biological sex as a significant predictor of consumer behavior as compared to the gender identity (Kahle and Homer, 1985; Gould and Weil, 1991). Besides, more recent studies have suggested biological sex (males and females) as a realistic segmentation variable (Palan, 2001; Das, 2014). Therefore, this study takes gender as biological sex (male and female).

As a demographic variable, gender has been suggested as an essential personal attribute that affects customers’ internet usage behaviors, including surfing, downloading, liking, sharing, and purchasing (Serenko et al., 2006). While gender effects have been examined in previous marketing research, little is known regarding the existence of potential gender effects with respect to customer engagement, including in online brand communities (Ladhari and Leclerc, 2013). Specifically, males and females tend to express different attitudes and behaviors toward Internet-based interactions. For instance, while males typically prefer ‘enjoyable’ interactions and hedonic or experiential values, females tend to seek more ‘serious’ interactions reflecting utilitarian (functional) benefits derived from their Internet usage (Ko et al., 2005); thus reflecting differing uses and gratifications theoretical motives across genders (Hollebeek et al., 2016a). Besides, as distinct from women, men are involved in less exploratory and trial behavior, accomplish less website involvement, are more likely to make more web purchases, and have

more favorable positive beliefs regarding online advertising than traditional advertising (Wolin and Korgaonkar, 2003; Richard et al., 2010).

The results regarding the moderation of gender in online environment are controversial. One stream of research suggests that gender differences play an important role in online environment as men and women behave differently on web-based interactions (e.g., Lim and Kwon, 2010; Lu and Lee, 2010; Verhagen et al., 2011). Another research stream propounds that gender gap in the online environment is declining as both men and women consider the key features like information quality and system quality etc. as equally important (Liu et al., 2017; Nadeem et al., 2015; Zha et al., 2014). Additionally, similarities and distinction among men and women was found in how web atmosphere and Internet experience influence their internet usage behavior, attitude towards website and pre-purchase assessments (Richard et al., 2010).

Males and females articulate different perceptions, attitudes and behaviors toward Internet-based interactions (Chen and Macredie, 2010). Prior research reveals that males prefer “enjoyable” relationships (e.g., aspiring for sexual relationships and seeking romance); and hedonic or experiential values (e.g., viewing pornography, playing online games etc.) while using the Internet whereas females seek “serious” relationships (while meeting new people online); and utilitarian or functional benefits (e.g., shopping/educational assistance and course information) while using the Internet (Weiser, 2000). These findings point to the notion that gender (male and female) can moderate the relationship between online brand community characteristics and customer engagement; which leads to the following hypotheses:

**H6 (a):** The relationship between system quality and customer engagement varies across gender.

**H6 (b):** The relationship between information quality and customer engagement varies across gender.

**H6 (c):** The relationship between reward and customer engagement varies across gender.

**H6 (d):** The relationship between virtual interactivity and customer engagement varies across gender.

### 3.4. CONCLUSION

This chapter has presented the theoretical framework of the study. In this chapter, a conceptual model was proposed, a brief overview of the proposed antecedents and consequences of customer engagement was presented, and related hypotheses were developed that examine the relationship between online brand community characteristics- system quality, information quality, reward, and virtual interactivity on customer engagement, and also the relationship between customer engagement and the outcome variable (i.e., brand loyalty). The model also presented gender as a moderating variable on the relationship between the characteristics of online brand communities and customer engagement. The next chapter presents the research design and methodology employed in this study.



## **Chapter 4**

### **RESEARCH DESIGN AND METHODOLOGY**

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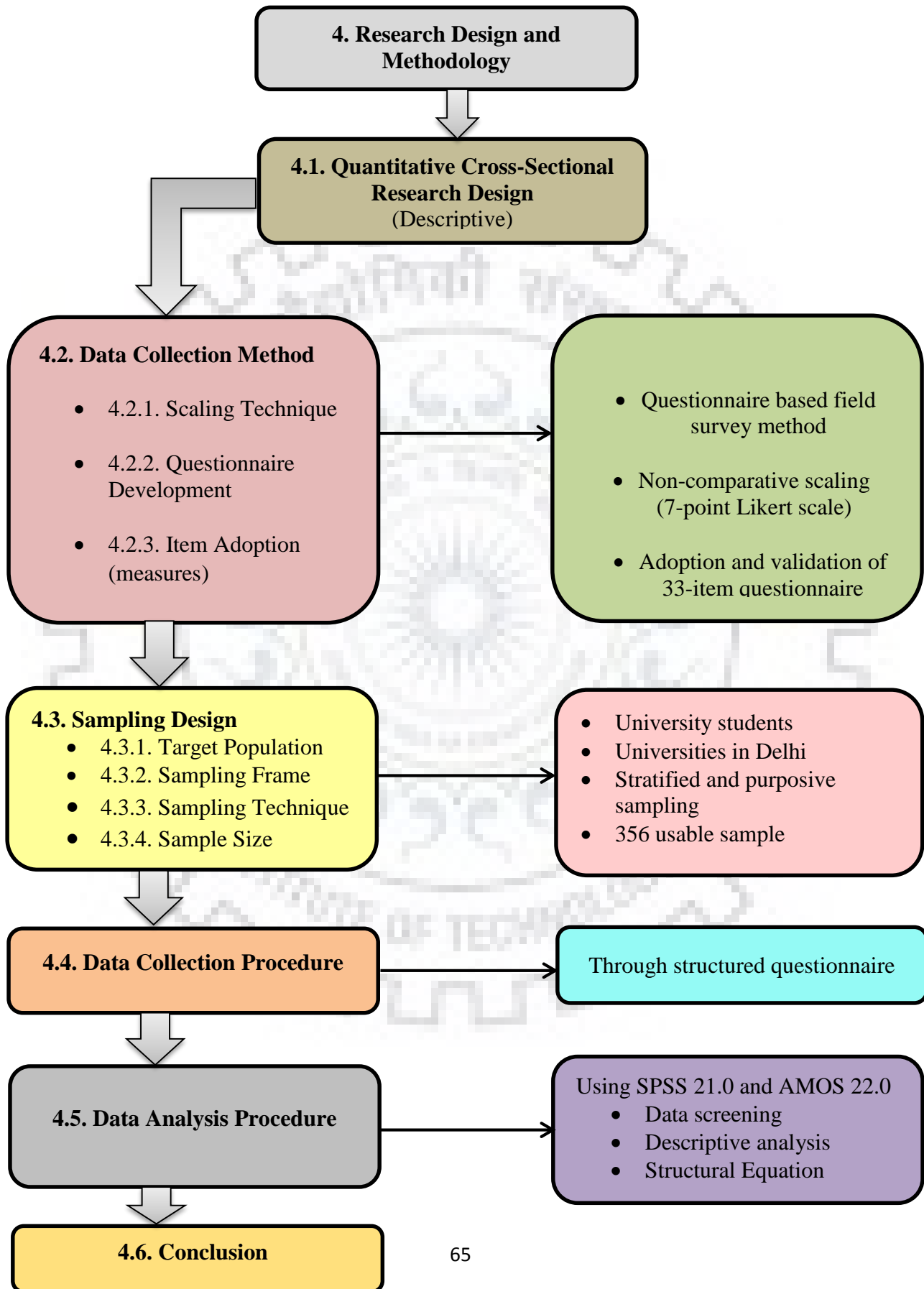
Research design and methodology provides the direction to researchers to achieve the objectives of a study and also serves as a base for research by defining the methods of data collection and analysis (Creswell, 2009; Gill and Johnson, 2002). This chapter presents the blueprint of the research design and methodology adopted to achieve the objectives of this study. The subsequent sections provide a detailed account of, and rationale for the research design and methodology followed. The sections further describe the methodology used for designing the survey instrument, sampling, data collection and analyses applied for empirical testing of the proposed hypotheses. An overview of the research design and methodology employed by this study is presented in Figure 4.1.

#### **4.1. QUANTITATIVE CROSS-SECTIONAL RESEARCH DESIGN**

Research design is “the logical sequence that connects the empirical data to the study’s initial research questions and ultimately its conclusions” (Yin, 1994, p. 28). A research design serves as a guide for envisioning the objectives of a research undertaken and equips researchers with the course of action to pursue (Antony and Banuelas, 2002; Hing and Antony, 2001). The present study has undertaken a quantitative cross survey research design for investigating the proposed relationships. The rationale for adopting a cross-sectional research design and the description of the context of the study and sampling procedures is provided in the subsequent sections.



Figure 4.1 Blueprint of research design and methodology





#### 4.1.1. Rationale for a Cross-Sectional Survey Design

Deciding upon a research design requires a comprehensive understanding of the research problem under study as well as the manner in which the problem is to be addressed. The actual objective of a research design is to develop such a course of action that offers unambiguous and impartial response towards the questions raised. The information gathered via responses should not only be confined to supporting the results, but should also be helpful in offering alternative explanations. Marketing literature has discussed three types of research design- *exploratory*, *descriptive*, and *causal* (Malhotra and Das, 2010). Considering its objectives, this study has employed descriptive research design. Descriptive research design deals with known research problems and specific research hypotheses and is pre-planned and more structured (Malhotra and Das, 2010).

This study has employed cross sectional survey design to collect data for testing the hypotheses framed in chapter three. The cross-sectional design can compare different population groups at one point in time and examine any phenomenon at a single point in time. The advantages of using a cross- sectional survey design are:

- a) Cross-sectional survey design is an effective means to collect responses from respondents with a diverse range and background (Babbie, 1989; Wang et al., 2014).
- b) Cross-sectional survey design generates large sample for generalization of study results (Kerlinger, 1986).
- c) Cross-sectional survey design helps in effectively measuring and investigating a greater number of variables (Churchill, 1995; Kerlinger, 1986).
- d) Lastly, cross-sectional survey design is economical with respect to the quantity and quality of information it develops (Kerlinger, 1986).

Considering the advantages related to cross-sectional survey design and also keeping in view the objectives of the present study, cross-sectional survey design is an appropriate research design for this study because the respondents of this study (as discussed in section 4.3.1 below) are the students enrolled in universities; therefore, it is difficult to track the same sample for survey over a period of time, because students who complete their degrees leave the campus. Besides, cross-sectional survey allows data collection from large sample in an economical and judicious manner and a large number of variables (as considered by this study) can be taken into account.

#### 4.1.2. Context

An important thought while configuring any research is to secure a suitable context for the study.

The present study is limited to certain contextual boundaries, viz:

- a) First, this study is confined only to the online brand communities available on Facebook. Facebook was selected as the study context, because it is one of the most popular global social networking sites (Kamboj and Rahman, 2016; Roblyer et al., 2010). Many organizations also employ Facebook to create brand pages to engage customers and enhance consumer relationships (Islam and Rahman, 2017). Since Facebook provides numerous online brand communities, the population of Facebook users and the amount of time spent by individuals on this social networking site are expected to continue to rise (Zaglia, 2013), rendering its high relevance as a research context for this study.
- b) Second, this study is not specific to any particular category of goods, services, industries or a brand; it is general in nature in a way that it considers online brand communities from diverse industry and product categories. The objective is to generally illustrate how prime characteristics of online brand communities influence customer engagement following interactions on them.
- c) Third, the sample of this study is restricted only to Indian nationals. The use of an Indian sample is also appropriate based on India's collectivist cultural orientation. According to Hofstede (1980), "individualism/collectivism" is a value system that inclines an individual's relationship to his/her collectivity in a society. In individualistic cultures (e.g. the USA), individuality and independence are preferred. In online brand communities, members of individualistic cultures are more likely to develop a larger number of relatively weaker and looser online brand community-based relationships (Chu and Choi, 2011). However, in collectivist cultures (e.g. India), group harmony and interdependence are paramount (Hollebeek, 2017). Therefore, collectivist online brand community users will tend to be more open, and develop stronger and more intimate social relationships, relative to members from individualist cultures (Chow et al., 2000; Chu and Choi, 2011; Tsai and Men, 2014). Engaging with online brand communities may afford consumers with opportunities to socialize with the firm and/or other community members (Tsai and Men, 2014). Given online brand communities' interactive nature, Indian customers are more likely to exhibit active engagement on these platforms based

on their relational focus. Further, collectivist consumers will tend to freely contribute to group activities, rendering their increased likelihood to share their experiences with other online brand community members (Madupu and Coole, 2010). Moreover, India has a huge Internet-savvy population who frequently shop from online portals (Sahney et al., 2013); and India is ranked first with 195 million Facebook users, ahead of the second-ranked United States of America which has 191 million Facebook users (Statista, 2016). The number of Facebook users in India is expected to reach 279.7 million by 2020 (Statista, 2016a), warranting the adoption of an Indian sample.

#### **4.2. DATA COLLECTION METHOD**

Since customer engagement is a relatively recent and an emerging domain in marketing and consumer behavior literature (Hollebeek et al., 2014), majority of studies taken up initially were conceptual in nature (Islam and Rahman, 2016b). However, in the past few years, this topic has gained an increased interest of scholars and since the year 2012, scholarly attention has shifted more toward the empirical investigation of the subject of customer engagement (Islam and Rahman, 2016b). Most of the empirical studies on customer engagement have used the questionnaire survey method to collect data (e.g., Cambra-Fierro et al., 2013; De Vries and Carlson, 2014; Dwivedi et al., 2015; Islam and Rahman, 2016; So et al., 2015). There are a number of reasons for the use of questionnaire survey as the method to collect data, key ones are: a) Questionnaire survey is an easy way to collect data and respondents easily get educated with the problem under study and respond appropriately. b) In a questionnaire survey, chances of biasness in responses get reduced because the respondents' privacy and anonymity is maintained and promised to be the key priority of the researcher. c) Questionnaire survey, according to various researchers, is inexpensive, accurate and covers a wide range of respondents (Churchill, 1979; Malhotra, 2004; Zikmund et al., 2012), and is an efficient means for collecting data from a large number of respondents on a specific topic of interest (Ali and Akbar, 2015). This study, therefore, used self-administered questionnaire to collect data from university students who had an active Facebook account and were members of at least one online brand community.

#### **4.2.1. Scaling Techniques**

Scaling is “an extension of measurement and involves creating a continuum upon which measured objects are located” (Malhotra, 2015, p. 183). Two categories of scaling techniques are commonly applied in marketing research viz. comparative scaling and non-comparative scaling. Comparative scaling directly compares two or more stimulus objects with each other (e.g., comparing whether customers prefer Pepsi or Coke). Non-comparative scaling evaluates each stimulus object independently of each other (e.g., evaluating Pepsi on a 1 to 7 preference scale). The present study employs a non-comparative 7-point Likert scale to collect data. The reason behind using the Likert scale is that it is easy to construct and administer such a scale and respondents easily understand how to use it (Malhotra and Das, 2010). A multitude of quantitative studies on customer engagement have collected data using Likert scale (Cheung et al., 2015; De Vries and Carlson, 2016; Dwivedi, 2015; Islam and Rahman, 2016a). All the items used in the survey instrument of this study have been measured using a 7-point Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”).

#### **4.2.2. Questionnaire Design**

This research administered a structured questionnaire to university students enrolled in various degrees and above courses. The key objective of the questionnaire used in this study was to collect primary data to be utilized for testing various hypotheses framed in Chapter three. For the present study, the questionnaire was developed by incorporating items from already established scales that have already been used in previous studies. The questionnaire was developed in English language. Before preparing the final questionnaire, in order to establish clarity, an expert review check by two marketing professors and one statistics professor was done, followed by a survey pre-test (pilot survey) with 50 students enrolled in MBA course of an Indian higher educational institute using convenience sampling. A sample size of 50 was considered adequate for the pilot survey as Saunders et al (2012) suggest that sample size for a pilot test should not be less than ten.

Expert review and pre-testing of the instrument was done so as to identify if there existed any problem with the words or sentences used in the questionnaire. Respondents were asked to read and understand the questions carefully and give their opinions regarding the readability and clarity of the questionnaire and suggest if any further improvements could be made. Considering the suggestions from the experts as well as the respondents of the pilot study, some modifications

in terms of word improvement for ambiguous questions were made in the final questionnaire so as to make it more clear and easy to understand for a respondent.

An initial evaluation of reliability for each of the measures was done, resulting in a research questionnaire with 38 questions including 33 scale items measuring 6 distinct constructs. After the pre-testing process through expert review and pilot study, the final questionnaire was drafted; which comprised of structured questions in three sections. The first section comprised of some open-ended questions that probed about the frequency with which a respondent checked his/her Facebook account as well as his/her favorite online brand community, an online brand community a respondent followed, various activities a respondent performed on his/her favorite brand community etc. The second section of the questionnaire dealt with information related to the constructs in the proposed model (information quality, system quality, virtual interactivity, reward, customer engagement, and brand loyalty). The third section consisted of questions related to respondents' demographic information. The final questionnaire prepared is presented as Appendix II.

#### **4.2.3. Measures of Constructs**

This section describes various measures adopted in order to quantify proposed variables incorporated in the conceptual model (as developed in Chapter 3). The four key characteristics of online brand communities as considered by this study include information quality, system quality, virtual interactivity, and rewards. **System quality** was measured by adopting six items from Ahn et al (2007). The six items are; “[*name of the OBC*] has an appropriate style of design”, “[*name of the OBC*]” has easy navigation to information”, “[*name of the OBC*] has fast response and transaction processing”, “[*name of the OBC*] keeps personal information secure from exposure”, “[*name of the OBC*] has good functionality”, and “[*name of the OBC*] creates an audio-visual experience”. **Information quality** was measured by adopting six items from Ahn et al (2007). These six items include; “[*name of the OBC*] provides complete information”, “[*name of the OBC*] provides site-specific information”, “[*name of the OBC*] provides accurate information”, “[*name of the OBC*] provides timely information”, “[*name of the OBC*] provides reliable information”, and “[*name of the OBC*] communicates information in an appropriate format”. **Reward** was measured by adopting three items from Jang et al (2008), viz. “[*name of the OBC*] offers monetary rewards”, “[*name of the OBC*] offers psychological rewards”, and “[*name of the OBC*] upgrades (downgrades) member privileges”. To measure **virtual**



**interactivity**, three items were taken from Jang et al (2008). The items are; “[*name of the OBC*] has a high degree of activity in informational and interpersonal exchanges”, “[*name of the OBC*] has a high speed of inquiry and response”, and “[*name of the OBC*] makes exchanges between host and members”.

The central construct of this study i.e., **customer engagement** (conceived by this study as a reflective second-order construct comprising on cognitive processing, affection, and activation) was measured by borrowing items from Hollebeek et al.’s (2014) ten-item scale. The items are; “Using [*name of the OBC*] gets me to think about the brand”, “I think about [*name of the OBC*] a lot when I’m using it”, “Using [*name of the OBC*] stimulates my interest to learn more about the brand”, “I feel very positive when I use [*name of the OBC*]”, “Using [*name of the OBC*] makes me happy”, “I feel good when I use [*name of the OBC*]”, “I’m proud to use [*name of the OBC*]”, “I spend a lot of time using [*name of the OBC*], compared to other brand communities”, “Whenever I’m using an online brand community, I usually use [*name of the OBC*]”, and “[*name of the OBC*] is one of the online brand communities I usually use when I use an online brand communities”.

This study has considered brand loyalty as an outcome of customer engagement. To measure **brand loyalty**, three items were adopted from Zeithaml et al. (1996) and Parasuraman et al. (2005) and two items borrowed from (Pedersen and Nysveen, 2001). These are; “I say positive things about [*name of the OBC*] to other people”, “I recommend [*name of the OBC*] to someone who seeks my advice”, “I encourage friends and others to do business with [*name of the OBC*]”, “I will be loyal to [*name of the OBC*] in the future”, and “I will keep on being a customer of [*name of the OBC*]”.

#### **4.3. SAMPLING DESIGN**

Selecting a suitable sample to collect data is another important step for a survey based study (Churchill, 1979). Sampling plays an important role in identifying the respondent group from which information needs to be collected and analyzed for achieving the objectives of research. This study adopted a five-step sampling design process to design the sample. These five steps are: (1) defining the target population; (2) determining the sampling frame; (3) selecting a suitable sampling technique; (4) determining the adequate sample size; and (5) executing the whole sample process (Malhotra and Das, 2010). These steps are described as below:

### **4.3.1. Target Population**

The target population represents the elements of the sample from whom the data would be collected by researchers (Neuman, 2006). At times, population is so large that measuring it can only be managed through carefully identifying a representative target population. As suggested by Malhotra and Das (2010), target population is described in terms of: sampling elements, sampling units; extent; and time frame. For the present study, the target population is presented below:

- *Sampling elements:* Students enrolled in universities;
- *Sampling units:* Universities;
- *Time frame:* January – February, 2016; April - May, 2016;
- *Extent:* Delhi.

#### **4.3.1.1. Elements: University Students**

In this study, elements of the target population are students enrolled in universities. Students of universities were chosen as the respondents for this study, because they are (a) tech-savvy, frequently exposed to and experienced with using the Internet (Nadeem et al., 2015), (b) ranked as Facebook's highest demographic user group (Burbary, 2011); and (c) show relatively high usage of Facebook-based online brand communities (Islam and Rahman, 2016a; Islam et al., 2017a, 2017b; Kamboj and Rahman, 2016). Considering the overall purpose of the present study, only those students who had an active Facebook account and were members of at least one Facebook-based online brand community and were interested to voluntarily participate in the survey were taken as the respondents for this study (Islam and Rahman, 2016b).

#### **4.3.1.2. Time frame: January – February, 2016; April - May, 2016**

This study collected primary data through field survey method. This method is popular among researchers over the world and has frequently been used in the studies related to customer engagement (Dwivedi, 2015; Islam and Rahman, 2016b; So et al., 2015). This study conducted field survey in two phases in a duration of around four months (January - February, 2016 and April - May, 2016). In the first phase, a self-administered questionnaire survey was conducted in January and February, 2016. The responses received in the first wave of data collection were not sufficient. In the second phase, the researcher again visited the selected universities in person and conducted a pen and paper based survey over a period of two months (April and May, 2016)



offering a randomly selected incentive of INR 200 each for fifteen respondents with complete responses. The responses finally received after second phase of field survey were adequate. As the data were collected from students of universities in Delhi, the researcher collected data during official working hours of various institutes during week days.

#### **4.3.1.3. Extent: Delhi**

For this study, Delhi (i.e., the capital of India) was taken as the geographical extent to collect data from. The reasons of its selection as the extent for the present study are that Delhi accounts for one of the highest traffic to social media sites in India (Jain, 2017). Besides, Delhi is one of the fastest developing states in India. This rapid growth has led to an exposure of students towards the top global brands. As universities in Delhi provide high speed internet access (wired/wireless) to their students which reinforces their use of social media. Due to this exposure, students are becoming brand sensitive and are rigorously following their brands via their online brand communities. Additionally, Delhi is the capital of India where students from different parts of India come to pursue their education. This brings a multicultural and multilingual diversity in the demographics of respondents and acts a microcosm of the Indian population.

#### **4.3.2. Sampling Frame**

The sampling frame depicts all elements of the target population from which the sample is to be drawn (Bryman and Bell, 2015). In this study, universities in Delhi are the target units and students enrolled in these universities are the sampling elements. ‘University’, in India, means “a University established or incorporated by or under a Central Act, a Provincial Act or a State Act and includes any such institution as may, in consultation with the University concerned, be recognized by the University Grants Commission (UGC) in accordance with the regulations made in this regard under the UGC Act, 1956” (MHRD, 2016). The list of universities located in Delhi that comprise of *central universities* (established or incorporated by a Central Act), *state universities* (established or incorporated by a Provincial Act or by a State Act), *deemed universities* (high-performing institutions, which have been so declared by Central Government under Section 3 of the University Grants Commission (UGC Act, 1956), and *institutes of national importance* (established by Act of Parliament and declared as Institution of National Importance) were retrieved from the official website of University Grants Commission of India

(UGC, 2016) . The reason for selecting universities from the UGC directory is that in India, the UGC is the legal body established by the Indian Union government responsible for the coordination, determination and maintenance of higher educational standards in the country. There are around 24 universities classified into four categories located in Delhi (see Table 4.1). All the 24 universities identified during the search are presented in Appendix III. Amongst the identified 24 universities, an adequate sample was taken for the present study; the sampling technique to configure the adequate sample is discussed in the next section.

**Table 4.1 Total number of universities in Delhi**

<b>University category</b>	<b>No. of universities</b>
Central university	5
State university	6
Deemed university	9
Institute of national importance	4
<b>Total</b>	<b>24</b>

#### **4.3.3. Sampling Technique**

Samples can either be drawn through probability sampling or non- probability sampling. In probability sampling, each element has the same probability of being included in the sample whereas in non-probability sampling each element does not carry the same probability of being included in the sample. In the present study, two types of sampling have been adopted: (i) Probability sampling (stratified random sampling and simple random sampling using lottery method) to select sampling units and (ii) Non-probability sampling (purposive sampling) to select final sample elements.

There is no study in customer engagement literature that suggests a specific rule for selecting the number of universities (i.e., sampling unit) for research. Studies on customer engagement among students have chosen sampling units either according to a researcher's convenience or purpose (e.g., Dwivedi, 2015; Islam and Rahman, 2016a; Vivek et al., 2014). In this study, stratified random sampling (Imbens and Lancaster, 1996; Neyman, 1934) has been applied to choose sampling units (universities) from the total number of universities located in Delhi. According to UGC, there are 24 universities located in Delhi (as shown in Appendix III). This study stratified these 24 universities into four standard strata as mentioned by University Grants Commission India as well as Department of Higher Education, Ministry of Human

Resource Development, India. Strata-1 comprised of 5 central universities, Strata-2 comprised of 6 state universities, Strata-3 comprised of 9 deemed universities, and Strata-4 comprised of 4 institutes of national importance.

Next, considering the limitations of time and money, it was not possible to take students from all the twenty-four universities as the respondents for this study, therefore, using Lottery method (simple random sampling), one university (equal number) from each strata was selected to collect data from. Each university belonging to a stratum was assigned a unique code. For selecting a university from a stratum, the unique codes were written on pieces of paper, placed in a bowl and thoroughly mixed. The researcher (blind-folded) then picked up a piece of paper with the unique code from the bowl. Thus, a university was selected. The same procedure was followed for selecting a university from each of the stratum, leading to a total of four universities to be selected for data collection. These four universities are as below:

- *Statum-1 (central universities):* Jamia Millia Islamia;
- *Statum-2 (state universities):* Ambedkar University Delhi;
- *Statum-3 (deemed universities):* Jamia Hamdard;
- *Statum-4 (institutes of national importance):* Indian Institute of Technology Delhi.

This sampling technique was adopted to ensure that universities of each stratum had an equal chance to be selected for the survey and, therefore, obtain a representative sample.

In the next stage, the researcher identified the sample size to be taken from each stratum using the formula as proposed by Yamane (1967). The formula is suggested to be applied to calculate the sample size for finite population. The formula is:

$$n = \frac{N}{1+N(e)^2}$$

(Where n = sample size, N = population, and e = sampling error).

As per the universities' record, the number of students enrolled in the selected universities during the session 2015-2016 is given in Table 4.2 below:

**Table 4.2 Total number of students enrolled in degree classes and above in the selected universities**

University	No. of students
Jamia Millia Islamia	14098
Ambedkar University Delhi	1757

Jamia Hamdard	3340
Indian Institute of Technology Delhi	7780

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(Source: Statistical data sheets of respective universities, 2015-2016)

Applying the above discussed formula, the sample size to be taken from each stratum is calculated below. This study assumes a confidence level of 95% therefore,  $e = 0.05$ .

For Jamia Millia Islamia, where  $N = 14098$ ,

$$n = 14098/1+14098 (0.05)^2$$

Therefore,  $n = 389$  (approx.)

For Ambedkar University Delhi, where  $N = 1757$ ,

$$n = 1757/1+1757 (0.05)^2$$

Therefore,  $n = 326$  (approx.)

For Jamia Hamdard, where  $N = 3340$ ,

$$n = 3340/1+3340 (0.05)^2$$

Therefore,  $n = 357$  (approx.)

For Indian Institute of Technology Delhi, where  $N = 7780$ ,

$$n = 7780/1+7780 (0.05)^2$$

Therefore,  $n = 380$  (approx.)

Therefore, the total sample size to be taken from all the four strata is 1452 (i.e.,  $389 + 326 + 357 + 380$ ).

In the next stage, considering the overall objective of this study, purposive sampling (which is one of the non-probability sampling techniques) was employed and questionnaires were distributed to prospective respondents in the university campuses. Only those students who had an active Facebook account and were members of at least one Facebook-based online brand community were considered to be the respondents of this study. The questionnaires were distributed to the required number of potential respondents from each university. In order to ensure proper representation, a minimum of 83 responses from each university was decided to be taken. The detailed procedure for data collection is explained in section 4.4.

#### 4.3.4. Sample Size

Determining an appropriate sample size to be incorporated in a quantitative study is an important issue. To determine the required sample size largely depends upon some qualitative factors such as importance of the problem under study and its solution, the nature and type of research, number of variables, sample size taken by other relatively similar studies, response rate, methodology to be used, and resource constraints etc. (Malhotra and Das, 2010). Although a larger sample size represents the population more accurately, but it is difficult to acquire a large sample size due to time and cost constraints (Saunders et al., 2012).

Scholars have offered varying opinions with respect to an adequate sample size (Hair et al., 2010). For instance, Hair et al (2010) suggest that 10-15 participants should be taken for each variable and their corresponding items. This means, a study with 10 items needs to take a sample size of 100 or 150 for applying various statistical techniques. According to Nunnally (1978), the number of participants should be ten times the number of measurement items. Comrey and Lee (1992) consider a sample size of 100 as poor and 1000 as excellent, and 300 as an appropriate sample size. A sample size of 300 is also suggested to be adequate by Kass and Tinsley (1979). Researchers also advocate that the sample size should not be less than 300 if factor analysis is to be applied (Tabachnick and Fidell, 2006); and if Structural Equation Modeling (SEM) is to be employed, then a sample size should be greater than 200 (Reinartz, et al., 2009), it should be around 250 (Schumacher and Lomax, 2004), and the minimum sample size should be at least 10 times the number of items (Chin and Newsted, 1995; Mahdavi et al., 2008). The present study comprises of 33 items for six distinct constructs. Following the theoretical arguments of itemization, a sample size of 330 (i.e., 33\*10) or above is acceptable for the present study as it fulfills the recommended criteria.

Besides the mentioned researchers, Tabachnick and Fidell (2007) as well as Green (1991) recommends the following formula to configure a sample size:

$$N \geq 50 + 8 m$$

(Where, N = minimum sample size required, and m = number of items included)

Considering the minimum requirement as per the above formula: the minimum required sample size for this study must be anything greater than 314;  $N > 50 + (8*33) = 314$ . This study targeted a sample of 1452 respondents in two phases of online survey. Only 160 responses were received back in the first phase. Respondents were again approached for data collection in the second

phase of survey, which yielded a response of 265 participants. Out of the total of 425, after removing the incomplete responses, a total of 356 valid responses were taken for the statistical analysis to achieve better results. Therefore, 356 as the sample size of this study satisfy the entire minimum requirement as suggested by the theoretical arguments above.

#### **4.4. DATA COLLECTION PROCEDURE**

This study used a paper based self-administered questionnaire survey to collect data from students who were enrolled in different degree courses and above in four selected universities in Delhi. The researcher, after obtaining the required permissions, visited various departments of the four universities during the official working hours in week days. The researcher took help of the academic staff members of the university to conduct the survey. Students, at the end of their lectures, were informed about the survey. Before distributing the questionnaire, students were provided with a definition of, and introduction to, online brand communities by means of a 10-minute presentation. Definitions and examples of online brand communities were also shared with the students.

Any student queries were then answered by the researcher. To ensure respondent eligibility, two screening questions were first employed to rule out those students who did not use Facebook or were not members of at least one Facebook-based online brand community. The potential respondents were then asked to name their favorite Facebook-based online brand community, and answer the survey questions with respect to their preferred online brand community. Respondents willing to participate were given around 15 minutes to complete the survey. The respondents were informed that there is no right or wrong answer, but only the perception. The respondents were also ensured anonymity and confidentiality. To ensure that respondents did not copy responses from other participants, different sets of questionnaires were prepared by shuffling the survey items in the second section of the questionnaire. This field survey was conducted in two phases in a duration of around four months (Phase-I: January and February, 2016 and Phase-II: April and May, 2016). Of the 1452 distributed questionnaires, 425 responses were received back. Those students (potential respondents) who did not respond to the questionnaires cited lack of interest and lack of time as the main reasons for not participating in the survey. After discarding 95 incomplete responses, a set of 356 completed questionnaires was taken for further analysis.



#### 4.5. DATA ANALYSIS PROCEDURE

Considering the objectives of this study, a multi-step data analysis procedure was adopted. To investigate the influence of key characteristics of online brand communities on customer engagement and the subsequent impact of customer engagement on the outcome variable (brand loyalty) and also to study the moderating effect of gender, this study analyzed data through SPSS 21.0 and AMOS 22.0. Following steps have been undertaken to conduct data analysis:

1. *Data Screening and Preliminary analysis*: Data screening was done to check for missing data, unusual observations and non-normal item (potential outliers). Normality of constructs was assessed through skewness and kurtosis (Hair et al., 2010).
2. *Descriptive Analysis*: Demographic profiles of respondents (e.g., age, gender, income, academic course) were evaluated through frequency and percentage ratio to distribute them into various sub-groups. Descriptive statistics such as calculating mean and standard deviations were employed to get an overview of the sample (Saunders et al., 2012).
3. *Structural Equation Modeling*: The present study employed Structural Equation Modeling (SEM) as a tool for data analysis to test the proposed research model (Figure 3.1). SEM is a multivariate technique that merges the aspects of factor analysis and regression to assess the interrelationships among constructs (Hair et al., 2010). SEM is considered to be the most appropriate multivariate analytical technique for estimating multiple, interrelated, and interdependent relationships in the quantitative research (Hair et al., 2010). SEM is employed to determine the extent to which data supports the proposed hypotheses of a theoretical model. The use of SEM has been suggested for testing theory and hypotheses (Tabachnick and Fidell, 2006). Besides, SEM improves the statistical estimation of relationships between constructs by incorporating latent variables which reduces measurement errors (Hair et al., 2010). Moreover, majority of studies in customer engagement literature have employed SEM for analyzing data (Balduz et al., 2015; De Vries and Carlson, 2014; Hammedi et al., 2015; Islam and Rahman, 2016a).

This study conducted various reliability and validity tests to analyze and validate both the measurement and structural models. The confirmatory factor model was estimated as well as model fit indices were examined to determine the model fit. Reliability and validity (convergent and discriminant) of the scale were also checked. Convergent validity was examined for



identifying the extent to which different assessment methods concurred in their measurement of the same trait (Byrne, 2009), and the purpose of testing for discriminant validity was to ascertain the extent to which independent assessment methods diverged in their measurement of different traits (Byrne, 2009).

#### **4.6. CONCLUSION**

The present chapter has explained the research design and methodology adopted to achieve the research objectives of this study. This chapter has discussed research methodology in detail including explanation and rationale for cross-sectional research design of the study, details of data collection method, scaling technique, questionnaire development, sampling design and data collection and analysis procedure followed by the present study. A detailed description of the data analysis and results is given in the next chapter (Chapter 5) of the thesis.

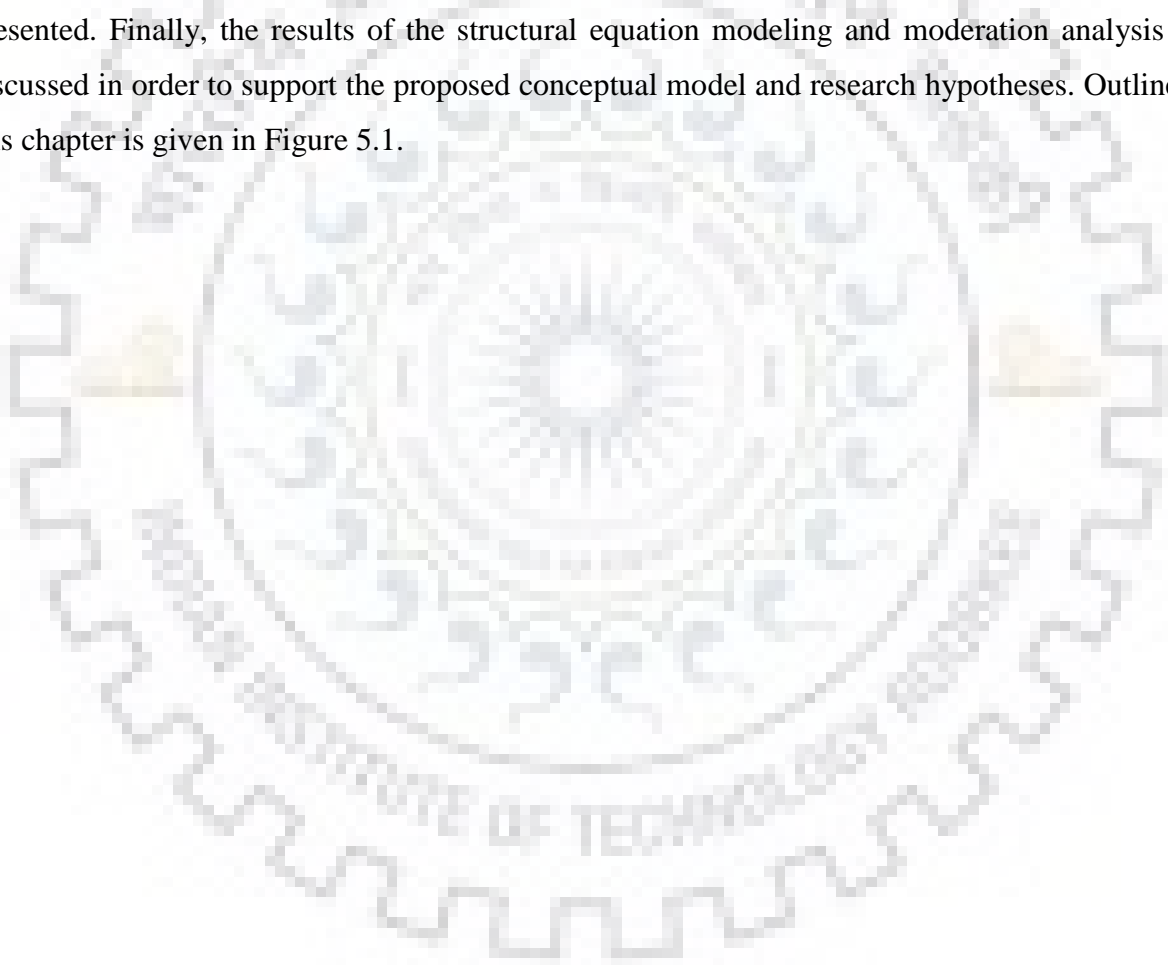


## **Chapter 5**

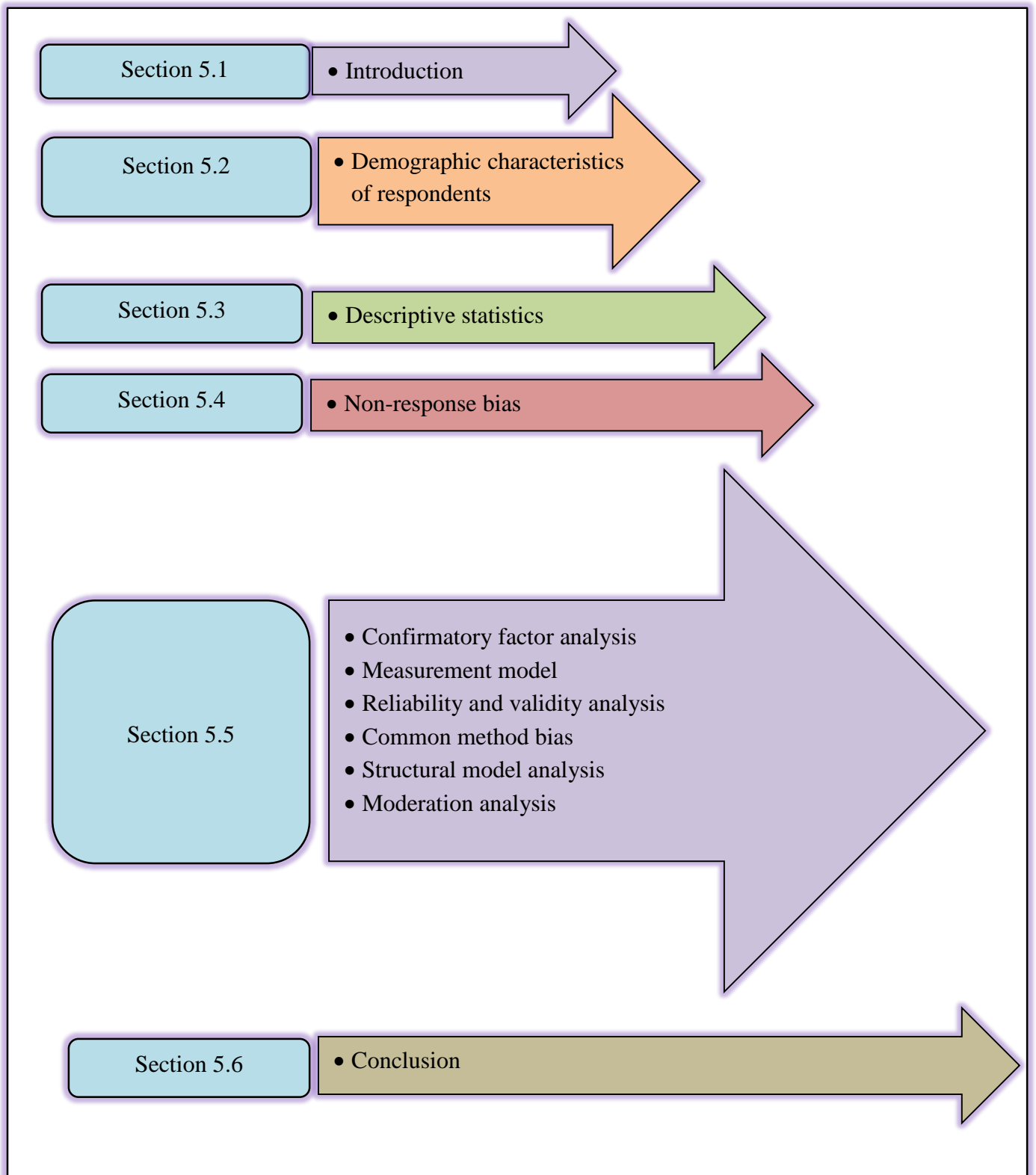
### **DATA ANALYSIS AND RESULTS**

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In this chapter, various results and findings of the primary data analysis are discussed. Numerous statistical techniques were applied in order to examine the various hypotheses developed in Chapter 3. The statistical techniques applied include confirmatory factor analysis and structural equation modeling. This chapter starts with describing the participants in terms of their demographics. This description is followed by a brief of non-response bias. A comprehensive discussion on measurement models by confirmatory factor analysis using AMOS 22.0 is then presented. Finally, the results of the structural equation modeling and moderation analysis are discussed in order to support the proposed conceptual model and research hypotheses. Outline of this chapter is given in Figure 5.1.



**Figure 5.1 Structure of Chapter 5**



## 5.1. INTRODUCTION

This study collected data through a questionnaire survey from students enrolled in different universities of Delhi, India. To analyze data, this study employed a two-step process - data cleaning and factor analysis. Data cleaning was performed to check for missing entries and outliers, and test the assumptions of multivariate analysis through SPSS 21.0. Descriptive statistics were employed by calculating mean and standard deviations in order to get an overview of the sample (Saunders et al., 2012). In the second step, Confirmatory Factor Analysis (CFA) was conducted. CFA was performed on the set of items in order to develop the measurement model. The confirmatory factor model was estimated using AMOS 22.0. Model fit indices were examined to determine the model fit. Reliability and validity (convergent and discriminant) of the scale were also checked. Convergent validity was examined for identifying the extent to which different assessment methods concurred in their measurement of the same trait (Byrne, 2009), and the purpose of testing for discriminant validity was to ascertain the extent to which independent assessment methods diverged in their measurement of different traits (Byrne, 2009).

Finally, to test the proposed research model (as presented in Chapter 3), this study employed Structural Equation Modeling (SEM). SEM is a multivariate technique that merges the aspects of factor analysis and regression to assess the interrelationships among constructs (Hair et al., 2010). This study has chosen SEM for analyzing the proposed research model because it is the most efficient estimation technique for estimating a series of multiple regression equations simultaneously (Hair et al., 2010), which means that a dependent variable can be independent in another equation. SEM has the ability to examine multiple interrelate dependence relationships by measuring the effect of several independent variables (i.e., exogenous variables) on one or more dependent variables (i.e., endogenous variables). One of the important uses of SEM technique for data analysis is to the incorporation of multiple relationships in one single model. In addition, SEM facilitates the greater flexibility in the specification of equations (Kline, 2005).

The use of SEM has been suggested for testing theory and hypotheses (Tabachnick and Fidell, 2006). SEM improves the statistical estimation of relationships between constructs by incorporating latent variables which reduces measurement errors (Hair et al., 2010). Also, majority of studies in customer engagement literature have employed SEM for analyzing data. This study used covariance based SEM for determining path relationships as such covariance based SEM works more efficiently in the case of reflective kind of models (Chin and Newsted,

1995). In the reflective kind of models, the direction of the relationship is from construct to indicators (Bagozzi, 2011). This study has utilized AMOS 22.0 statistical software for performing SEM because AMOS is a user friendly and most widely-used program in literature for analyzing structural models (Hair et al., 2010). Finally, the multi-group causal analysis in SEM was used to investigate the moderating role of gender. Various statistical techniques used in the present study are summarized in Appendix IV.

## 5.2. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

The demographic profile of respondents is summarized in Table 5.1. Of the 356 respondents, 193 were male (54.21%) and 163 were female (45.79%). One hundred and fifty-two (42.69%) respondents were in age group of 18-22 years, 94 (26.40%) were in the age group of 23-27 years, 87 (24.44%) were in the age group of 28-32 years, and 23 (6.47%) were of the age of 33 years or above. The respondents were enrolled in different courses of various universities viz. Bachelor's 157 (44.10%), Master's 124 (34.84%), doctoral program 57 (16.01 %); and others 18 (5.05%), thus representing respondents pursuing a wide range of degree programs. Annual income of majority of the respondents was found to be lying in the bracket of ₹2,00,001-3,00,000. The details of the demographic characteristics of participants are given in Table 5.1.

**Table 5.1 Demographic characteristics of participants**

<b>Demographic variable</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age (years)</b>		
18-22	152	42.69
23-27	94	26.40
28-32	87	24.44
33 & above	23	06.47
<b>Gender</b>		
Male	193	54.21
Female	163	45.79
Others	-	-
<b>Education</b>		
Bachelor's	157	44.10
Master's	124	34.84
Doctoral	57	16.01
Others	18	5.05
<b>Income (annual)</b>		
2,00,000 or less	12	3.37
2,00,001-3,00,000	103	28.93

3,00,001-4,00,000	91	25.56
4,00,001- 5,00,000	87	24.43
5,00,001 & above	63	17.69

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The majority of reported online brand communities were in the areas of fashion (33%), food and beverages (27%), electronics (26%), and automotives (14%). Sixty-three per cent of the respondents checked Facebook 1-5 times per day, and 37% checked in at least twice daily. The majority of the respondents stated visiting their preferred online brand communities frequently (e.g. 58% visit daily, 25% visit 2-3 times a week, and 17% visit their favorite online brand communities once a week). On their preferred online brand communities, respondents performed activities, including sharing their brand-related experiences, interacting with other members, participating in discussions, quizzes, games, and surveys etc., and providing feedback to information presented to them.

### 5.3. DESCRIPTIVE STATISTICS

The next phase in the data analysis plan was to compute the descriptive statistics on each variable. Descriptive statistics (see Table 5.2) were employed by calculating mean and standard deviations in order to get an overview of the sample as descriptive statistics summarize the data and describe each variable (Hayes, 2005; Saunders et al., 2012).

**Table 5.2 Descriptive statistics**

Constructs	Items	N	Minimum	Maximum	Mean	Std. Deviation
System quality	SQ_1	356	1	7	4.45	1.490
	SQ_2	356	1	7	4.58	1.614
	SQ_3	356	1	7	4.62	1.616
	SQ_4	356	1	7	4.63	1.574
	SQ_5	356	1	7	4.60	1.601
	SQ_6	356	1	7	4.47	1.370
Information quality	IQ_1	356	1	7	4.31	1.491
	IQ_2	356	1	7	4.30	1.511
	IQ_3	356	1	7	4.38	1.592
	IQ_4	356	1	7	4.37	1.487
	IQ_5	356	1	7	4.47	1.517
	IQ_6	356	1	7	4.46	1.640
Virtual Interactivity	VI_1	356	1	7	3.62	1.551

	VI_2	356	1	7	3.78	1.470
	VI_3	356	1	7	3.69	1.516
Reward	RW_1	356	1	7	3.58	1.507
	RW_2	356	1	7	3.89	1.450
	RW_3	356	1	7	3.73	1.494
Customer Engagement	Cog1	356	1	7	4.70	1.606
	Cog2	356	1	7	4.74	1.634
	Cog3	356	1	7	4.95	1.511
	Aff1	356	1	7	4.88	1.493
	Aff2	356	1	7	5.00	1.575
	Aff3	356	1	7	5.07	1.606
	Aff4	356	1	7	4.92	1.615
	Act1	356	1	7	5.15	1.565
	Act2	356	1	7	5.25	1.653
	Act3	356	1	7	5.05	1.651
Brand Loyalty	BL_1	356	2	7	5.80	1.203
	BL_2	356	2	7	5.75	1.149
	BL_3	356	2	7	5.72	1.141
	BL_4	356	1	7	5.79	1.252
	BL_5	356	1	7	5.84	1.168
Valid N (listwise)		356				

Note: ‘Cog’ indicates ‘Cognitive processing’, ‘Aff’ indicates ‘Affection’, and ‘Act’ indicates ‘Activation. These three dimensions correspond to customer engagement’s tripartite (cognitive, emotional, behavioral) dimensionality.

#### 5.4. NON-RESPONSE BIAS

Following Armstrong and Overton (1977), the researcher examined non-response bias by comparing “early” and “late” responses with the help of one-way ANOVA test. To do so, fifty early responses were compared with fifty late responses. The ANOVA (using the F-distribution) was applied to compare means of all 33 observed variables. Results revealed that there was no significant difference between these two groups (see Table 5.3). Thus, the results preclude the possibility of non-response biases with respect to response time.

**Table 5.3 Result of non-response bias using ANOVA**

		Sum of Squares	Df	Mean Square	F	Sig.
SQ_1	Between Groups	9.303	6	1.551	.837	.548
	Within Groups	79.677	43	1.853		
	Total	88.980	49			
SQ_2	Between Groups	18.731	6	3.122	1.886	.105



	Within Groups	71.189	43	1.656		
	Total	89.920	49			
SQ_3	Between Groups	22.230	6	3.705	1.857	.110
	Within Groups	85.770	43	1.995		
	Total	108.000	49			
SQ_4	Between Groups	15.264	6	2.544	1.261	.295
	Within Groups	86.736	43	2.017		
	Total	102.000	49			
SQ_5	Between Groups	7.491	6	1.249	.536	.778
	Within Groups	100.189	43	2.330		
	Total	107.680	49			
SQ_6	Between Groups	12.533	6	2.089	1.294	.280
	Within Groups	69.387	43	1.614		
	Total	81.920	49			
IQ_1	Between Groups	1.186	5	.237	.155	.977
	Within Groups	67.294	44	1.529		
	Total	68.480	49			
IQ_2	Between Groups	6.223	5	1.245	.826	.538
	Within Groups	66.257	44	1.506		
	Total	72.480	49			
IQ_3	Between Groups	10.677	6	1.780	1.611	.167
	Within Groups	47.503	43	1.105		
	Total	58.180	49			
IQ_4	Between Groups	8.448	6	1.408	.919	.491
	Within Groups	65.872	43	1.532		
	Total	74.320	49			
IQ_5	Between Groups	9.425	5	1.885	1.236	.308
	Within Groups	67.075	44	1.524		
	Total	76.500	49			
IQ_6	Between Groups	6.159	6	1.027	.478	.821
	Within Groups	92.261	43	2.146		
	Total	98.420	49			
VI_1	Between Groups	20.820	6	3.470	1.787	.125
	Within Groups	83.500	43	1.942		
	Total	104.320	49			
VI_2	Between Groups	8.840	6	1.473	.888	.512
	Within Groups	71.340	43	1.659		
	Total	80.180	49			
IV_3	Between Groups	7.034	6	1.172	.609	.722
	Within Groups	82.746	43	1.924		
	Total	89.780	49			
RW_1	Between Groups	7.446	4	1.861	1.015	.410
	Within Groups	82.554	45	1.835		
	Total	90.000	49			
RW_2	Between Groups	2.604	4	.651	.365	.832
	Within Groups	80.216	45	1.783		

	Total	82.820	49			
RW_3	Between Groups	8.380	5	1.676	1.097	.376
	Within Groups	67.240	44	1.528		
	Total	75.620	49			
Cog1	Between Groups	15.944	6	2.657	1.923	.099
	Within Groups	59.436	43	1.382		
	Total	75.380	49			
Cog2	Between Groups	7.770	6	1.295	.938	.478
	Within Groups	59.350	43	1.380		
	Total	67.120	49			
Cog3	Between Groups	5.655	5	1.131	.882	.501
	Within Groups	56.425	44	1.282		
	Total	62.080	49			
Aff1	Between Groups	3.403	5	.681	.430	.826
	Within Groups	69.717	44	1.584		
	Total	73.120	49			
Aff2	Between Groups	8.490	5	1.682	1.075	.355
	Within Groups	66.240	44	1.514		
	Total	74.730	49			
Aff3	Between Groups	3.542	6	.590	.645	.693
	Within Groups	39.338	43	.915		
	Total	42.880	49			
Aff4	Between Groups	5.982	6	.997	1.091	.383
	Within Groups	39.298	43	.914		
	Total	45.280	49			
Act1	Between Groups	16.418	5	3.284	2.004	.097
	Within Groups	72.082	44	1.638		
	Total	88.500	49			
Act2	Between Groups	4.906	5	.981	.496	.778
	Within Groups	87.094	44	1.979		
	Total	92.000	49			
Act3	Between Groups	11.153	6	1.859	.958	.465
	Within Groups	83.427	43	1.940		
	Total	94.580	49			
BL_1	Between Groups	5.921	5	1.184	1.623	.174
	Within Groups	32.099	44	.730		
	Total	38.020	49			
BL_2	Between Groups	1.094	4	.273	.325	.860
	Within Groups	37.886	45	.842		
	Total	38.980	49			
BL_3	Between Groups	1.665	4	.416	.598	.666
	Within Groups	31.315	45	.696		
	Total	32.980	49			
BL_4	Between Groups	4.284	5	.857	.951	.458
	Within Groups	39.636	44	.901		
	Total	43.920	49			

BL_5	Between Groups	3.624	4	.906	1.186	.330
	Within Groups	34.376	45	.764		
	Total	38.000	49			

## 5.5. CONFIRMATORY FACTOR ANALYSIS (CFA)

Confirmatory factor analysis is a multivariate method of statistics used to identify the associations between observed measures and their latent constructs (Anderson and Gerbing, 1988). In addition, CFA models permit the researcher to confirm the validity of constructs i.e. convergent and discriminant validity of the models (Campbell and Fiske, 1959). The Chi-square test is one of the popular tests to check the adequacy of model fit in order to assess overall fit of the data within the proposed model. However, with the large sample, sometimes this test falsely points out an accepted model to be unacceptable. As a result, several other goodnesses of fit indices also need to be incorporated to overcome this drawback. As per Bentler (1990) and Bentler and Bonett (1980), both Bentler’s “Comparative Fit Index” (CFI) and Bentler and Bonett’s “Non-normed Fit Index” (NNFI) which is also known as “Tucker-Lewis Coefficient – TLI” are expected to make less biased estimates in case of large sample sizes. Therefore, these are comparatively less sensitive to large sample sizes as compare to chi-square test. Consequently, both of these CFI and NFI fitness indices have included in addition to chi-square test in order to assess goodness of fit for the overall model in this research.

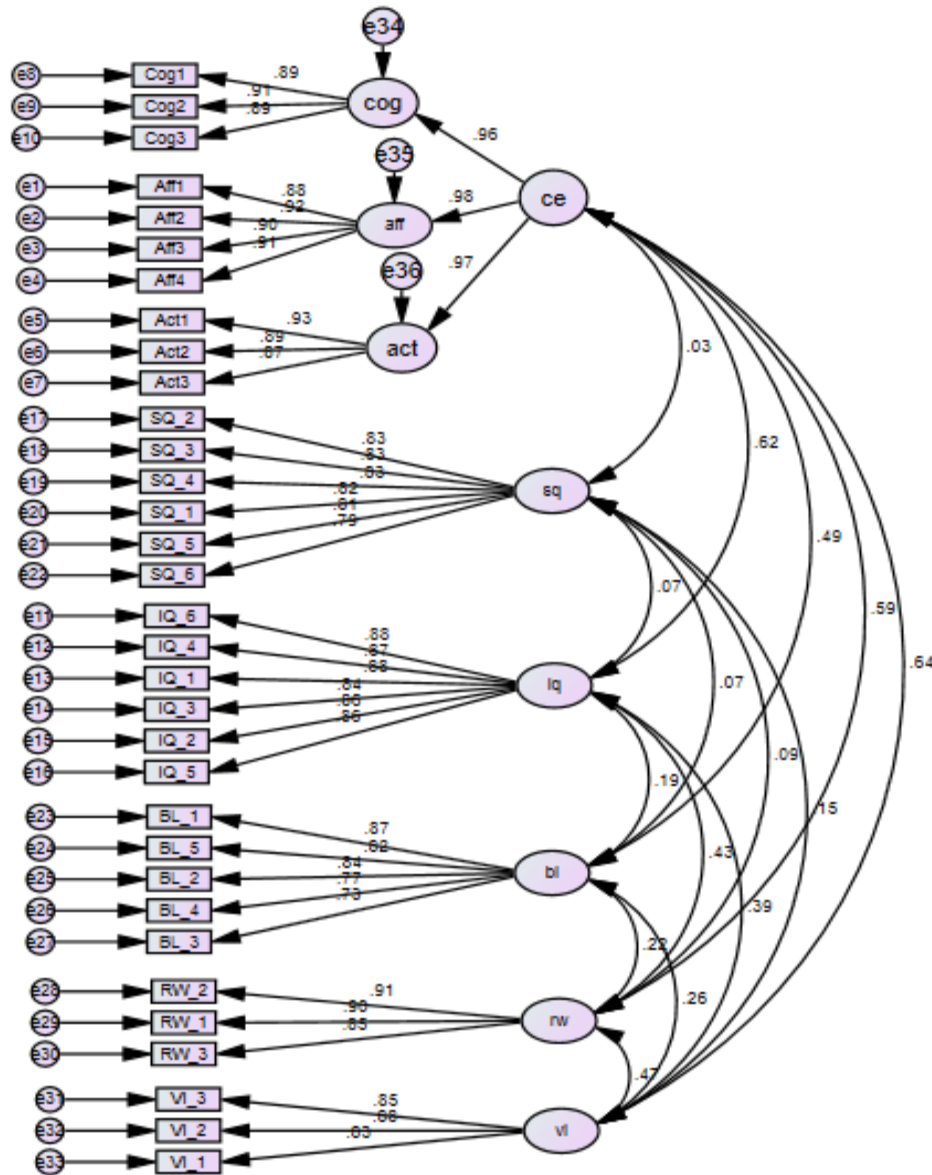
To examine the measurement model fit, reliability, convergent and discriminant validity of all items are checked. The final measurement model incorporates the entire six construct in a single model. The forthcoming sub-sections present the results obtained after an examination of model fitness along with the results of various kinds of validity and reliability tests conducted to ascertain that the model can be examined through SEM.

### 5.5.1. Measurement Model

In this research, the measurement model incorporates 33 observed items. Both the system quality and information quality have measured through 6 items each, virtual interactivity and reward have been measured through 3 items each, customer engagement has been conceived to be a second order construct comprising of cognitive processing, affection, and activation, which correspond to engagement’s tripartite (cognitive, emotional, behavioral) dimensionality. These three dimensions of customer engagement are measured through 10 items, and brand loyalty has

been measured through 5 items. Each of the measurement indices and their respective variables are closely examined to ascertain their importance in the present hypothesized research model. Finally, 33 item CFA was employed for the measurement model depicted in Figure 5.2.

**Figure 5.2 CFA Model**



The results of CFA exhibit a good model fit ( $\chi^2=620.28$ ,  $df = 477$   $p < .001$ ;  $CMIN/DF= 1.300$ ,  $RMSEA=.029$ ,  $CFI=.987$ ,  $GFI=.904$ , and  $AGFI=.887$ ,  $IFI=.987$ ,  $NFI=.944$ ,  $TLI=.985$ ). These results for the goodness of fit indices for measurement model are shown in Table 5.4.

**Table 5.4 Goodness-of-fit indices for measurement model**

<b>Goodness-of-fit index</b>	<b>Model-fit result</b>
Chi-square ( $\chi^2$ ) statistic	620.28 (p< 0.001)
Degree of freedom ( <i>df</i> )	477
$\chi^2/df$	1.300
GFI	0.904
CFI	0.987
NFI	0.944
IFI	0.987
TLI	0.985
RMSEA	0.029

Next, an examination of the reliability and validity of the variables was undertaken. The Cronbach alpha values of all the factors ranged from 0.890 to 0.972 (i.e., greater than the minimum acceptable value of 0.70) which indicates good internal consistency among all the items, thereby confirming the reliability of all the constructs (Anderson and Gerbing, 1988; Bahl and Wali, 2014; Chan and Chong, 2013). After examining the reliability, convergent and discriminant validity of constructs was evaluated. Convergent validity was assessed by examining the factor loadings of the measurement model (Anderson and Gerbing, 1988). All the factor loadings were above the suggested minimum value of 0.5, thereby confirming the convergent validity criteria (Bagozzi, 2011). Composite reliability (CR) values ranged from 0.891 to 0.982 and the values of AVE ranged from 0.652 to 0.947, thus signifying the acceptable values (Fornell and Larcker, 1981). The results related to the reliability and validity of the constructs in presented in Table 5.5.

**Table 5.5 Reliability and validity of the constructs**

<b>Construct</b>	<b>Items</b>	<b>Factor Loadings</b>	<b>Cronbach <math>\alpha</math></b>	<b>Composite Reliability</b>	<b>Average Variance Extracted</b>
System quality			0.923	0.924	0.669
	SQ_1	0.82			
	SQ_2	0.83			
	SQ_3	0.83			
	SQ_4	0.83			
	SQ_5	0.81			
	SQ_6	0.79			
Information quality			0.947	0.947	0.749

		IQ_1	0.88		
		IQ_2	0.86		
		IQ_3	0.84		
		IQ_4	0.87		
		IQ_5	0.86		
		IQ_6	0.88		
	Reward			0.917	0.918
		RW_1	0.90		
		RW_2	0.91		
		RW_3	0.85		
	Virtual interactivity			0.890	0.891
		VI_1	0.83		
		VI_2	0.88		
		VI_3	0.85		
	Customer engagement			0.972	0.982
		Cog1	0.89		
		Cog2	0.91		
		Cog3	0.89		
		Act1	0.93		
		Act2	0.89		
		Act3	0.87		
		Aff1	0.88		
		Aff2	0.92		
		Aff3	0.90		
		Aff4	0.91		
	Brand loyalty			0.902	0.903
		BL_1	0.87		
		BL_2	0.84		
		BL_3	0.73		
		BL_4	0.77		
		BL_5	0.82		

Discriminant validity was assessed by comparing the squared root of the AVE of each construct with its corresponding correlations (Fornell and Larcker, 1981). The findings (as shown in Table 5.6) indicated that the squared root of the AVE of each construct exceeded the relevant inter-construct correlations, suggesting an acceptable level of discriminant validity (Fornell and Larcker, 1981).

**Table 5.6 Mean, Standard Deviation, and Correlation values**

N=356	Mean	SD	VI	SQ	IQ	BL	RW	CE
Virtual interactivity (VI)	3.696	1.512	<b>0.856</b>					
System quality (SQ)	4.558	1.548	0.152	<b>0.818</b>				
Information quality (IQ)	4.381	1.539	0.395	0.071	<b>0.865</b>			
Brand loyalty (BL)	5.604	1.182	0.264	0.066	0.195	<b>0.808</b>		
Reward (RW)	3.733	1.483	0.470	0.087	0.432	0.221	<b>0.888</b>	
Customer engagement (CE)	4.971	1.590	0.642	0.028	0.616	0.492	0.594	<b>0.973</b>

(Note: SD depicts standard deviation, CR depicts composite reliability, and AVE depicts average variance extracted. The bold numbers in the diagonal line are the square root of AVEs. All values are significant at  $p < 0.001$ ).

### 5.5.2. Examining Common Method Bias

All the constructs were measured using multi-item self-report scales, thus generating a possibility of common method bias that may result for constructs sharing common measurement methods (Chan et al., 2012; Podsakoff et al., 2003). To test for common method bias, this study followed Podsakoff et al.'s (2003) recommendations. First, the respondents were informed that there are no right or wrong answers to the survey questions, but only their perceptions and evaluations of particular survey items (e.g. un/favorable). They were also informed that all survey responses will be kept confidential, allowing them to answer the questions honestly. Next, Harman's single-factor test was deployed to test for common method bias (Podsakoff et al., 2003). Using this test, when a single factor accounts for most of the covariance ( $>50\%$ ), the presence of common method bias is suggested (Podsakoff et al., 2003). To do so, all the 33 final items were included in an un-rotated principal-component exploratory factor analysis (extracting only one factor). The results (see Table 5.7) show that the variance explained by the first factor was 39.70% (i.e.  $< 50\%$ ), confirming that common method bias does not pose an issue in this study, and is unlikely to have affected the results (Podsakoff et al., 2003).

**Table 5.7 Harman's single factor test**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.101	39.701	39.701	13.101	39.701	39.701
2	4.405	13.348	53.049			



3	3.376	10.230	63.279		
4	2.254	6.831	70.110		
5	1.510	4.576	74.686		
6	1.266	3.836	78.522		
7	.487	1.476	79.998		
8	.442	1.338	81.336		
9	.422	1.280	82.616		
10	.397	1.202	83.818		
11	.391	1.184	85.002		
12	.371	1.123	86.125		
13	.333	1.010	87.135		
14	.322	.976	88.111		
15	.302	.914	89.025		
16	.282	.854	89.879		
17	.272	.823	90.702		
18	.261	.791	91.493		
19	.248	.751	92.243		
20	.242	.733	92.976		
21	.232	.704	93.680		
22	.227	.687	94.367		
23	.222	.672	95.039		
24	.213	.646	95.685		
25	.204	.617	96.302		
26	.199	.602	96.904		
27	.185	.560	97.464		
28	.175	.531	97.995		
29	.161	.487	98.482		
30	.141	.426	98.908		
31	.135	.408	99.316		
32	.120	.363	99.679		
33	.106	.321	100.000		

Extraction Method: Principal Component Analysis.

Further, Pavlou et al. (2007), and Hu et al. (2016) suggest that common method bias is unlikely if correlations are not excessively high (i.e. not > 0.9). Therefore, this study checked the correlation matrix (Table 5.6) and found that that common method bias is not an issue here, given the absence of extremely high correlation values.

### 5.5.3. Structural Model

After confirming the measurement model, the structural model was estimated in order to test the proposed hypotheses developed in Chapter 3. For the same, structural equation modeling (SEM) was performed using AMOS version 22. To determine the model's goodness-of-fit, we used  $\chi^2$  and six key fit indices, including the Comparative Fit Index (CFI), Goodness-of-Fit Index (GFI), Incremental Fit Index (IFI), Normed Fit Index (NFI), Tucker-Lewis Index (TLI), and the Root Mean Squared Error of Approximation (RMSEA) (Mahrous and Abdelmaaboud, 2017). Acceptable model fit is reflected by CFI>0.95, GFI >0.90, IFI>0.90, NFI>0.9, TLI>0.90, and RMSEA<0.06 (Hair et al., 2010). The model fit statistics of SEM along with the results of the structural model are described in Table 5.8 which shows an acceptable level of model fit between the data and hypothesized model.

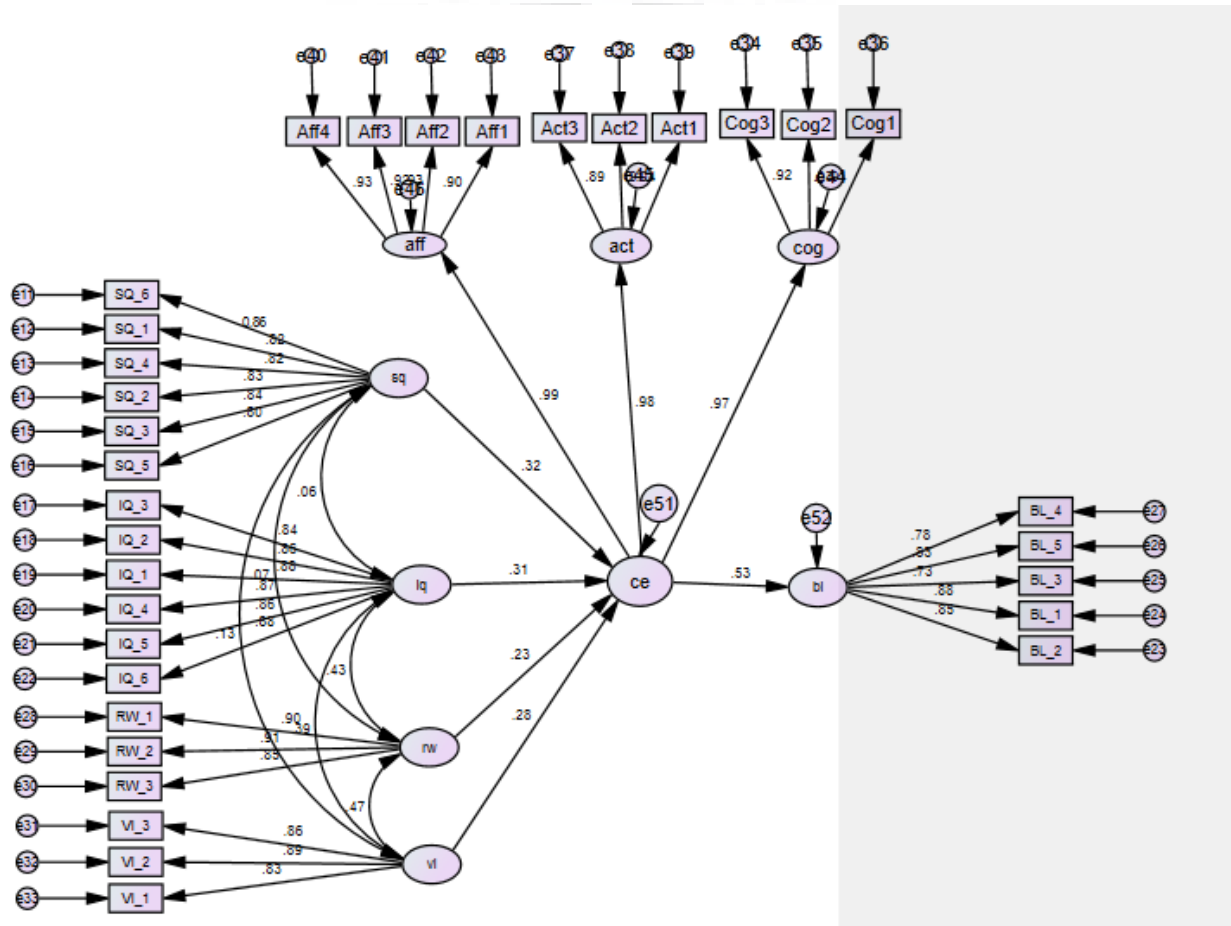
The model fit indices for structural model fall within acceptable limits ( $\chi^2=873.52$ ,  $df = 482$ ,  $p < .001$ ; CMIN/DF= 1.812, CFI=.963, GFI=.900, and AGFI=.885, IFI=.963, NFI=.922, TLI=.960). Similarly, the value of RMSEA specified that structural model has an acceptable fit with RMSEA = 0.048 (Hu and Bentler, 1999) confirming that the structural model fits well.

**Table 5.8 Results of the Structural Model**

S.No.	Hypotheses	Path coefficient ( $\beta$ )	p-values	Test results
H1	System quality- customer engagement	0.32	0.000	Supported
H2	Information quality- customer engagement	0.31	0.000	Supported
H3	Reward- customer engagement	0.23	0.000	Supported
H4	Virtual interactivity- customer engagement	0.28	0.000	Supported
H5	Customer engagement-brand loyalty	0.53	0.000	Supported
Model Fit for SEM				
	Chi-square ( $\chi^2$ ) statistic			873.52
	Degree of freedom ( $df$ )			482
	$\chi^2/df$			1.812
	GFI			0.900
	AGFI			0.885
	CFI			0.963
	NFI			0.922
	IFI			0.963
	TLI			0.960
	RMSEA			0.048

The final structural model is presented in Figure 5.3. As evident from Figure 5.3 and Table 5.8, the study findings suggest that all the relationships hypothesized in the research model were significant and supported.

**Figure 5.3 Final Structural Model**

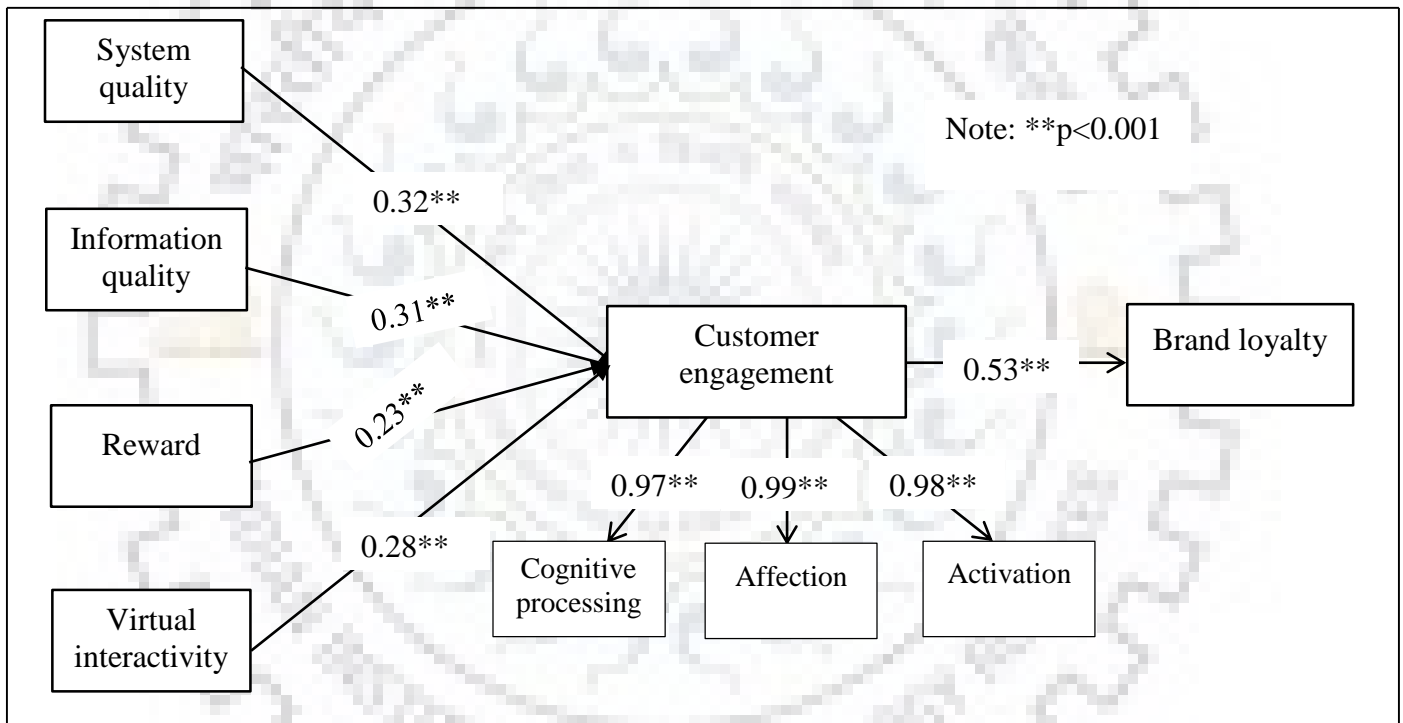


*Note:* All coefficient values are standardized and appear near the associated path, and are significant at  $p < 0.001$ .

The first hypothesis of this study proposed a direct and positive relationship between system quality and customer engagement. As depicted in final model (Figure 5.4), system quality of an online brand community positively affects customer engagement ( $\beta = .32, t = 7.021$ ), supporting Hypothesis 1. Hypothesis 2 posited the positive effect of information quality on customer engagement; the results also reveal the same ( $\beta = .31, t = 6.564$ ), thereby supporting Hypothesis 2. A positive effect of reward on customer engagement was stated in Hypothesis 3,

which is also supported by the results of this study ( $\beta = .23, t = 4.655$ ). Hypothesis 4 hypothesized a positive relationship between virtual interactivity and customer engagement; results of this study also depict a significant and positive relationship between virtual interactivity and customer engagement ( $\beta = .28, t = 5.579$ ), therefore, Hypothesis 4 is also supported. A positive effect of customer engagement on brand loyalty was proposed in Hypothesis 5. The results of this study also indicate a significant positive relationship between customer engagement and brand loyalty ( $\beta = .53, t = 10.119$ ), consequently supporting Hypothesis 5. The path estimates of the structural model are presented in Figure 5.4.

**Figure 5.4 Results of Structural Model**



### 5.5.3.1. Moderation Analysis

This study employed multi-group causal analysis in SEM to investigate the moderating role of gender as hypothesized in H6a, H6b, H6c, and H6d. To do so, the study divided the entire sample into two groups on the basis of gender: male = 193 and female = 163. A multi-group analysis was run, which compared differences in path coefficients of the corresponding structural paths for the male and female sample groups (Zhou et al., 2014). Results of the multi-group analysis showed that structural multi-group model exhibited a reasonable over all fit:  $\chi^2 =$

1695.316,  $df = 1007$ ,  $p < 0.001$ ;  $\chi^2 / df = 1.684$ ; CFI = 0.936, GFI = 0.903, AGFI = 0.892, NFI = 0.923, IFI = 0.942, TLI = 0.939, and RMSEA = 0.04. To test the significant difference between the two standardized estimates, the researcher conducted moderation analysis with ‘critical ratios for differences’ option available in AMOS 22.0. Table 5.9 indicates that the significant effects of system quality, information quality, reward, and virtual interactivity on customer engagement do not vary across male and female samples.

**Table 5.9 Path comparison results across gender**

S.No.	Hypotheses	Male		Female		Test results
		$\beta$	$p$ -values	$\beta$	$p$ -values	
H6a	System quality- customer engagement	0.34	0.000	0.33	0.000	Not supported
H6b	Information quality- customer engagement	0.30	0.000	0.31	0.000	Not supported
H6c	Reward- customer engagement	0.22	0.000	0.23	0.000	Not supported
H6d	Virtual interactivity- customer engagement	0.28	0.000	0.27	0.000	Not supported

As presented in Table 5.9, the significant effect of system quality on customer engagement does not vary across gender (male:  $\beta = 0.34$ ,  $p < 0.001$ ; female:  $\beta = 0.33$ ,  $p < 0.001$ ), therefore, not supporting H6a. The significant effect of information quality on customer engagement also does not vary much across gender (male:  $\beta = 0.30$ ,  $p < 0.001$ ; female:  $\beta = 0.31$ ,  $p < 0.001$ ), not supporting H6b. Similarly, the significant effect of reward on customer engagement remains invariant across the two genders (male:  $\beta = 0.22$ ,  $p < 0.001$ ; female:  $\beta = 0.23$ ,  $p < 0.001$ ), failing to accept H6c. Finally, a significant positive relationship between virtual interactivity and customer engagement for both the genders was same (male:  $\beta = 0.28$ ,  $p < 0.001$ ; female:  $\beta = 0.27$ ,  $p < 0.001$ ), resulting in a lack of support for H6d.

## 5.6. CONCLUSION

The prime objective of this chapter was to present the findings from the empirical assessment of various hypotheses proposed in Chapter 3. This chapter explains the data analysis procedures employed by this study. It further presents the results obtained from the quantitative methodology used in this research. Initially, demographic statistics of sample respondents is described, followed by a summary of measurement and structural model. The next chapter

(Chapter 6) discusses the key findings and puts forth the theoretical and managerial implications of this study along with its limitations and scope for future research.



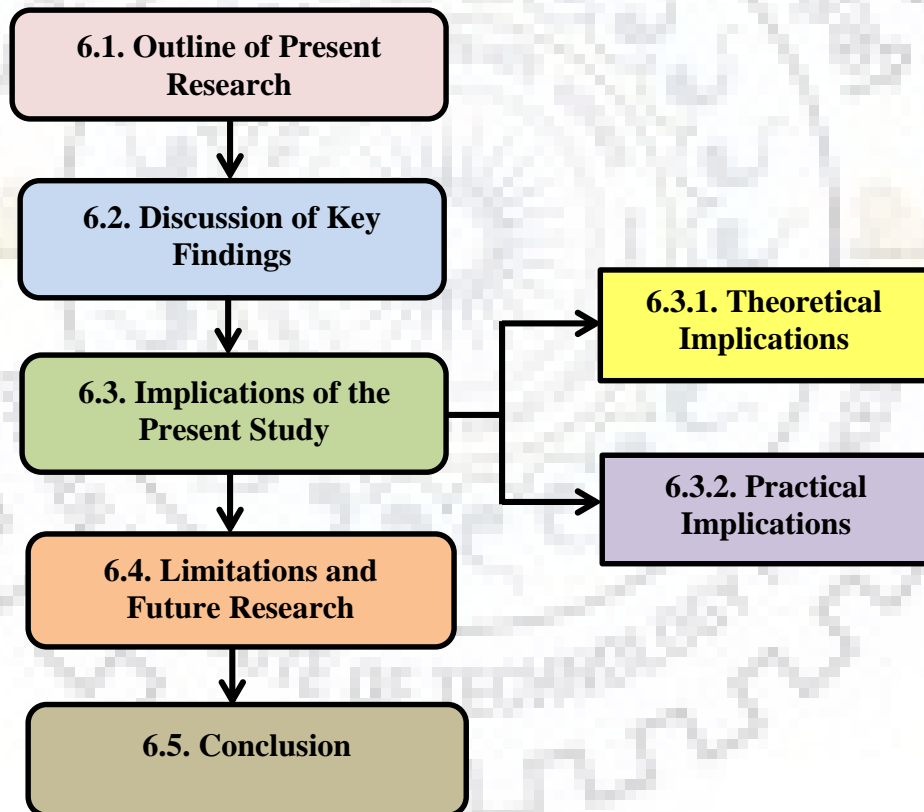
## Chapter 6

### DISCUSSION, IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

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This chapter presents an overview of the research done in the present study and discusses key findings and major research contributions. The chapter also discusses the theoretical and managerial implications of this study. Furthermore, certain limitations acknowledged by this study are presented and recommendations for future research in the area of customer engagement are highlighted. The overall structure of this chapter is presented in Figure 6.1.

**Figure 6.1 Structure of Chapter 6**





## 6.1. OUTLINE OF PRESENT RESEARCH

This research has attempted to address some key gaps identified in the extant research on customer engagement. To address the recognized gaps, this study traces the journey of customer engagement as a research field in the area of marketing and investigates customer engagement in the context of online brand communities while employing an Indian students' sample. By doing so, a novel model for engaging customers with online brand communities has been proposed and empirically validated (Figure 3.1).

An outline of the present study is as follows:

1. An extensive literature review on customer engagement and a brief review of customer engagement in online brand communities have been carried out. The literature review (Chapter 2) is based on various classification schemes viz. - the distribution of published articles across different countries, journals, contexts and time periods; conceptual versus empirical studies, conceptualizations, dimensions, antecedents and consequences of customer engagement proposed by previous studies. The literature review chapter also presents a set of theoretical perspectives through which customer engagement has been explored so far. Based on the comprehensive review, several gaps were recognized which assisted in framing research questions and objectives of this study. The literature review also summarizes few important issues that future research should explore.
2. Pursuing the objectives of this study, a research model has been proposed in this study to assess customer engagement in online brand communities (Chapter 3). This research model comprises of four key characteristics of online brand communities (information quality, system quality, virtual interactivity, and rewards) as the antecedents of customer engagement and brand loyalty as an outcome of customer engagement. The model also takes into account the moderating role of gender on the proposed relationships between key characteristics of online brand communities and customer engagement.
3. To empirically examine the proposed research model, a self-administered questionnaire survey was conducted among students of four selected universities in Delhi, India (Chapter 4). Apart from empirically validating the antecedents and consequences of customer engagement, the moderating role of gender on the proposed relationships was investigated (Chapter 5). However, the statistical analysis of this study revealed that the

impact of all the four characteristics of online brand communities on customer engagement is consistent across male and female members, signifying that gender gap in the online environment is declining.

## **6.2. DISCUSSION OF KEY FINDINGS**

The study has two major objectives. The first objective is to develop a conceptual model of customer engagement in online brand communities. This objective has been accomplished with the help of an extensive literature review of 66 customer engagement articles. Various antecedents and outcomes of customer engagement have been identified. The literature review also highlighted various gaps that merit further scholarly attention. On the basis of the identified gaps, a conceptual model has been proposed that incorporates four variables- the key characteristics of online brand communities (system quality, information quality, rewards, and virtual interactivity) as the antecedents to customer engagement. The model also proposes brand loyalty as the outcome variable of customer engagement. The proposed model also suggested gender as a moderating variable in the relationship between online brand community characteristics and customer engagement.

The second set of key objectives of this study deals with empirically examining the proposed path relationships in the conceptual model by studying the effect of key characteristics of online brand communities on customer engagement; examine the effect of customer engagement on brand loyalty; and finally examine the moderating role of gender on customer engagement. To achieve the second set of objectives, six hypotheses were formulated and tested. The hypotheses findings are discussed below:

With five of the six proposed hypotheses [System quality-Customer engagement (H1); Information quality-Customer engagement (H2); Reward-Customer engagement (H3); Virtual interactivity -Customer engagement (H4); Customer engagement-Brand loyalty (H5)] accepted; the results demonstrate some valuable findings. At the cumulative level, each of the characteristics positively influences customer engagement, with system quality, information quality and virtual interactivity bearing the strongest influence. Customer engagement also has a strong positive impact on brand loyalty. This study also conducted a moderation analysis which revealed that the impact of all the four characteristics of online brand communities on customer engagement is consistent across male and female members. The four characteristics of online brand communities are expected to facilitate the attainment of higher and/or more favorable

customer engagement with focal online brand communities, which are conducive to building a more loyal customer base.

Hypothesis 1 and 2 proposed that system quality and information quality will positively affect customer engagement. The results supported this proposition and found that better the system quality and information quality higher will be the customer engagement. When customers read and work with the information disseminated on a company's brand community, they begin to understand the brand/company at the same time form emotions that create a positive attitude towards the brand community. Similarly, an online brand community that presents accurate and complete information in an easy-to-interpret form is perceived to be more effective in function and helpfulness and, therefore, is seen to play a great role in engaging members with it. A higher system quality makes an online brand community enjoyable and easy to use for a customer. The results of H1 and H2 support prior studies (e.g., Barreda et al., 2015 and Zheng et al., 2013) who argue that system and information quality must be at the forefront of a company's online brand community design and development. The findings further align with previous research which propounds that customer are engaged with an online brand community if it presents not only the information customers need but also presents information in pleasurable, satisfying, and fascinating manner so that it captures and holds one's attention (O'Brien and Toms, 2008; Shin et al., 2013).

Hypothesis 3 suggested a positive association between reward and customer engagement. Results after conducting the statistical analysis supported this proposition. When a customer's online participation and contribution is acknowledged by an organization, he/she feels a strong connection and devotion towards the online brand community. Reward, both monetary and non-monetary, drive customers to prefer a particular brand community among the competitive set, engage with and contribute in such communities during co-creative activities. These results empirically validate some prior studies that have theoretically proposed rewards to be positively associated with the level of customers' engagement (Wirtz et al., 2013; Dessart et al., 2015). These results further support the researchers' claims that rewards serve as an influential driving force that impel a customer to participate in an online brand community (Dessart et al., 2015; Van Doorn et al., 2010). Therefore, organizations are suggested to provide its active online brand community members with motivating rewards, which will enhance customers' intrinsic motivation to engage with the online brand community.

Hypothesis 4 proposed a positively effect of virtual interactivity on customer engagement. The results supported this proposition and it was found that virtual interactivity as a key characteristic of online brand communities positively influences customer engagement. When consumers perceive an online brand community to be responsive and are aware that an online brand community reciprocates to their inquiries as well as those of other members' inquiries, it increases the chances of a customer being engaged with that brand community. These results are in sync with the prior studies that place virtual interactivity as an important antecedent to customer engagement (e.g., Cyr et al., 2009; Mollen and Wilson, 2010). To magnify virtual interactivity, organizations ought to make information interaction effective by providing convenient navigational tools, tracking members' past browsing activities and recommending topic or highlighting the most favored topics currently being conferred. This inspires customers to engage and contribute.

This research also studied the ensuing impact of customer engagement on brand loyalty as proposed in hypothesis 5. The results of this study revealed that customer engagement has a significant positive influence on brand loyalty, which confirms the previous research (Bowden, 2009; Brodie et al., 2011; Gummerus et al., 2012; Van Doorn et al. 2010) through empirical validation. The functionality of online brand communities has progressed markedly in the past decade, enabling a range of customer/brand interactions (e.g. private messaging, public posting), thus providing increasing ways for marketers to induce, or develop, customer engagement and strengthen brand loyalty. In today's highly networked era, the development of a loyal consumer base is a real organizational challenge. The present findings suggest the adoption of customer engagement approach at the strategic level to build and maintain brand loyalty.

Exploring the gender role helps marketers to determine if they need specific gender based strategies for men and women. This study examined the role of gender as a moderating variable in the relationship between online brand community characteristics and customer engagement [H6(a), H6(b), H6(c), H6(d)]. The results revealed the existence of no significant gender effect on the tested relationships; thus suggesting that gender-based strategies for online brand community consumers are not expected to optimize customer engagement and loyalty. Gender's unsupported moderating effect implies that both male and female members tend to interact with brand communities that help customers enhance their brand community related experience by focusing on all the four characteristics of online brand communities.

These findings are contradictory to the earlier studies which contend that system quality is considered as a significant factor by men for blogging whereas content quality is viewed as important by females (Lu and Lee, 2010), and that males report information quality higher than females (Lim and Kwon, 2010). Majority of these studies used a different or partially different sample than this study's student sample, which could be a reason for the non-moderation effect revealed by this study. However, the results of this study are consistent with some recent studies that found no significant gender differences in online contexts particularly regarding information quality and system quality and, therefore, support the argument of the diminishing online gender gaps. Ladhari and Leclerc (2013) did not find any difference across genders while examining information quality, web design, and e-tailers' responsiveness. Zha et al. (2014) detected no significant differences for gender in terms of system quality, information quality, and interactivity via affinity. Likewise, the results of this study are consistent with Nadeem et al. (2015) who revealed that gender gap in the online environment is declining.

### **6.3. IMPLICATIONS OF THE PRESENT STUDY**

This study contributes to the existing body of knowledge on customer engagement by providing direction to both academics and practitioners towards engaging customers with online brand communities and eventually enhancing brand loyalty. Some of the key implications of this study on theoretical as well as practical terms are discussed below:

#### **6.3.1. Theoretical Implications**

The theoretical implications of this study are detailed as below:

1. Review of the customer engagement literature done in this study is the first systematic literature review in this domain which provides a detailed understanding of the current state of customer engagement research on a single platform and offers a comprehensive information to researchers with respect to the avenues for future research. Various classification schemes in terms of countries, journals, contexts and time periods etc. highlighted by the literature review provide useful information regarding the current stand of customer engagement research and the direction which this research area is heading to. The literature review is an important contribution of this work as it will help researchers determine the present state of customer engagement research, facilitate future studies, and assist in identifying and selecting appropriate channels for their customer



engagement manuscripts. The important future research avenues highlighted by the literature review include the fact that customer engagement is an emerging area and requires more attention due to its practical relevance.

2. In today's highly networked era, the development of a loyal consumer base is a real organizational challenge. The present findings suggest the adoption of a managerial consumer engagement orientation to build and maintain brand loyalty. By validating brand loyalty as a customer engagement consequence, this study has empirically validated and supported previous conceptual findings.
3. Given that prior studies have not studied the joint impact of the four key characteristics (system quality, information quality, reward, and virtual interactivity) of online brand communities on customer engagement, this study has proposed and empirically validated a novel model to conclusively investigate whether and how the unique characteristics (the building blocks) of online brand communities predict customer engagement. By proposing and validating a novel model, this study acts as a stepping-stone in affording enhanced understanding of the role of key characteristics of online brand communities on customer engagement as the findings of this study can be applied to different social media platforms such as Twitter, LinkedIn, and YouTube etc., which are appropriate for academic research.
4. Third, while gender represents a widely documented variable in the literature, scant research has investigated the existence of gender effects with respect to customer engagement. This study thus examined the potentially moderating role of gender on the relationship between proposed antecedents- and customer engagement to determine whether marketers would benefit from adopting gender-specific segmentation strategies in online brand communities and, therefore, makes significant contribution to the marketing literature as prior studies have not enthusiastically investigated the effects of gender differences on customer engagement in online brand communities.
5. While existing research has viewed customer engagement predominantly from relationship marketing or S-D logic perspectives (Vargo and Lusch, 2017), other relevant consumer behavior theories, including those that acknowledge individual- environment interaction, individual and/or social identity, also present useful perspectives for explaining, or predicting, customer engagement. This study adopted stimulus-organism-

response theory to study customer engagement in online brand communities. The adopted stimulus-organism-response theory to customer engagement serves to further academic understanding of the proposed conceptual association.

6. Research on customer engagement has been largely conducted in developed countries like the USA, Australia and New Zealand (Islam and Rahman, 2016b); there is a dearth of studies on this concept in developing countries, like India. This work also contributes to the engagement literature through the conduction of its empirical study in a non-Western (Indian) setting, thereby affording an initial understanding of online brand community-based customer engagement in a collectivist, emerging economy context. Although developing economies like India represent the most rapidly expanding markets with significant business (growth) opportunities for multinational companies, scant customer engagement research has been undertaken in emerging, and/or bottom-of-the-pyramid economic contexts, as addressed in this study.

### **6.3.2. Managerial Implications**

Beyond the stated theoretical implications, this study offers a number of implications for marketing practitioners. The key managerial implications of this study are detailed as below:

1. In the era of big data, one-to-one marketing and user-generated (including peer-to-peer) content, customer engagement becomes increasingly important for the strategic enhancement of consumer brand commitment and loyalty. This study highlights how marketers can capitalize on online brand communities, by focusing their investments on the key characteristics that are predicted by this study to optimize customers' ensuing engagement, and brand loyalty.
2. In today's social media dominated environment, information quality, system quality, reward, and virtual interactivity play an important role in fostering customer motivations to join, and/or stay with, particular online brand communities. The model proposed by this study offers marketing practitioners the opportunity to develop online brand community-focused strategies based on their key characteristics. It is essential for online brand community practitioners to focus on all the four characteristics of brand communities considering the broad acceptance of online community characteristics as crucial factors to determine customer engagement. In order to create customer



engagement in online brand communities, organizations should make vigorous efforts to trigger virtual interactivity, and provide quality information, offer reward and consistently upgrade system quality.

3. Organizations must seek to provide appropriate, reliable and timely information, generate talking points and encourage customers to interact with the brand and other customers; let customers ask questions, submit queries, and share opinions and knowledge. Marketers need to configure quality control mechanisms to ensure the quality of information. Marketers should intermittently monitor, filter and remove content that is from biased or unreliable sources.
4. Online community practitioners could ask members to rate the helpfulness of information and highlight some most helpful content/posts. This could assist other customers/members to better understand the topic and take the discussion on track and could assist organizations in vigorously pursuing ways to amplify virtual interactivity. It is recommended that marketing practitioners, in conjunction with information and communication managers, develop online brand community-based chat-rooms that offer high levels of interactivity, rich, customized information available in real time, and/or entertainment to its members. Initiating a dialogue with its online community members to create value by expediting customer to share their community specific experiences, problems and solutions. Organizations can also implement customized functions for particular members by creating and directing favored topics identified by tracking down member activities. This approach can cultivate a sense of belonging for brand community members and ultimately attract and retain customers in their online brand communities.
5. To upgrade system quality and magnify virtual interactivity, organizations should make information search effective by providing convenient navigational tools, tracking members' past browsing activities and recommending topic or highlighting the most favored topics currently being conferred. This may bring eye-catching effects to attract customers to engage. Marketers should provide a more organized way to present opinions that could allow customers to comprehensively read, write and follow the discussions on the brand community. This may also inspire more customers to engage and contribute. Marketers can communicate brief but enjoyable interactive quizzes to their customers who follow their brand communities. Such information can assist in personalizing the

content and promotions; it may also amplify interactivity; and may lessen the impediments in content creation. This exercise may also reinforce customer engagement, thereby, enhancing the overall effectiveness of online brand communities.

6. Practitioners should acknowledge customer contributions in brand communities and should escalate the visibility of active customers in the community. It is also advised to regularly offer personalized benefits to customers, including competitions, online sweepstakes, special offers, virtual medals, referrals, and access to particular (consumer status-related, e.g. VIP) information, etc. Organizations should also keep track of particular consumers' contribution history, and adopt related badges of recognition, such as '*best contributor*' or '*star member*,' which may be made public to the broader community with the recipient's consent. Marketers may also wish to devise tailored offers for particular OBC members, including by communicating with relevant online brand community members via individual (e.g. private) messages addressing particular topics of the individual's interest that are traceable, for example, by examining the individual's online brand community browsing patterns. The development of targeted content will be conducive to the development of consumers' sense of online brand community-related belonging, stimulating their future commitment to that community and brand loyalty. Firms will thus be able to expedite the development of customer engagement, and subsequently, brand loyalty.
7. Many organizations have successfully used online brand communities to improve their market position. For example, Coca-Cola has 90 million Facebook followers, Pepsi has 2.5 million Twitter followers, and Nike has 22 million Facebook followers (Kelley and Alden, 2016). However, many firms are also struggling to capitalize on their online brand communities. Therefore, to improve online brand communities' return on investment (ROI), organizations require in-depth insight into consumer motivations for engaging with their online brand communities. This study identified the key role of key characteristics of online brand communities as key drivers (motivating factors) for the development of customer engagement. Practitioners also ought to understand the development of customer engagement not only with their own brands' community, but also with those of competing organizations, which can be achieved through marketing research (e.g. by conducting netnographic research of relevant competitors' online

brand communities. Relatedly, marketers need to understand the dynamics characterizing customers' engagement shifts, such as a mere follower transitioning into a highly engaged member, or vice versa.

#### **6.4. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

Despite its contributions and implications, like any other study, this study is also subjected to a number of limitations, which render scope for further research in studying customer engagement phenomenon. Below are mentioned some limitations that future studies could seek to overcome:

1. This study employed only Facebook as the context to empirically validate the model; thus little is known about the observed dynamics on other social networking sites (e.g. Twitter, etc.). For example, LinkedIn's more utilitarian nature may reveal differing findings to those attained for the Facebook community studied. Further studies are, therefore, suggested to incorporate other social networking platforms like Twitter and Pinterest etc. to come up with more diverse understanding and results.
2. This study is not specific to any particular category of goods, services, industries or a brand; it is general in nature in a way that it considers online brand communities from diverse industry and product categories. This study can be extended in specific industry- (e.g. consumer electronics, fashion, etc.), or brand-related (e.g. service, B2B or luxury brand-based) online brand community contexts so as to validate an adequate level of external validity to the current study. Focusing on one specific brand community would help to remove possible impacts of different characteristics such as interface designs etc. in different brand communities.
3. The four characteristics of online communities used in this study may not reflect the entire community characteristics, further customer motivations of engagement in online brand communities need to be explored.
4. This study investigates the impact of customer engagement on brand loyalty; there is a need to investigate the alternative model to check the reverse influence of brand loyalty on customer engagement. Because of the iterative nature of this relationship, some constructs (e.g., customer satisfaction, brand loyalty, brand experience etc.) acting as an outcome of customer engagement, may create a feedback loop and subsequently act as antecedents to customer engagement which, therefore, warrants further investigation.

5. The study context is limited to a single (Indian) cultural and economic context; thus a cross-cultural study could be conducted that empirically examines the effect of culture on customer engagement.
6. This study is cross-sectional in nature, conducted at a particular point in time. However, given the dynamic nature of customer engagement, the undertaking of longitudinal research is recommended to further explore the development of online brand community-based customer engagement over time.
7. The moderating effect of some individual factors (e.g., customer experience and trust with the brand community) as well as personality factors (e.g., Big five personality traits) may better explain the mechanism of customer engagement in online brand communities.
8. This study targeted only students. A non-student sample (e.g., employees of various professions) could be incorporated so as to study a diverse group of customers. While incorporating a non-student sample, the proposed model could be examined across different age groups that may benefit the brand managers (Sharma and Dasgupta, 2009; 2011), because consumer attitude varies across different age groups (Sharma, 2015).
9. Alternate theoretical frames (other than stimulus-organism-response theory) may be applied to customer engagement in online brand communities, including resource exchange theory, social practice theory and social penetration theory, which may provide unique findings that can be compared and contrasted to those attained in this study.

## **6.5. CONCLUSION**

This chapter has provided a summary of the research work carried out by this study as discussed in previous chapters. It has also highlighted, with respect to the present research, major findings, key implications (for both academics and practitioners), limitations, and scope for future research. The efforts made in this study for undertaking an extensive systematic literature review and in developing the customer engagement model are expected to work as a catalyst in developing research interest of other scholars in further exploration of the emerging domain of customer engagement. It is expected that academics, practitioners, decision makers, and managers will benefit from the present research, especially those dealing with customer engagement evoked through online brand communities.

## References

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1. Aaker, D.A. (1996), "Measuring brand equity across products and markets", *California Management Review*, Vol. 38 No. 3, pp. 102-120.
2. Aeron, H., Kumar, A. and Janakiraman, M. (2010), "Application of data mining techniques for customer lifetime value parameters: A review", *International journal of business information systems*, Vol. 6 No. 4, pp. 514-529.
3. Aeron, H., Kumar, A. and Moorthy, J. (2012), "Data mining framework for customer lifetime value-based segmentation", *Journal of Database Marketing & Customer Strategy Management*, Vol. 19 No. 1, pp. 17-30.
4. Ahn, T., Ryu, S. and Han, I. (2007), "The impact of Web quality and playfulness on user acceptance of online retailing", *Information & Management*, Vol. 44 No. 3, pp. 263-275.
5. Ali, J. and Akbar, M. (2015), "Pupils' satisfaction with school mid-day meal program: A comparative study of centralized versus decentralized kitchens", *British Food Journal*, Vol. 117 No. 7, pp. 1933-1948.
6. Anderson, E.W. and Mittal, V. (2000), "Strengthening the satisfaction-profit chain", *Journal of Service Research*, Vol. 3 No. 2, pp. 107-120.
7. Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: A review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, p. 411-423.
8. Anderson, R.E. and Srinivasan, S.S. (2003), "E-satisfaction and e-loyalty: A contingency framework", *Psychology & Marketing*, Vol. 20 No. 2, pp. 123-138.
9. Ángeles Oviedo-García, M., Muñoz-Expósito, M., Castellanos-Verdugo, M. and Sancho-Mejías, M. (2014), "Metric proposal for customer engagement in Facebook", *Journal of Research in Interactive Marketing*, Vol. 8 No. 4, pp. 327-344.
10. Animesh, A., Pinsonneault, A., Yang, S.B. and Oh, W. (2011), "An odyssey into virtual worlds: exploring the impacts of technological and spatial environments on intention to purchase virtual products", *MIS Quarterly*, Vol. 5 No. 2, pp. 789-810.
11. Antony, J. and Banuelas, R. (2002), "Key ingredients for the effective implementation of Six Sigma program", *Measuring Business Excellence*, Vol. 6 No. 4, pp. 20-27.



12. Armstrong, J.S. and Overton, T.S. (1977), "Estimating nonresponse bias in mail surveys", *Journal of Marketing Research*, Vol. 14 No. 3, pp. 396-402.
13. Ashley, C. and Tuten, T. (2015), "Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement", *Psychology & Marketing*, Vol. 32 No. 1, pp. 15-27.
14. Ashley, C., Noble, S.M., Donthu, N. and Lemon, K.N. (2011), "Why customers won't relate: obstacles to relationship marketing engagement", *Journal of Business Research*, Vol. 64 No. 7, pp. 749-756.
15. Auh, S., Bell, S.J., McLeod, C.S. and Shih, E. (2007), "Co-production and customer loyalty in financial services", *Journal of Retailing*, Vol. 83 No. 3, pp. 359-370.
16. Babbie, E.R. (1989), *The Practice of Social Research*, Wadsworth Publishing Company.
17. Bagozzi, R.P. (2011), "Measurement and Meaning in Information Systems and Organizational Research: Methodological and Philosophical Foundations", *MIS Quarterly*, Vol. 35 No. 2, pp. 261-292.
18. Bagozzi, R.P., and Dholakia, U.M. (2002), "Intentional social action in virtual communities", *Journal of Interactive Marketing*, Vol. 16 No. 2, pp. 2-21.
19. Bahl, S. and Wali, O.P. (2014), "Perceived significance of information security governance to predict the information security service quality in software service industry", *Information Management & Computer Security*, Vol. 22 No. 1, pp. 2-23.
20. Baki, B., Dereli, T. and Baykasoğlu, A. (2004), "An investigation on the readiness of Turkish companies for enterprise resource management", *Journal of Manufacturing Technology Management*, Vol. 15 No. 1, pp. 50-56.
21. Baldus, B.J., Voorhees, C. and Calantone, R. (2015), "Online brand community engagement: scale development and validation", *Journal of Business Research*, Vol. 68 No. 5, pp. 978-985.
22. Banyte, J., Tarutė, A. and Taujanskytė, I. (2014), "Customer engagement into value creation: Determining factors and relations with loyalty", *Engineering Economics*, Vol. 25 No. 5, pp. 568-577.
23. Barkholz, D. and Rehtin, M. (2012), *Net worth: GM's paid-ad pullback highlights a key question for auto makers: Can Facebook sell cars?* Automot News (1 and 42, May 21).

24. Barreda, A.A., Bilgihan, A., Nusair, K. and Okumus, F. (2015), "Generating brand awareness in Online Social Networks", *Computers in Human Behavior*, Vol. 50 No. 1, pp. 600-609.
25. Barry, H., Bacon, M.K. and Child, I.L. (1957), "A cross-cultural survey of some sex differences in socialization", *Journal of Abnormal and Social Psychology*, Vol. 55 No. 1, pp. 327-332.
26. Baumöl, U., Hollebeek, L. and Jung, R. (2016), "Dynamics of customer interaction on social media platforms", *Electronic Markets*, Vol. 26 No. 3, pp. 199-202.
27. Baykasoğlu, A. and Gölcük, İ. (2017), "Development of a two-phase structural model for evaluating ERP critical success factors along with a case study", *Computers & Industrial Engineering*, Vol. 106 No. 1, 256-274
28. Bentler, P.M. (1990) "Comparative fit indexes in structural models", *Psychological Bulletin*, Vol. 107 No. 2, pp. 238-246.
29. Bentler, P.M. and Bonett, D.G. (1980), "Significance tests and goodness of fit in the analysis of covariance structures", *Psychological Bulletin*, Vol. 88 No. 3, pp. 588.
30. Bhatti, N., Bouch, A. and Kuchinsky, A. (2000), "Integrating user-perceived quality into web server design", *Computer Networks*, Vol. 33 No. 1, pp. 1-16.
31. Bickart, B. and Schindler, R.M. (2001), "Internet forum as influential sources of consumer information", *Journal of Interactive Marketing*, Vol. 15 No. 3, pp. 31-40.
32. Bitner, M.J. (1992), "Servicescapes: The impact of physical surroundings on customers and employees", *Journal of Marketing*, Vol. 56 No. 1, pp. 57-71.
33. Bitter, S., and Grabner-Kräuter, S. (2016), "Consequences of customer engagement behavior: when negative Facebook posts have positive effects", *Electronic Markets*, Vo. 26 No. 3, pp. 219-231.



34. Bijmolt, T.H., Leeflang, P.S., Block, F., Eisenbeiss, M., Hardie, B.G., Lemmens, A. and Saffert, P. (2010), “Analytics for customer engagement”, *Journal of Service Research*, Vol. 13 No. 3, pp. 341-356.
35. Bolton, R.N. (2011), “Customer engagement: opportunities and challenges for organizations”, *Journal of Service Research*, Vol. 14 No. 3, pp. 272-274.
36. Bowden, J. (2009), “The process of customer engagement: A conceptual framework”, *Journal of Marketing Theory and Practice*, Vol. 17 No. 1, pp. 63-74.
37. Bowden, J. (2009a), “Customer engagement: a framework for assessing customer-brand relationships: The case of the restaurant industry”, *Journal of Hospitality Marketing & Management*, Vol. 18 No. 6, pp. 574-596.
38. Bowden, J. L., Gabbott, M. and Naumann, K. (2015), “Service relationships and the customer disengagement–engagement conundrum”, *Journal of Marketing Management*, Vol. 31 No. 7-8, pp. 774-806.
39. Braun, C., Batt, V., Bruhn, M. and Hadwich, K. (2016), “Differentiating customer engaging behavior by targeted benefits—an empirical study”, *Journal of Consumer Marketing*, Vol. 33 No. 7, pp. 528-538.
40. Breidbach, C., Brodie, R. and Hollebeek, L.D. (2014), “Beyond virtuality: from engagement platforms to engagement ecosystems”, *Managing Service Quality*, Vol. 24 No. 6, pp. 592-611.
41. BrightLocal (2014), “Local Consumer Review Survey”, Available at: <http://searchengineland.com/88-consumers-trust-online-reviews-much-personalrecommendations-195803> (Accessed April, 2016).
42. Briner, R.B., Denyer, D., and Rousseau, D.M. (2009), “Evidence-based management: concept cleanup time?”, *Academy of Management Perspectives*, Vol. 23 No. 4, pp. 19-32.
43. Brodie, R.J., Hollebeek, L.D., Juric, B. and Ilic, A. (2011), “Customer engagement: Conceptual domain, fundamental propositions, and implications for research”, *Journal of Service Research*, Vol. 14 No. 3, pp. 252-271.

44. Brodie, R.J., Ilic, A., Juric, B. and Hollebeek, L.D. (2013), “Customer engagement in a virtual brand community: An exploratory analysis”, *Journal of Business Research*, Vol. 66 No. 1, pp. 105- 04.
45. Bryman, A. and Bell, E. (2015), *Business research methods*, Oxford University Press: USA.
46. Burbary, K. (2011), *Facebook demographics revisited—2011 Statistics*, available at <http://socialmediatoday.com/kenburbary/276356/facebook-demographics-revisited-2011-statistics> (Retrieved January, 2016).
47. Büyüközkan, G., Baykasoğlu, A. and Dereli, T. (2007), “Integration of Internet and web-based tools in new product development process”, *Production Planning and Control*, Vol. 18 No. 1, pp. 44-53.
48. Byrne, B.M. (2009), “Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument”, *International Journal of Testing*, Vol. 1 No. 1, pp. 55-86.
49. Cabiddu, F., De Carlo, M. and Piccoli, G. (2014), “Social media affordances: enabling customer engagement”, *Annals of Tourism Research*, Vol. 48 No. 1, pp. 175-192.
50. Calder, B. J., Malthouse, E. C. and Schaedel, U. (2009), “An experimental study of the relationship between online engagement and advertising effectiveness”, *Journal of Interactive Marketing*, Vol. 23 No. 4, pp. 321-331.
51. Calefato, F., Lanubile, F. and Novielli, N. (2015), “The role of social media in affective trust building in customer–supplier relationships”, *Electronic Commerce Research*, Vol. 15 No. 4, pp. 453-482.
52. Cambra-Fierro, J.J., Melero-Polo, I. and Vázquez-Carrasco, R. (2013), “Customer engagement: innovation in non-technical marketing processes”, *Innovation*, Vol. 15 No. 3, pp. 326-336.

53. Cambra-Fierro, J.J, Melero-Polo, I. and Sese, F.J. (2015), "Can complaint-handling efforts promote customer engagement?", *Service Business*, Vol. 10 No. 4, pp. 847-866.
54. Cambra-Fierro, J., Melero-Polo, I. and Vázquez-Carrasco, R. (2014), "The role of frontline employees in customer engagement", *Revista Española de Investigación en Marketing ESIC*, Vol. 18 No. 2, pp. 67-77.
55. Campbell, D.T. and Fiske, D.W. (1959), "Convergent and discriminant validation by the multitrait-multimethod matrix", *Psychological Bulletin*, Vol. 56 No. 2, pp. 81-105.
56. Cao, M., Zhang, Q. and Seydel, J. (2005), "B2C e-commerce web site quality: an empirical examination", *Industrial Management & Data Systems*, Vol. 105 No. 5, pp. 645-661.
57. Carter, T. (2008), "Customer engagement and behavioral considerations", *Journal of Strategic Marketing*, Vol. 16 No. 1, pp. 21-26.
58. Casalo, L., Flavian, C. and Guinaliu, M. (2007), "The impact of participation in virtual brand communities on consumer trust and loyalty", *Online Information Review*, Vol. 31 No. 6, pp. 775-792.
59. Chan, F.T. and Chong, A.Y.L. (2013), "Analysis of the determinants of consumers' m-commerce usage activities", *Online Information Review*, Vol. 37 No. 3, pp. 443-461.
60. Chan, F.T., Chong, A.Y.L. and Zhou, L. (2012), "An empirical investigation of factors affecting e-collaboration diffusion in SMEs", *International Journal of Production Economics*, Vol. 138 No. 2, pp. 329-344.
61. Chan, Y., and Ngai, E.W.T. (2011), "Conceptualising electronic word of mouth activity: an input-process-output perspective", *Marketing Intelligence & Planning*, Vol. 29 No. 5, pp. 488-516.
62. Chang, C. (2006), "The influence of masculinity and femininity in different advertising processing contexts: An accessibility perspective", *Sex Roles*, Vol. 55 No. 5, pp. 345-356.
63. Chathoth, P. K., Ungson, G. R., Altinay, L., Chan, E. S., Harrington, R. and Okumus, F. (2014), "Barriers affecting organisational adoption of higher order customer engagement in tourism service interactions", *Tourism Management*, Vol. 42 No. 1, pp. 181-193.
64. Chen, S.Y. and Macredie, R. (2010), "Web-based interaction: A review of three important human factors", *International Journal of Information Management*, Vol. 30 No. 5, pp. 379-387.

65. Chaudhuri, A. and Holbrook, M. (2001), "The chain of effect from brand trust and brand affect to brand performance: The role of brand loyalty", *Journal of Marketing*, Vol. 65 No. 1, pp. 81-93.
66. Cheung, C.M. and Lee, M.K. (2012), "What drives consumers to spread electronic word of mouth in online consumer-opinion platforms", *Decision support systems*, Vol. 53 No. 1, pp. 218-225.
67. Cheung, C.M., Shen, X.L., Lee, Z.W. and Chan, T.K. (2015), "Promoting sales of online games through customer engagement", *Electronic Commerce Research and Applications*, Vol. 14, pp. 241-250.
68. Chin, W.W. and Newsted, P.R. (1995), "Research report-The importance of specification in causal modeling: the case of end-user computing satisfaction", *Information Systems Research*, Vol. 6 No. 1, pp. 73-81.
69. Chow, C.W., Deng, F.J. and Ho, J.L. (2000), "The openness of knowledge sharing within organizations: A comparative study of the United States and the People's Republic of China", *Journal of Management Accounting Research*, Vol. 12 No. 1, pp. 65-95.
70. Chu, S.C. and Choi, S.C. (2011), "Electronic word-of-mouth in social networking sites: A cross-cultural study of the United States and China", *Journal of Global Marketing*, Vol. 24 No. 3, pp. 263-281.
71. Churchill, G.A. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs", *Journal of Marketing Research*, Vol. 16 No. 1, pp. 64-73.
72. Churchill, G.A. Jr. (1995), *Marketing Research: Methodological Foundations*, Fort Worth, TX: Dryden Press.
73. Claffey, E. and Brady, M. (2014), "A model of consumer engagement in a virtual customer environment", *Journal of Customer Behaviour*, Vol. 13 No. 4, pp. 325-346.
74. Comrey, A.L. and Lee, H.B. (1992), *A First Course in Factor Analysis (2nd edn.)*, Lawrence Earlbaum Associates: Hillsdale, NJ.
75. Cossío-Silva, F.J., Revilla-Camacho, M.Á., Vega-Vázquez, M. and Palacios-Florencio, B. (2016), "Value co-creation and customer loyalty", *Journal of Business Research*, Vol. 69 No. 5, pp. 1621-1625.
76. Cova, B. (1997), "Community and consumption", *European Journal of Marketing*, Vol. 31 No. 3-4, pp. 297-316.

77. Cova, B. and Pace, S. (2006), "Brand community of convenience products: new forms of customer empowerment—the case my Nutella-The Community". *European Journal of Marketing*, Vol. 40 No. 9-10, pp. 1087-1105.
78. Creswell, J.W. (2009), *Research design: Qualitative and mixed methods approaches*, Sage Publications, London and Thousand Oaks.
79. Cyr, D., Head, M., Larios, H. and Pan, B. (2009), "Exploring human images in website design: a multi-method approach", *MIS quarterly*, Vol. 3 No. 2, pp. 539-566.
80. Das, K. (2009), "Relationship marketing research (1994-2006) an academic literature review and classification", *Marketing Intelligence & Planning*, Vol. 27 No. 3, pp.3 26-363.
81. Das, G. (2014), "Impacts of retail brand personality and self-congruity on store loyalty: the moderating role of gender", *Journal of Retailing and Consumer Services*, Vol. 21 No. 2, pp. 130-138.
82. De Valck, K., Van Bruggen, G.H. and Wierenga, B. (2009), "Virtual communities: A marketing perspective", *Decision Support Systems*, Vol. 47 No. 3, pp. 185-203.
83. De Vries, N. J. and Carlson, J. (2014), "Examining the drivers and brand performance implications of customer engagement with brands in the social media environment", *Journal of Brand Management*, Vol. 21 No. 6, pp. 495-515.
84. DeLone, W.H. and McLean, E.R. (2003), "The DeLone and McLean model of information systems success: a ten-year update", *Journal of Management Information Systems*, Vol. 19 No. 4, pp. 9-30.
85. Dessart, L. (2017), "Social media engagement: a model of antecedents and relational outcomes", *Journal of Marketing Management*, Vol. 33 No. 5-6, pp. 275-399.
86. Dessart, L., Veloutsou, C. and Thomas, A. (2015), "Consumer engagement in online brand communities: A social media perspective", *Journal of Product & Brand Management*, Vol. 24 No. 1, pp. 28-42.
87. Dholakia, U.M., Bagozzi, R. P. and Pearo, L.K. (2004), "A social influence model of consumer participation in network-and small-group-based virtual communities", *International Journal of Research in Marketing*, Vol. 21 No. 3, pp. 241-263.
88. Dholakia, U.M., Blazevic, V., Wiertz, C. and Algesheimer, R. (2009), "Communal service delivery how customers benefit from participation in firm-hosted virtual P3 communities", *Journal of Service Research*, Vol. 12 No. 2, pp. 208-226.

89. Di Pietro, L., Di Virgilio, F. and Pantano, E. (2012), "Social network for the choice of tourist destination: Attitude and behavioral intention", *Journal of Hospitality and Tourism Technology*, Vol. 3 No. 1, pp. 60-76.
90. Dijkmans, C., Kerkhof, P. and Beukeboom, C.J. (2015), "A stage to engage: social media use and corporate reputation", *Tourism Management*, Vol. 47 No. 1, pp. 58-67.
91. Donovan, R.J. and Rositer, J.R. (1982), "Store atmosphere: An environmental psychology approach", *Journal of Retailing*, Vol. 58 No. 1, pp. 34-57.
92. Duncan, T. and Moriarty, S.E. (1998), "A communication-based marketing model for managing relationships", *Journal of Marketing*, Vol. 62 No. 2, pp. 1-13.
93. Dwivedi, A. (2015), "A higher-order model of consumer brand engagement and its impact on loyalty intentions", *Journal of Retailing and Consumer Services*, Vol. 24 No. 2, pp. 100-109.
94. Eppler, M.J. (2006), *Managing information quality: increasing the value of information in knowledge-intensive products and processes*. Springer Science & Business Media.
95. Eroglu, S.A., Machleit, K.A. and Davis, L.M. (2001), "Atmospheric qualities of online retailing: A conceptual model and implications", *Journal of Business Research*, Vol. 54 No. 2, pp. 177-184.
96. Eroglu, S.A., Machleit, K.A. and Davis, L.M. (2003), "Empirical testing of a model of online store atmospherics and shopper responses", *Psychology & Marketing*, Vol. 20 No. 2, pp. 139-150.
97. Evanschitzky, H., Gopalkrishnan R., Plassmann, H., Niessing, J. and Meffert, H. (2006), "The relative strength of affective commitment in securing loyalty in service relationships", *Journal of Business Research*, Vol. 59 No. 12, pp. 1207-1213.
98. Fatma, M. and Rahman, Z. (2015), "Consumer perspective on CSR literature review and future research agenda", *Management Research Review*, Vol. 38 No. 2, pp.195-216.
99. Fernandes, T., and Esteves, F. (2016), "Customer engagement and loyalty: A comparative study between service contexts", *Services Marketing Quarterly*, Vol. 37 No. 2, pp. 125-139.
100. Fetscherin, M. and Usunier, J.C. (2012), "Corporate branding: An interdisciplinary literature review", *European Journal of Marketing*, Vol. 46 No. 5, pp. 733-753.
101. Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.



102. Fournier, S. (1998), "Consumers and their brands: Developing relationship theory in consumer research", *Journal of Consumer Research*, Vol. 24 No. 4, pp. 343-353.
103. France, C., Merrilees, B. and Miller, D. (2015), "Customer brand co-creation: A conceptual model", *Marketing Intelligence & Planning*, Vol. 33 No. 6, pp. 848-864.
104. Franzak, F., Makarem, S. and Jae, H. (2014), "Design benefits, emotional responses, and brand engagement", *Journal of Product & Brand Management*, Vol. 23 No. 1, pp. 16-23.
105. Fuller, G. (2010), "Refining virtual co-creation from a consumer perspective", *California Management Review*, Vol. 52 No. 2, pp. 98-122.
106. Füller, J., Bartl, M., Ernst, H. and Mühlbacher, H. (2006), "Community based innovation: How to integrate members of virtual communities into new product development", *Electronic Commerce Research*, Vol. 6 No. 1, pp. 57-73.
107. Gallup. (2014), "State of the American Consumer: Insights for Business Leaders." Accessed in April 2015, from <http://products.gallup.com/171722/state-american-consumer.aspx>
108. Gambetti, R.C. and Graffigna, G. (2010), "The concept of engagement-a systematic analysis of the ongoing marketing debate", *International Journal of Market Research*, Vol. 52, pp. 801-826.
109. Gambetti, R.C., Graffigna, G. and Biraghi, S. (2012), "The grounded theory approach to consumer-brand engagement", *International Journal of Market Research*, Vol. 54 No. 5, pp. 659-687.
110. Ghasemaghaei, M. and Hassanein, K. (2015), "Online information quality and consumer satisfaction: The moderating roles of contextual factors-A meta-analysis", *Information & Management*, Vol. 52 No. 8, pp. 965-98.
111. Gill, J. and Johnson, P. (2002), *Research methods for managers, 3rd ed.*, Sage Publications, London.
112. Gorla, N., Somers, T.M. and Wong, B. (2010), "Organizational impact of system quality, information quality, and service quality", *The Journal of Strategic Information Systems*, Vol. 19 No. 3, pp.207-228.
113. Gould, S.J. and Weil, C. E. (1991), "Gift-giving roles and gender self-concepts", *Sex Roles*, Vol. 24 No. 9-10, pp. 617-637.



114. Goyal, P., Rahman, Z. and Kazmi, A.A. (2013), "Corporate sustainability performance and firm performance research", *Management Decision*, Vol. 51 No. 2, pp. 361-379.
115. Green, S.B. (1991), "How many subjects does it take to do a regression analysis", *Multivariate Behavioral Research*, Vol. 26 No. 3, pp. 499-510.
116. Groeger, L., Moroko, L. and Hollebeek, L. (2016), "Capturing value from non-paying consumers' engagement behaviours: Field evidence and development of a theoretical model", *Journal of Strategic Marketing*, Vol. 24 No. 3-4, pp. 190-209.
117. Gu, B., Konana, P., Rajagopalan, B. and Chen, H.W.M. (2007), "Competition among virtual communities and user valuation: The case of investing-related communities", *Information Systems Research*, Vol. 18 No. 1, pp. 68-85.
118. Gummerus, J., Liljander, V., Weman, E. and Pihlström, M. (2012), "Customer engagement in a Facebook brand community", *Management Research Review*, Vol. 35 No. 9, pp. 857-877.
119. Gupta, D.D. and Sharma, A. (2009), "Customer loyalty and approach of service providers: An empirical study of mobile airtime service industry in India", *Services Marketing Quarterly*, Vol. 30 No. 4, pp. 342-364.
120. Gupta, D.D. and Utkarsh (2014), "Assessing the website effectiveness of top ten tourist attracting nations", *Information Technology & Tourism*, Vol. 14 No. 2, pp. 151-175.
121. Habibi, M.R., Laroche, M. and Richard, M.O. (2014), "The roles of brand community and community engagement in building brand trust on social media", *Computers in Human Behavior*, Vol. 37 No. 1, pp. 152-161.
122. Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2010), *Multivariate Data Analysis: A Global Perspective (Vol. 7)*, Pearson Prentice Hall, Upper Saddle River, NJ.
123. Hallowell, R. (1996), "The relationships of customer satisfaction, customer loyalty and profitability: An empirical study", *International Journal of Service Industry Management*, Vol. 7 No. 4, pp. 27-42.
124. Hammedi, W., Kandampully, J., Zhang, T.T. and Bouquiaux, L. (2015), "Online customer engagement: creating social environments through brand community constellations", *Journal of Service Management*, Vol. 26 No. 5, pp. 777-806.

125. Harmeling, C.M., Moffett, J.W., Arnold, M.J. and Carlson, B.D. (2016), "Toward a theory of customer engagement marketing", *Journal of the Academy of Marketing Science*, Vol. 45 No. 3, pp. 312-335.
126. Harwood, T. and Garry, T. (2015), "An investigation into gamification as a customer engagement experience environment", *Journal of Services Marketing*, Vol. 29 No. 6-7, pp. 533-546.
127. Hayes, A. (2005), *Statistical methods for communication science*. Mahwah, NJ: Lawrence, Erlbaum Associates, Inc.
128. Higgins, E.T. (2006), "Value from hedonic experience and engagement", *Psychological Review*, Vol. 113 No. 3, pp. 439-460.
129. Hing Yee Tsang, J. and Antony, J. (2001), "Total quality management in UK service organisations: some key findings from a survey", *Managing Service Quality: An International Journal*, Vol. 11 No. 2, pp. 132-141.
130. Ho, C.I. and Lee, P.C. (2015), "Are blogs still effective to maintain customer relationships? An empirical study on the travel industry", *Journal of Hospitality and Tourism Technology*, Vol. 6 No. 1, pp. 5-25.
131. Hodeghatta, U.R. and Sahney, S. (2016), "Understanding Twitter as an e-WOM", *Journal of Systems and Information Technology*, Vol. 18 No. 1, pp. 89-115.
132. Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*, CA Sage, Newbury Park.
133. Hollebeek, L.D. (2011a), "Demystifying customer engagement: Exploring the loyalty nexus", *Journal of Marketing Management*, Vol. 27 No. 1, pp. 785-807.
134. Hollebeek, L.D. (2011b), "Exploring customer brand engagement: definition and themes", *Journal of Strategic Marketing*, Vol. 19 No. 7, pp. 555-573.

135. Hollebeek, L.D. (2013), "The customer engagement/value interface: an exploratory investigation", *Australasian Marketing Journal*, Vol. 21 No. 1, pp. 17-24.
136. Hollebeek, L.D. (2017), "Individual-level cultural consumer engagement styles: Conceptualization, propositions, and implications", *International Marketing Review*, Forthcoming.
137. Hollebeek, L.D. and Brodie, R.J. (2016), "Non-monetary social and network value: Understanding the effects of non-paying customers in new media", *Journal of Strategic Marketing*, Vol. 24 No. 3-4, pp. 169-174.
138. Hollebeek, L.D., Conduit, J. and Brodie, R.J. (2016), "Strategic drivers, anticipated & unanticipated outcomes of customer engagement", *Journal of Marketing Management*, Vol. 32 No. 5-6, pp. 393-398.
139. Hollebeek, L.D. and Chen, T., (2014), "Exploring positively- versus negatively-valenced brand engagement: a conceptual model", *Journal of Product & Brand Management*, Vol. 23 No. 1, pp. 62-74.
140. Hollebeek, L.D., Srivastava, R.K. and Chen, T. (2016a), "S-D logic-informed customer engagement: Integrative framework, revised fundamental propositions, and application to CRM", *Journal of the Academy of Marketing Science*, Forthcoming, DOI: 10.1007/s11747-016-0494-5.
141. Hollebeek, L.D., Glynn, M.S. and Brodie, R.J. (2014), "Consumer brand engagement in social media: Conceptualization, scale development and validation", *Journal of Interactive Marketing*, Vol. 28 No. 1, pp. 149-165.
142. Hu, L.T. and Bentler, P.M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives", *Structural Equation Modeling: A Multidisciplinary Journal*, Vol. 6 No. 1, pp. 1-55.
143. Huizingh, E. (2000), "The content and design of web sites: An empirical study", *Information & Management*, Vol. 37 No. 3, pp. 123-34.

144. Hwang, J., Han, H. and Kim, S. (2015), "How can employees engage customers? Application of social penetration theory to the full-service restaurant industry by gender", *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 6, pp. 1117-1134.
145. Imbens, G.W. and Lancaster, T. (1996), "Efficient estimation and stratified sampling", *Journal of Econometrics*, Vol. 74 No. 2, pp. 289-318.
146. Isaid, E.N. and Faisal, M.N. (2015), "Consumers' repurchase intention towards a mobile phone brand in Qatar: An exploratory study utilizing theory of reasoned action framework", *Global Business Review*, Vol. 16 No. 4, pp. 594-608.
147. Islam, J. and Rahman, Z. (2016), "Linking customer engagement to trust and word of mouth on Facebook brand communities: An empirical study", *Journal of Internet Commerce*, Vol. 15 No. 1, pp. 40-58.
148. Islam, J. and Rahman, Z. (2016a), "Examining the effects of brand love and brand image on customer engagement: An empirical study of fashion apparel brands", *Journal of Global Fashion Marketing*, Vol. 7 No. 1, pp. 45-59.
149. Islam, J. and Rahman, Z. (2016b), "The transpiring journey of customer engagement research in marketing: A systematic review of the past decade", *Management Decision*, Vol. 54 No. 8, pp. 2008-2034.
150. Islam, J. and Rahman, Z. (2017), "The impact of online brand community characteristics on customer engagement: An application of stimulus-organism-response paradigm", *Telematics and Informatics*, Vol. 34 No. 4, pp. 96-109.
151. Islam, J., Rahman, Z. and Hollebeek, L. (2017), "Personality factors as predictors of online consumer engagement: An empirical investigation", *Marketing Intelligence & Planning*, Vol. 35 No. 4, pp. 510-528.
152. Islam, J., Rahman, Z. and Hollebeek, L. (2017a), "Consumer engagement in online brand communities: A solicitation of congruity theory", *Internet Research*, Forthcoming.

153. Jaakkola, E. and Alexander, M. (2014), "The role of customer engagement behavior in value co-creation a service system perspective", *Journal of Service Research*, Vol. 14 No. 3, pp. 1-15.
154. Jacoby, J. (2002), "Stimulus-organism-response reconsidered: An evolutionary step in modeling (consumer) behavior", *Journal of Consumer Psychology*, Vol. 12 No. 1, pp. 51-57.
155. Jacoby, J. and Kyner, D. (1973), "Brand loyalty versus repeat purchase behavior", *Journal of Marketing Research*, Vol. 10 No. 1, pp. 1-9.
156. Jain, S. (2017), *101 latest social media facts and stats from India 2016*. Social Media & Digital Marketing Blog: [http:// www.soravjain.com/social-media-facts-and-stats-india-2016](http://www.soravjain.com/social-media-facts-and-stats-india-2016), (Retrieved on November, 2016).
157. Jang, H., Olfman, L., Ko, I., Koh, J. and Kim, K. (2008), "The influence of on-line brand community characteristics on community commitment and brand loyalty", *International Journal of Electronic Commerce*, Vol. 12 No. 3, pp. 57-80.
158. Javornik, A. and Mandelli, A. (2012), "Behavioral perspectives of customer engagement: an exploratory study of customer engagement with three Swiss FMCG brands", *Journal of Database Marketing & Customer Strategy Management*, Vol. 19 No. 4, pp. 300-310.
159. Jeppesen, L.B. and Frederiksen, L. (2006), "Why do users contribute to firm-hosted user communities? The case of computer-controlled music instruments", *Organization science*, Vol. 17 No. 1, pp. 45-63.
160. Jiang, Z., Chan, J., Tan, B.C. and Chua, W.S. (2010), "Effects of interactivity on website involvement and purchase intention", *Journal of the Association for Information Systems*, Vol. 11 No. 1, pp. 34-41.
161. Jin, W., Sun, Y., Wang, N., and Zhang, X. (2017), "Why users purchase virtual products in MMORPG? An integrative perspective of social presence and user engagement", *Internet Research*, Vol. 27, No. 2, pp. 408-427.

162. Kahle, L.R. and Homer, P. (1985), "Androgyny and midday mastication: Do real men eat quiche?", *Advances in Consumer Research*, Vol. 12 No. 1, pp. 242-246.
163. Kaltcheva, V., Patino, A., V. Laric, M., A. Pitta, D. and Imparato, N. (2014), "Customers' relational models as determinants of customer engagement value", *Journal of Product & Brand Management*, Vol. 23 No. 1, pp. 55-61.
164. Kamboj, S. and Rahman, Z. (2016), "The influence of user participation in social media based brand communities on brand loyalty: Age and gender as moderators", *Journal of Brand Management*, Vol. 23 No. 6, pp. 679-700.
165. Kang, M., Shin, D.H. and Gong, T. (2016), "The role of personalization, engagement, and trust in online communities", *Information Technology & People*, Vol. 29 No. 3, pp. 580-596.
166. Kass, R.A. and Tinsley, H.E.A. (1979), "Factor analysis", *Journal of Leisure Research*, Vol. 11 No. 1, pp. 120-138.
167. Kelley, J.B. and Alden, D.L. (2016), "Online brand community: through the eyes of Self-Determination Theory", *Internet Research*, Vol. 26 No. 4, pp. 790-808.
168. Kerlinger, F.N. (1986), *Foundations of Behavioral Research*, New York: Wadsworth Publishing.
169. Khan, H., Talib, F., and Faisal, M.N. (2015). An analysis of the barriers to the proliferation of M-Commerce in Qatar: A relationship modeling approach. *Journal of Systems and Information Technology*, Vol. 17 No. 1, pp. 54-81.
170. Khan, M.N. and Faisal, M.N. (2001), "Mobile commerce: the next dimension", *IIMB Management Review*, Vol. 13 No. 4, pp. 7-18.
171. Khan, I., Rahman, Z. and Fatma, M. (2016), "The role of customer brand engagement and brand experience in online banking", *International Journal of Bank Marketing*, Vol. 34 No. 7, pp. 1025-1041.

172. Kline, T.J. (2005), *Psychological testing: A practical approach to design and evaluation*, Sage Publications.
173. Knox, S.D. and Denison, T.J. (2000), "Store loyalty: Its impact on retail revenue. An empirical study of purchasing behaviour in the UK", *Journal of Retailing and Consumer Services*, Vol. 7 No. 1, pp. 33-45.
174. Ko, H., Cho, C.H. and Roberts, M.S. (2005), "Internet user and gratifications: A structural equation model of interactive advertising", *Journal of Advertising*, Vol. 34 No. 2, pp. 57-70.
175. Kolyesnikova, N., Dodd, T.H. and Wilcox, J.B. (2009), "Gender as a moderator of reciprocal consumer behavior", *Journal of Consumer Marketing*, Vol. 26 No. 3, pp. 200-213.
176. Kozinets, R.V. (1999), "E-tribalized marketing?: The strategic implications of virtual communities of consumption", *European Management Journal*, Vol. 17 No. 3, pp. 252-264.
177. Kozinets, R.V., De Valck, K., Wojnicki, A.C. and Wilner, S.J. (2010), "Networked narratives: understanding word-of-mouth marketing in online communities", *Journal of Marketing*, Vol. 74 No. 2, pp. 71-89.
178. Kumar, V. (2015), "Evolution of marketing as a discipline: what has happened and what to lookout for", *Journal of Marketing*, Vol. 79 No. 1, pp. 1-9.
179. Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T. and Tillmanns, S. (2010), "Undervalued or overvalued customers: capturing total customer engagement value", *Journal of Service Research*, Vol. 13 No. 3, pp. 297-310.
180. Kursunluoglu, E. (2011), "Customer service effects on customer satisfaction and customer loyalty: A field research in shopping centers in Izmir City-Turkey", *International Journal of Business and Social Science*, Vol. 2 No. 17, pp. 52-59.
181. Ladhari, R. and Leclerc, A. (2013), "Building loyalty with online financial services customers: Is there a gender difference?", *Journal of Retailing and Consumer Services*, Vol. 20 No. 6, pp. 560-569.



182. Lambe, C.J., Wittmann, C.M. and Spekman, R.E. (2001), "Social exchange theory and research on business-to-business relational exchange", *Journal of Business-to-Business Marketing*, Vol. 8 No. 3, pp. 1-36.
183. Lee, T. (2005), "The impact of perceptions of interactivity on customer trust and transaction intentions in mobile commerce", *Journal of Electronic Commerce Research*, Vol. 6 No. 3, pp. 165-180.
184. Lee, T.R., Hsu, Y.H., Huang, P.N. and Muhos, M. (2014), "Key factors and skills in writing blog articles", *International Journal of Management and Enterprise Development*, Vol. 13 No. 3-4, pp. 231-247.
185. Lenhart, A. and Madden, M. (2007), *Teens, privacy, & online social networks. Pew Internet and American Life Project Report*. Retrieved from [http://www.pewinternet.org/pdfs/PIP\\_Teens\\_Privacy\\_SNS\\_Report\\_Final.pdf](http://www.pewinternet.org/pdfs/PIP_Teens_Privacy_SNS_Report_Final.pdf)
186. Lim, S. and Kwon, N. (2010), "Gender differences in information behavior concerning Wikipedia, an unorthodox information source", *Library & Information Science Research*, Vol. 32 No. 3, pp. 212-220.
187. Lipsman, A., Mudd, G., Rich, M. and Bruich, S. (2012), "The power of like: how brands reach (and influence) fans through social-media marketing", *Journal of Advertising Research*, Vol. 52 No. 1, pp. 40-52.
188. Liu, F., Li, J., Mizerski, D. and Soh, H. (2012), "Self-congruity, brand attitude, and brand loyalty: a study on luxury brands", *European Journal of Marketing*, Vol. 46 No. 7-8, pp. 922-937.
189. Liu, Y., Li, Y., Zhang, H. and Huang, W.W. (2017), "Gender differences in information quality of virtual communities: A study from an expectation-perception perspective", *Personality and Individual Differences*, Vol. 104 No. 1, pp. 224-229.
190. Loureiro, S. and Ribeiro, L. (2011), "The effect of atmosphere on emotions and online shopping intention: Age differentiation", In *Australian and New Zealand Marketing Academy Conference, Perth, Australia*.

191. Lu, H.P. and Lee, M.R. (2010), "Demographic differences and the antecedents of blog stickiness", *Online Information Review*, Vol. 34 No. 1, pp. 21-38.
192. Lynch, J. and Ariely, D. (2000), "Wine online: Search costs affect competition on price quality and distribution", *Marketing Science*, Vol. 19 No. 1, pp. 83-103.
193. Ma, M. and Agarwal, R. (2007), "Through a glass darkly: Information technology design, identity verification, and knowledge contribution in online communities", *Information Systems Research*, Vol. 18 No. 1, pp. 42-67.
194. Madhavaram, S., Badrinarayanan, V. and McDonald, R.E. (2005), "Integrated marketing communication (IMC) and brand identity as critical components of brand equity strategy: A conceptual framework and research propositions", *Journal of Advertising*, Vol. 34 No. 4, pp. 69-80.
195. Madupu, V., and Cooley, D.O. (2010), "Cross-cultural differences in online brand communities: An exploratory study of Indian and American online brand communities", *Journal of International Consumer Marketing*, Vol. 22 No. 4, pp. 363-375.
196. Mahdavi, I., Mahdavi-Amiri, N., Heidarzade, A. and Nourifar, R. (2008), "Designing a model of fuzzy TOPSIS in multiple criteria decision making", *Applied Mathematics and Computation*, Vol. 206 No. 2, pp. 607-617.
197. Mahrous, A.A. and Abdelmaaboud, A.K. (2017), "Antecedents of participation in online brand communities and their purchasing behavior consequences", *Service Business*, Vol. 11 No. 2, pp. 229-251.
198. Maity, M. and Gupta, S. (2016), "Mediating effect of loyalty program membership on the relationship between advertising effectiveness and brand loyalty", *Journal of Marketing Theory and Practice*, Vol. 24 No. 4, pp. 462-481.
199. Malhotra, N.K. (2004), *Marketing Research and SPSS 11.0 Package*. Pearson Education: USA.

200. Malhotra, N.K. (2015), *Essentials of marketing research: A hands-on orientation*. Essex: Pearson.
201. Malhotra, N.K. and Das, S. (2010), *Marketing Research: An Applied Orientation*, 5th ed., Pearson Prentice Hall.
202. Malthouse, E.C., Haenlein, M., Skiera, B., Wege, E. and Zhang, M. (2013), “Managing customer relationships in the social media era: introducing the social CRM house”, *Journal of Interactive Marketing*, Vol. 27 No. 4, pp. 270-280.
203. Manchanda, P., Packard, G. and Pattabhiramaiah, A. (2015), “Social dollars: The economic impact of customer participation in a firm-sponsored online customer community”, *Marketing Science*, Vol. 34 No. 3, pp. 367-387.
204. Marbach, J., Lages, C. R. and Nunan, D. (2016), “Who are you and what do you value? Investigating the role of personality traits and customer-perceived value in online customer engagement”, *Journal of Marketing Management*, Vol. 32 No. 5-6, pp. 1-24.
205. Mason, E.S. and Mudrack, P.E. (1996), “Gender and ethical orientation: A test of gender and occupational socialization theories”, *Journal of Business Ethics*, Vol. 15 No. 6, pp. 599-604.
206. McAlexander, J.H., Schouten, J.W. and Koenig, H.F. (2002), “Building brand community”, *Journal of Marketing*, Vol. 66 No. 1, pp. 38-54.
207. McKinney, V., Yoon, K. and Zahedi, F.M. (2002), “The measurement of web-customer satisfaction: An expectation and disconfirmation approach”, *Information Systems Research*, Vol. 13 No. 3, pp. 296-315.
208. McKnight, D.H., Kacmar, C.J. and Choudhury, V. (2004), “Dispositional trust and distrust distinctions in predicting high-and low-risk internet expert advice site perceptions”, *e-Service Journal*, Vol. 3 No. 2, pp. 35-58.

209. McMillan, S.J. and Hwang, J.S. (2002), “Measures of perceived interactivity: An exploration of the role of direction of communication, user control, and time in shaping perceptions of interactivity”, *Journal of Advertising*, Vol. 31 No. 3, pp. 29-42.
210. Mehrabian, A. and Russell, J. (1974), *An Approach to Environmental Psychology*. MIT Press: Cambridge. MA.
211. Merrilees, B. and Fry, M. (2003), “E-trust: the influence of perceived interactivity on e-retailing users”, *Marketing Intelligence and Planning*, Vol. 21 No. 2, pp. 123-128.
212. MHRD. (2016), [http://mhrd.gov.in/higher\\_education](http://mhrd.gov.in/higher_education), accessed in December, 2015.
213. Mladen, K. and Silva, M. (2001), “The international publication productivity of Latin American countries in the economics and business administration fields”, *Scientometrics*, Vol. 51 No. 2, pp. 381-394.
214. Mollen, A. and Wilson, H. (2010), “Engagement, telepresence and interactivity in online consumer experience: reconciling scholastic and managerial perspectives”, *Journal of Business Research*, Vol. 63 No. 9, pp. 919-925.
215. MSI - Marketing Science Institute (2012), *Research Priorities 2012-2014*, Marketing Science Institute, Boston, MA.
216. MSI - Marketing Science Institute (2014), *Research Priorities 2014-2016*, Marketing Science Institute, Boston, MA.
217. MSI - Marketing Science Institute (2016), *Research Priorities 2016-2018*, Marketing Science Institute, Boston, MA.
218. Muniz, A.T. and O’Guinn, T.C. (2001), “Brand community”, *Journal of Consumer Research*, Vol. 27 No. 4, pp. 412-432.
219. Nadeem, W., D. Andreini, J.S. and Laukkanen, T. (2015), “Engaging consumers online through websites and social media: A gender study of Italian generation Y clothing consumers”, *International Journal of Information Management*, Vol. 35 No. 4, pp. 432-42.

220. Naidoo, V. and Hollebeek, L.D. (2016), "Higher education brand alliances: Investigating consumers' dual-degree purchase intentions", *Journal of Business Research*, Vol. 69 No. 8, pp. 3113-3121.
221. Nelson-Field, K., and J. Taylor. (2012), *Facebook fans: A fan for life?* Admap, pp. 25–27. Accessed on June, 2015 from:  
[http://www.warc.com/Content/ContentViewer.aspx?ID=b44fad20-c6f7-4d44-aac2-da9ea7cf8383&MasterContentRef=b44fad20-c6f7-4d44-aac2-da9ea7cf8383&Campaign=admap\\_may12&utm\\_campaign=admap\\_may12](http://www.warc.com/Content/ContentViewer.aspx?ID=b44fad20-c6f7-4d44-aac2-da9ea7cf8383&MasterContentRef=b44fad20-c6f7-4d44-aac2-da9ea7cf8383&Campaign=admap_may12&utm_campaign=admap_may12)
222. Nelson, R.R., Todd, P.A. and Wixom, B.H. (2005), "Antecedents of information and system quality: An empirical examination within the context of data warehousing", *Journal of Management Information Systems*, Vol. 21 No. 4, pp. 199-235.
223. Neuman, W.L. (2006), *Social research methods: qualitative and quantitative approaches*, (6<sup>th</sup> ed.). Pearson Education: Boston.
224. Newman, A. and Sheikh, A. Z. (2012), "Organizational rewards and employee commitment: a Chinese study", *Journal of Managerial Psychology*, Vol. 27 No. 1, pp. 71-89.
225. Neyman, J. (1934), "On the two different aspects of the representative method: the method of stratified sampling and the method of purposive selection", *Journal of the Royal Statistical Society*, Vol. 97 No. 4, pp. 558-625.
226. Ngai, E.W. (2005), "Customer relationship management research (1992-2002): An academic literature review and classification", *Marketing Intelligence & Planning*, Vol. 23 No. 6, pp. 582-605.
227. Nunnally, J. (1978), *Psychometric Theory*, 2nd ed., McGraw Hill, New York, NY.
228. O'Brien, H. and Toms, E. (2008), "What is user engagement? A conceptual framework for defining user engagement with technology", *Journal of American Society for Information Science and Technology*, Vol. 59 No. 6, pp. 938-955.
229. O'Brien, I.M., Jarvis, W., and Soutar, G.N. (2015), "Integrating social issues and customer engagement to drive loyalty in a service organization", *Journal of Services Marketing*, Vol. 29 No. 6-7, pp. 547-559.
230. Oliver, R. L. (1999), "Whence consumer loyalty?", *Journal of Marketing*, Vol. 63 No. 1, pp. 33-44.

231. Olney, T. J., Holbrook, M.B. and Batra, R. (1991), "Consumer responses to advertising: The effects of ad content, emotions, and attitude toward the ad on viewing time", *Journal of Consumer Research*, Vol. 17 No. 4, pp. 440-453.
232. Ou, C.X. and Sia, C.L. (2010), "Consumer trust and distrust: An issue of website design", *International Journal of Human-Computer Studies*, Vol. 68 No. 1, pp. 913-934.
233. Parasuraman, A., Zeithaml, V.A. and Malhotra, A. (2005), "ES-QUAL: A multiple-item scale for assessing electronic service quality", *Journal of Service Research*, Vol. 7 No. 3, pp. 213-233.
234. Parboteeah, D.V., Valacich, J.S. and Wells, J.D. (2009), "The influence of website characteristics on a consumer's urge to buy impulsively", *Information Systems Research*, Vol. 20 No. 1, pp. 60-78.
235. Pavlou, P.A., Liang, H. and Xue, Y. (2007), "Understanding and mitigating uncertainty in online exchange relationships: A principal-agent perspective", *MIS Quarterly*, Vol. 31 No. 1, pp. 105-136.
236. Pihl, C. (2013), "When customers create the ad and sell it- a value network approach", *Journal of Global Scholars of Marketing Science*, Vol. 23 No. 1, pp. 127-143.
237. Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: A critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
238. Ramaswamy, V. (2009), "Leading the transformation to co-creation of value", *Strategy & Leadership*, Vol. 37 No. 2, pp. 32-37.
239. Palan, K.M. (2001), "Gender identity in consumer behavior research: A literature review and research agenda", *Academy of Marketing Science Review*, Vol. 10 No. 1, pp. 1-31.
240. Pandey, S.K. and Wali, O.P. (2010), "Retailers Behavior towards Salience of Mature Product Brands-An Empirical Study on a Major Cola Brand in a Developing Economy", *IIMS Journal of Management Science*, Vol. 2 No. 1, pp. 46-53.
241. Popovič, A., Hackney, R., Coelho, P.S. and Jaklič, J. (2012), "Towards business intelligence systems success: Effects of maturity and culture on analytical decision making", *Decision Support Systems*, Vol. 54 No. 1, pp. 729-739.

242. Rathore, A.K., Ilavarasan, P.V. and Dwivedi, Y.K. (2016), "Social media content and product co-creation: an emerging paradigm", *Journal of Enterprise Information Management*, Vol. 29 No. 1, pp. 7-18.
243. Reichheld, F.F. (1993), "Loyalty-based management", *Harvard Business Review*, Vol. 71 No. 2, pp. 64-73.
244. Reinartz, W., Haenlein, M. and Henseler, J. (2009), "An empirical comparison of the efficacy of covariance-based and variance-based SEM", *International Journal of Research in Marketing*, Vol. 26 No. 4, pp. 332-344.
245. Reitz, A.R. (2012), *Online consumer engagement: Understanding the antecedents and outcomes* (Doctoral dissertation, Colorado State University. Libraries).
246. Richard, M., Chebat, J., Yang, Z. and Putrevu, S. (2010), "A proposed model of online consumer behavior: Assessing the role of gender", *Journal of Business Research*, Vol. 63 No. 9, pp. 926-934.
247. Roberts, C. and Alpert, F. (2010), "Total customer engagement: designing and aligning key strategic elements to achieve growth", *Journal of Product & Brand Management*, Vol. 19 No. 3, pp. 198-209.
248. Roblyer, M.D., McDaniel, M., Webb, M., Herman, J., and Witty, J.V. (2010), "Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites", *The Internet and Higher Education*, Vol. 13 No. 3, pp. 134-140.
249. Rohm, A., Kaltcheva, V.D. and Milne, G.R. (2013), "A mixed-method approach to examining brand-consumer interactions driven by social media", *Journal of Research in Interactive Marketing*, Vol. 7 No. 4, pp. 295-311.
250. Rose, S., Clark, M., Samouel, P. and Hair, N. (2012), "Online customer experience in e-retailing: an empirical model of antecedents and outcomes", *Journal of Retailing*, Vol. 88 No. 2, pp. 308-322.
251. Ruane, L. and Wallace, E. (2013), "Generation Y females online: Insights from brand narratives", *Qualitative Market Research: An International Journal*, Vol. 16 No. 3, pp. 315-335.



252. Sahney, S. (2015), "Critical success factors in online retail—an application of quality function deployment and interpretive structural modeling", *International Journal of Business and Information*, Vol. 3 No. 1, pp. 144-163
253. Sahney, S., Ghosh, K. and Shrivastava, A. (2013), "Conceptualizing consumer "trust" in online buying behaviour: an empirical inquiry and model development in Indian context", *Journal of Asia Business Studies*, Vol. 7 No. 3, pp. 278-298.
254. Sarkar, A. and Sreejesh, S. (2014), "Examination of the roles played by brand love and jealousy in shaping customer engagement", *Journal of Product & Brand Management*, Vol. 23 No. 1, pp. 24-32.
255. Sashi, C.M. (2012), "Customer engagement, buyer-seller relationships, and social media", *Management Decision*, Vol. 50 No. 2, pp. 253-272.
256. Sasser, S., Kilgour, M. and Hollebeek, L.D. (2014), Marketing in an interactive world: The evolving nature of communication processes using social media, In: Lertwachera, K. and Ayanso, A. (Eds.), *Harnessing the Power of Social Media and Web Analytics: Techniques, Tools, and Applications*, IGI Global, 29-52.
257. Saunders, M., Lewis, P. and Thornhill, A. (2012), *Research Methods for Business Students*, 6th ed. Prentice Hall, London.
258. Sawhney, M., Verona, G. and Prandelli, E. (2005), "Collaborating to create: the internet as a platform for customer engagement in product innovation", *Journal of Interactive Marketing*, Vol. 19 No. 4, pp. 4-17.
259. Schibrowsky, J.A., Peltier, J.W. and Nill, A. (2007), "The state of internet marketing research: A review of the literature and future research directions", *European Journal of Marketing*, Vol. 41 No. 7-8, pp.722-733.
260. Schivinski, B., Christodoulides, G. and Dabrowski, D. (2016), "Measuring consumers' engagement with brand-related social-media content", *Journal of Advertising Research*, Vol. 56 No. 1, pp. 64-80.
261. Schumacker, R.E. and Lomax, R.G. (2004), *A beginner's guide to structural equation modeling*, Psychology Press.
262. Serenko, A., Turel, O., and Yol, S. (2006), "Moderating roles of user demographics in the American customer satisfaction model within the context of mobile services", *Journal of Information Technology Management*, Vol. 17 No. 4, pp. 20-32.

263. Sharma, R.W. (2015), "Communicating across age-groups: variance in consumer attitudes from teenagers to adults", *Young Consumers*, Vol. 16 No. 3, pp. 348-362.
264. Sharma, R.W. and Dasgupta, P. (2009), "Marketing to children: a planning framework", *Young Consumers*, Vol. 10 No. 3, pp. 180-187.
265. Sharma, R.W. and Dasgupta, P. (2011), "Impact of Model Imagery and Product Information on Brand Attitude and Purchase Intention across Age Groups," *Journal of Marketing Trends*, Vol. 1, May.
266. Shin, J.I., Chung, K.H., Oh, J.S. and Lee, C.W. (2013), "The effect of site quality on repurchase intention in internet shopping through mediating variables: The case of university students in South Korea", *International Journal of Information Management*, Vol. 33 No. 3, pp. 453-463.
267. Shoemaker, S. and Lewis, R.C. (1999), "Customer loyalty: the future of hospitality marketing", *International Journal of Hospitality Management*, Vol. 18 No. 1, pp. 345-370.
268. Sirianni, N.J., Bitner, M.J., Brown, S.W. and Mandel, N. (2013), "Branded service encounters: strategically aligning employee behavior with the brand positioning", *Journal of Marketing* Vol. 77 No. 6, pp.108-123.
269. So, K.K.F., King, C. and Sparks, B.A. (2014a), "Customer engagement with tourism brands scale development and validation", *Journal of Hospitality & Tourism Research*, Vol. 38 No. 3, pp. 304-329.
270. So, K.K.F., King, C., Sparks, B. A. and Wang, Y. (2014b), "The role of customer engagement in building consumer loyalty to tourism brands", *Journal of Travel Research*, Vol. 55 No. 1, pp. 64-78.
271. So, K.K.F., King, C., Sparks, B.A., Wang, Y. and Hall, S. (2015), "Enhancing customer relationships with retail service brands: the role of customer engagement", *Journal of Service Management*, Vol. 27 No. 2, pp. 170-193.
272. Social Media Today. (2015), *Why do we follow brands on social media?* Available in: <http://www.socialmediatoday.com/social-business/asadali/2015-05-24/business-socialmedia-Infographic>, (accessed April 13, 2016).
273. Sprott, D., Czellar, S. and Spangenberg, E. (2009), "The importance of a general measure of brand engagement on market behavior: development and validation of a scale", *Journal of Marketing Research*, Vol. 46 No. 1, pp. 92-104.

274. Statista. (2016). *Global social networks ranked by number of users 2016*. Retrieved from <http://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/> (accessed November, 2016).
275. Statista (2016a). *Number of internet users worldwide from 2005 to 2016 (in millions)*. <http://www.statista.com/statistics/273018/number-of-internet-users-worldwide/>, accessed in May, 2016.
276. Steuer, J. (1992), "Defining virtual reality dimensions determining telepresence", *Journal of Communication*, Vol. 42 No. 4, pp. 73-93.
277. Stromer-Galley, J. (2000), "Online interaction and why candidates avoid it", *Journal of Communication*, Vol. 50 No. 4, pp. 111-32.
278. Tabachnick, B.G. and Fidell, L.S. (2006), *Using Multivariate Statistics*, Pearson: New York.
279. Tranfield, D., Denyer, D. and Smart, P. (2003), "Towards a methodology for developing evidence-informed management knowledge by means of systematic review", *British Journal of Management*, Vol. 14 No. 3, pp. 207-222.
280. Trusov, M., Bucklin, R.E. and Pauwels, K. (2009), "Estimating the dynamic effects of online word-of-mouth on member growth of a social network site", *Journal of Marketing*, Vol. 73 No. 5, pp. 90-102.
281. Tsai, W.H.S. and Men, L.R. (2013), "Motivations and antecedents of consumer engagement with brand pages on social networking sites", *Journal of Interactive Advertising*, Vol. 13 No. 2, pp. 76-87.
282. Tsai, W.H.S. and Men, L.R. (2014), "Consumer engagement with brands on social network sites: A cross-cultural comparison of China and the USA", *Journal of Marketing Communications*, Vol. 26 No. 1, pp. 1-20.
283. UGC. (2016), <http://www.ugc.ac.in> (Accessed in December, 2015).
284. Van Doorn, J., Lemon, K.N., Mittal, V., Nass, S., Pick, D., Pirner, P. and Verhoef, P.C. (2010), "Customer engagement behavior: theoretical foundations and research directions", *Journal of Service Research*, Vol. 13 No. 3, pp. 253-266.
285. Vargo, L. and Lusch, R. (2008), "Service-dominant logic: Continuing the evolution", *Journal of the Academy of Marketing Science*, Vol. 36 No. , pp. 1-10.

286. Vargo, S.L. and Lusch, R. (2017), "S-D logic 2025", *International Journal of Research in Marketing*, Vol. 34 No. 1, pp. 46-67.
287. Veloutsou, C. and Moutinho, L. (2009), "Brand relationships through brand reputation and brand tribalism", *Journal of Business Research*, Vol. 62 No. 3, pp. 314-322.
288. Verbraken, T., Goethals, F., Verbeke, W. and Baensens, B. (2014), "Predicting online channel acceptance with social network data", *Decision Support Systems*, Vol. 63 No. 1, pp. 104-114.
289. Verhagen, T., Feldberg, F., Hooff, B.D., Meents, S. and Merikivi, J. (2011), "Satisfaction with virtual worlds: An integrated model of experiential value", *Information and Management*, Vol. 48 No. 1, pp.201-207.
290. Verhoef, P.C., Reinartz, W.J. and Krafft, M. (2010), "Customer engagement as a new perspective in customer management", *Journal of Service Research*, Vol. 13 No. 3, pp. 247-252.
291. Verleye, K., Gemmel, P. and Rangarajan, D. (2013), "Managing engagement behaviors in a network of customers and stakeholders evidence from the nursing home sector", *Journal of Service Research*, Vol. 17 No. 1, pp. 68-84.
292. Verma, S. (2014), "Online customer engagement through blogs in India", *Journal of Internet Commerce*, Vol. 13 No. 3-4, pp. 282-301.
293. Verma, S. (2015), "Harnessing the Benefit of Social Networking Sites for Intentional Social Action: Determinants and Challenges", *Vision*, Vol. 19 No. 2, pp. 104-111.
294. Visser, W. (2007), "Corporate social responsibility in developing countries", in Crane, A., McWilliams, A. and Matten, D. (Eds.), *The Oxford Handbook of Corporate Social Responsibility*, Oxford University Press, Oxford, pp. 473-499.
295. Vivek, S.D., Beatty, S.E. and Hazod, M. (2017), "If You Build It Right, They Will Engage: A Study of Antecedent Conditions of Customer Engagement", In *Customer Engagement Marketing* (pp. 31-51). Palgrave Macmillan, Cham.
296. Vivek, S.D., Beatty, S.E. and Morgan, R.M. (2012), "Customer engagement: exploring customer relationships beyond purchase", *Journal of Marketing Theory and Practice*, Vol. 20 No. 2, pp. 122-146.

297. Vivek, S.D., Beatty, S.E., Dalela, V. and Morgan, R.M. (2014), "A generalized multidimensional scale for measuring customer engagement", *Journal of Marketing Theory and Practice*, Vol. 22 No. 4, pp. 401-420.
298. Wallace, E., Buil, I. and de Chernatony, L. (2014), "Consumer engagement with self-expressive brands: brand love and wom outcomes", *Journal of Product & Brand Management*, Vol. 23 No. 1, pp. 33-42.
299. Wang, C.H., Lee, T.R., Lin, Y.C.J. and Sutrisno, A. (2014), "Innovating brand strategy development using integration of data mining and the CBBE model", *International Journal of Innovation and Learning*, Vol. 16 No. 4, pp. 353-366.
300. Wang, K. and Lin, C.L. (2012), "The adoption of mobile value-added services: Investigating the influence of IS quality and perceived playfulness", *Managing Service Quality: An International Journal*, Vol. 22 No. 2, pp. 184-208.
301. Wang, Y., Ma, S.S. and Li, D. (2015), "Customer participation in virtual brand communities: The self-construal perspective", *Information & Management*, Vol. 52 No. 5, pp. 577-587.
302. Wei, W., Miao, L. and Huang, Z.J. (2013), "Customer engagement behaviors and hotel responses", *International Journal of Hospitality Management*, Vol. 33 No. 1, pp. 316-330.
303. Weiser, E.B. (2000), "Gender differences in Internet use patterns and Internet application preferences: A two-sample comparison", *Cyber Psychology and Behavior*, Vol. 3 No. 2, pp. 167-178.
304. Williams, L.J. and Hazer, J.T. (1986), "Antecedents and consequences of satisfaction and commitment in turnover models: A reanalysis using latent variable structural equation methods", *Journal of Applied Psychology*, Vol. 71 No. 2, pp. 219.
305. Wirtz, J., Den Ambtman, A., Bloemer, J., Horváth, C., Ramaseshan, B., Van de Klundert, J., Gurhan Canli, Z. and Kandampully, J. (2013), "Managing brands and customer engagement in online brand communities", *Journal of Service Management*, Vol. 24 No. 3, pp. 223-244.
306. Wolin, L.D. and Korgaonkar, P. (2003), "Web advertising: Gender differences in beliefs, attitudes and behavior", *Internet Research*, Vol. 13 No. 5, pp. 375-385.
307. Worth, L.T., Smith, J. and Mackie, D.M. (1992), "Gender schematicity and preference for gender-typed products", *Psychology & Marketing*, Vol. 9 No. 1, pp. 17-30.

308. Wu, G. (2006), "Conceptualizing and measuring the perceived interactivity of websites", *Journal of Current Issues and Research in Advertising*, Vol. 28 No. 1, pp. 87-104.
309. Yamane, T. (1967), *Statistics: An introductory analysis* (No. HA29 Y2 1967).
310. Yi, Y. and La, S. (2004), "What influences the relationship between customer satisfaction and repurchase intention? Investigating the effects of adjusted expectations and customer loyalty", *Psychology & Marketing*, Vol. 21 No. 5, pp. 351-373.
311. Yin, R. (1994), *Case study research: Design and methods*, Beverly Hills.
312. Zaglia, M.E. (2013), "Brand communities embedded in social networks", *Journal of Business Research*, Vol. 66 No. 2, pp. 216-23.
313. Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1996), "The behavioral consequences of service quality", *Journal of Marketing*, Vol. 60 No. 2, pp. 31-46.
314. Zha, X., Zhang, J., Yan, Y. and Xiao, Z. (2014), "User perceptions of e-quality of and affinity with virtual communities: The effect of individual differences", *Computers in Human Behavior*, Vol. 38 No. 1, pp. 185-195.
315. Zhang, M., and Luo, N. (2016), "Understanding relationship benefits from harmonious brand community on social media", *Internet Research*, Vol. 26 No. 4, pp. 809-826.
316. Zhang, W. and Watts, S.A. (2008), "Capitalizing on content: Information adoption in two online communities", *Journal of the Association for Information Systems*, Vol. 9 No. 2, pp. 73-94.
317. Zhang, H., Lu, Y., Gupta, S. and Zhao, L. (2014), "What motivates customers to participate in social commerce? The impact of technological environments and virtual customer experiences", *Information & Management*, Vol. 51 No. 8, pp. 1017-1030.
318. Zhang, M., Guo, L., Hu, M. and Liu, W. (2017), "Influence of customer engagement with company social networks on stickiness: Mediating effect of customer value creation", *International Journal of Information Management*, Vol. 37 No. 3, pp. 229-240.
319. Zheng, X., Cheung, C.M., Lee, M.K. and Liang, L. (2015), "Building brand loyalty through user engagement in online brand communities in social networking sites", *Information Technology & People*, Vol. 28 No. 1, pp. 90-106.
320. Zheng, Y., Zhao, K. and Stylianou, A. (2013), "The impacts of information quality and system quality on users' continuance intention in information-exchange virtual communities: An empirical investigation", *Decision Support Systems*, Vol. 56 No. 1, pp. 513-524.



321. Zhou, Z., Jin, X.L. and Fang, Y. (2014), “Moderating role of gender in the relationships between perceived benefits and satisfaction in social virtual world continuance”, *Decision Support Systems*, Vol. 65 No. 1, pp. 69-79.
322. Zikmund, W.G. (2000), *Exploring Marketing Research*, 7th ed., Dryden, Orland.





## PAPERS PUBLISHED FROM THE RESEARCH WORK

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### Papers published/accepted on my PhD research area in International Journals

1. **Islam, J.** and Rahman, Z. (2016), “The transpiring journey of customer engagement research in marketing: a systematic review of the past decade”, *Management Decision*, Vol. 54 No. 8, pp. 2008-2034 (*Emerald*) (*SSCI, Scopus, ABDC-B*). Impact factor: **1.396**.
2. **Islam, J.** and Rahman, Z. (2017), “The Impact of Online Brand Community Characteristics on Customer Engagement: An Application of Stimulus-Organism-Response Paradigm”, *Telematics and Informatics*, Vol. 34 No. 4, pp. 96-109 (*Elsevier*) (*SSCI, Scopus, ABDC-C*). Impact factor: **3.398**.
3. **Islam, J.**, Rahman, Z. and Hollebeek, L. (2018), “Consumer engagement in online brand communities: A solicitation of congruity theory” *Internet Research*, Vol. 28 No. 1, pp. (Emerald) (*SSCI, Scopus, ABDC-A*). Impact factor: **2.931**, *Forthcoming*.
4. **Islam, J.**, Rahman, Z. and Hollebeek, L. (2017), “Personality factors as predictors of online consumer engagement: An empirical investigation”, *Marketing Intelligence and Planning*, Vol. 35 No. 4, pp. 510-528 (*Emerald*) (*SSCI, Scopus, ABDC-A*).
5. **Islam, J.** and Rahman, Z. (2016), “Linking customer engagement to trust and word-of-mouth on facebook brand communities: an empirical study”, *Journal of Internet Commerce*, Vol. 15 No. 1, pp. 40-58 (*Taylor and Francis*) (*Scopus, ABDC-B*).

### Research Papers: Presented/ Published in International Conferences

1. *Customer engagement in Indian hotel industry: An empirical study* presented in the 41st International Business Research Conference in *Imperial College London, London, United Kingdom*, held on 20-21 April, 2017.
2. *Enhancing customer brand engagement through information quality and virtual interactivity on Facebook* presented in the Fifth International Conference on Advancement of Development Administration 2016— Social Sciences and Interdisciplinary Studies, National Institute of Development Administration (NIDA), *Bangkok, Thailand*, held on May 26-28, 2016.
3. *Using Facebook brand communities to engage customers: A new perspective of*

*relationship marketing* presented in the 14<sup>th</sup> International Conference on Humanities and Social Sciences (HUSOC) in **Dubai, UAE**, held on February 21-22, 2016.

4. *How Online Brand Community Characteristics Influence Customer Brand Engagement: An Empirical Check* presented in Ph.D. Consortium, 2017 on Advances in Theory and Applications in Management Science, organized by Indian Institute of Technology Bombay **IIT Bombay**, India, held on 24-25 January, 2017.
5. *Investigating the effect of self-brand-image congruity and value congruity on customer engagement: A perspective of online brand communities* presented in the International Conference on Global Trends in Business and Sustainability Research, Organized by Indian Institute of Technology Roorkee (**IIT Roorkee**), held on 2-4 December, 2016.
6. *Engaging Customers on Facebook: An Empirical Study* presented in the Third PAN-IIM World Management Conference, Indian Institute of Management Indore (**IIM Indore**), held on December 16-18, 2015.

## HONORS AND AWARDS:

- Awarded the **Indian Council of Social Science Research (ICSSR) Conference Travel Grant (Rs. 1,57,600/=)** to participate in the 41st International Business Research Conference, held in **Imperial College London, United Kingdom** on 20-21 April, 2017.
- The **Best Paper Award** in the 41st International Business Research Conference, held in **Imperial College London, United Kingdom** on 20-21 April, 2017.
- Nominated Consortium Fellow to represent the Department of Management Studies, IIT Roorkee in the **5<sup>th</sup> Aim AMA Sheth Foundation Doctoral Consortium**, held in Welingkar Institute of Management Development and Research **Mumbai, India** on January 6-8, 2017.
- Received the IIT Roorkee **Conference Travel Grant** of INR 25,000 to participate the Fifth International Conference on Advancement of Development Administration 2016— Social Sciences and Interdisciplinary Studies, **National Institute of Development Administration (NIDA), Bangkok, Thailand**, held on May 26-28, 2016.
- The **Best Paper Presenter Award** in the 14<sup>th</sup> International Conference on Humanities and Social Sciences (HUSOC) held in **Dubai, UAE** on February 21-22, 2016.
- The **Young Research Award** in the 14<sup>th</sup> International Conference on Humanities and Social Sciences (HUSOC) held in **Dubai, UAE** on February 21-22, 2016 with a full registration fee waiver of US \$250.
- **Special acknowledgement** for the work done in indianizing the book “**Consumer Behavior**” by Roger Blackwell, Paul Miniard, James Engel, and Zillur Rahman.
- Serving as a reviewer for top class journals like *Marketing Intelligence and Planning (Emerald)*, *Internet Research (Emerald)*, *Journal of Services Marketing (Emerald)*, and *Journal of Brand Management (Springer)*.



**APPENDIX-I**

### Appendix-1: Antecedents and consequences of customer engagement

Antecedents	Study	Consequences	Study
<b>Customer focused</b>			
Customer experience	Bowden (2009a); Bowden (2009b); Claffey and Brady (2014)	Loyalty	Banytè et al. (2014); Bowden (2009a); Bowden (2009b); Brodie et al. (2011); Brodie et al. (2013); Cambra-Fierro et al. (2013); De Vries and Carlson (2014); Dessart et al. (2015); Dwivedi (2015); Hollebeek (2011a); Gummerus et al. (2012); Harwood and Garry (2015); Nadeem et al. (2015); O'Brien et al. (2015); So et al. (2014b); So et al. (2015); Sprott et al. (2009); Vivek et al. (2012); Wirtz et al. (2013); So et al. (2014a)
Satisfaction	Bowden (2009); Bowden (2009a); Cambra-Fierro et al. (2013); Cambra-Fierro et al. (2014); Cambra-Fierro et al. (2015); Cheung et al. (2015); Dessart et al. (2015); So et al. (2014a); Van Doorn et al. (2010)	Self-brand associations	Sprott et al. (2009)
Commitment	Banytè et al. (2014); Bowden (2009); Bowden (2009a); Hollebeek (2011a); So et al. (2014a); Van Doorn et al. (2010)	Brand possession recall	Sprott et al. (2009)
Trust	Bowden (2009a); Gambetti and	Brand identification	Sprott et al. (2009)

	Graffigna (2010); Hollebeek (2011a); So et al. (2014a); Van Doorn et al. (2010)		
Involvement	Bowden (2009a); Bowden (2009b); Brodie et al. (2011); Dwivedi (2015); Hollebeek (2011a); Hollebeek et al. (2014); So et al. (2014a); So et al. (2015); Vivek et al. (2012);	Commitment	Brodie et al. (2011); Brodie et al. (2013); Cambra-Fierro et al. (2013); Harwood and Garry (2015); So et al. (2014a); Vivek et al. (2012); Vivek et al. (2014); Wirtz et al. (2013)
Telepresence	Mollen and Wilson (2010)	Trust	Banytè et al. (2014); Brodie et al. (2011); Brodie et al. (2013); Harwood and Garry (2015); Nadeem et al. (2015); So et al. (2014a); So et al. (2014b); So et al. (2015); Vivek et al. (2012);
Identity	Van Doorn et al. (2010); Verhagen et al. (2015); Wirtz et al. (2013)	Self-Brand Connection	Brodie et al. (2011)
Consumption goals	Van Doorn et al. (2010)	Emotional Brand Attachment	Brodie et al. (2011)
Perceived costs	Van Doorn et al. (2010)	Relationship Quality	Hollebeek (2011a)
Perceived benefits	Dessart et al. (2015); Franzak et al. (2014); Van Doorn et al. (2010); Verhagen et al. (2015); Wirtz et al. (2013)	Satisfaction	Banytè et al. (2014); Brodie et al. (2013); Gummerus et al. (2012); So et al. (2014a); So et al. (2015); Wirtz et al. (2013)
Participation	Ángeles Oviedo-García et al. (2014); Brodie et al. (2011); Vivek et al. (2012);	Consumer empowerment	Brodie et al. (2013)
Relationship quality	Hollebeek (2011a)	Customer value	Hollebeek (2013); So et al. (2014a)
Uncertainty avoidance	Wirtz et al. (2013)	Self-brand connection	Hollebeek et al. (2014)

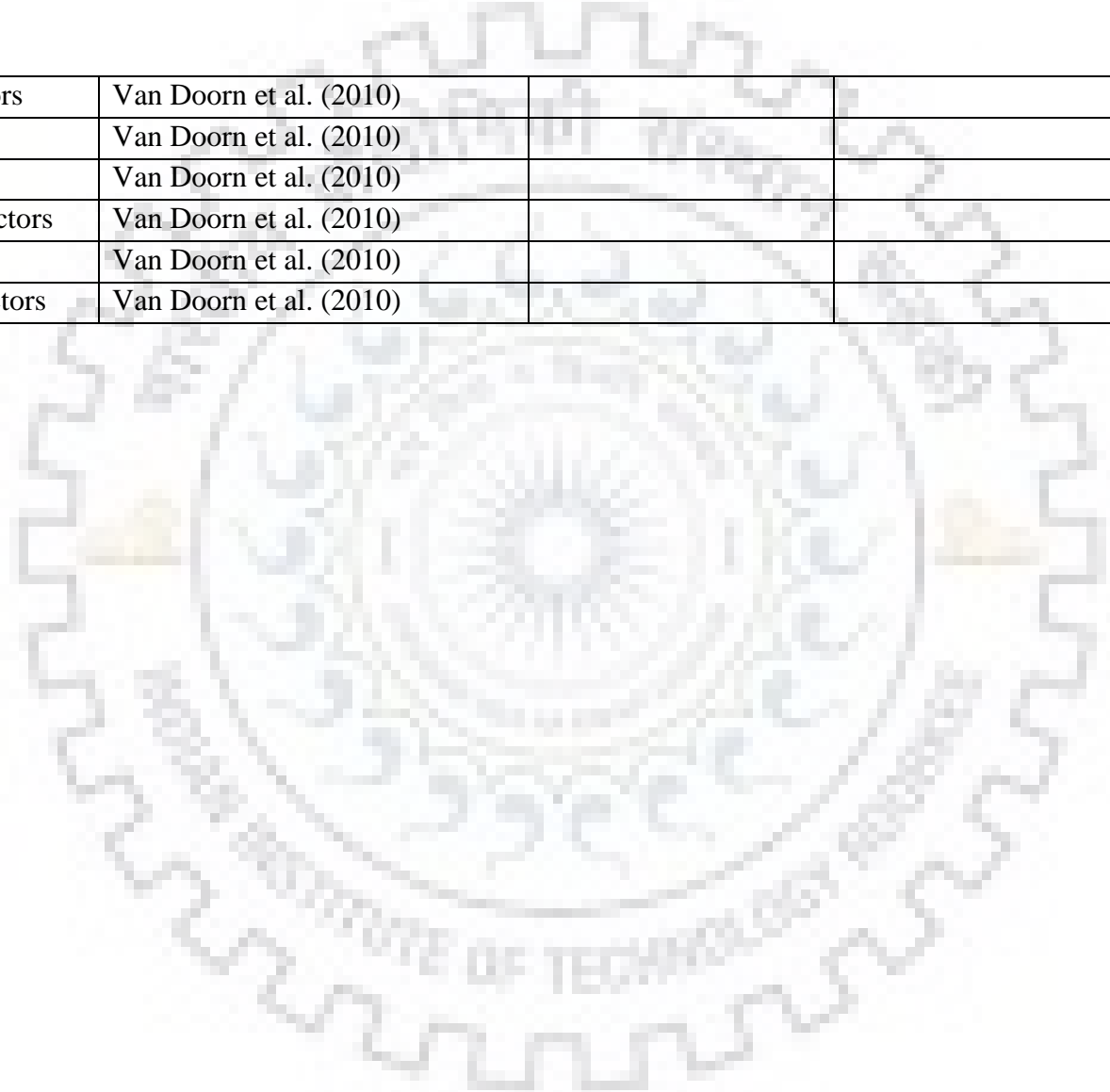
Social media dependency	Tsai and Men (2013); Tsai and Men (2014)	Brand love	Wallace et al. (2014)
Interaction	Bitter et al. (2014); Cheung et al. (2015); Tsai and Men (2013); So et al. (2014a); Tsai and Men (2014);	Brand experience	So et al. (2014a)
Community identification	Dessart et al. (2015); Hammedi et al. (2015); Tsai and Men (2013); Tsai and Men (2014);	Word of mouth	Cambra-Fierro et al. (2013); Hollebeek and Chen (2014); Vivek et al. (2012); Wallace et al. (2014)
Perceived company actions	Hollebeek and Chen (2014)		
Perceived brand quality/performance	Hollebeek and Chen (2014); So et al. (2014a)		
Perceived brand value	Hollebeek and Chen (2014)		
Perceived brand innovativeness	Hollebeek and Chen (2014)		
Perceived brand/company responsiveness	Hollebeek and Chen (2014)		
Perceived delivery of brand promise.	Hollebeek and Chen (2014)		
Customer-brand relationship	Bitter et al. (2014); Jaakkola and Alexander (2014)		
Social value	De Vries and Carlson (2014)		
Usage intensity	De Vries and Carlson (2014); Dijkmans et al. (2014)		
co-creation value	De Vries and Carlson (2014)		
Brand love	Sarkar and Sreejesh (2014)		



Brand jealousy	Sarkar and Sreejesh (2014)		
Brand attachment	So et al. (2014a)		
Rapport	So et al. (2014a)		
Brand usage duration	Dwivedi (2015)		
Customization	Cheung et al. (2015)		
Peer recommendations	Nadeem et al. (2015)		
Brand identification	Dessart et al. (2015)		
<b>Firm focused</b>			
Brand advertising	Roberts and Alpert (2010)	Advertising effectiveness	Calder et al. (2009)
Value proposition	Roberts and Alpert (2010)	Consumer Welfare	Van Doorn et al. (2010)
Company culture	Roberts and Alpert (2010)	Economic Surplus	Van Doorn et al. (2010)
Employee engagement	Roberts and Alpert (2010)	Social Surplus	Van Doorn et al. (2010)
Customer experience	Roberts and Alpert (2010)	Cross-brand	Van Doorn et al. (2010)
Brand Characteristics	Van Doorn et al. (2010)	Cross-Customer	Van Doorn et al. (2010)
Firm Reputation	Van Doorn et al. (2010)	Financial performance	So et al. (2014a); Van Doorn et al. (2010);
Firm size	Van Doorn et al. (2010)	Competitive advantage	Van Doorn et al. (2010)
Firm diversification	Van Doorn et al. (2010)	Reputation	Dijkmans et al. (2014); So et al. (2014a); Van Doorn et al. (2010);
Firm information usage and processes	Van Doorn et al. (2010)	Business performance	Cambra-Fierro et al. (2013)
Industry	Van Doorn et al. (2010)	brand community involvement	Vivek et al. (2012)
Service quality	Verhoef et al. (2010)	brand community participation	Wirtz et al. (2013)

Organizational support	Jaakkola and Alexander (2014); Verhoef et al. (2010)	Idea Generation	Wirtz et al. (2013)
Organizational socialization	Verleyee et al. (2013)	Higher sales	Cheung et al. (2015); Wirtz et al. (2013)
Brand identification	Wirtz et al. (2013)	Improved brand image	Wirtz et al. (2013)
Brand's symbolic function	Wirtz et al. (2013)	Relationship with customers	Banytè et al. (2014); Jaakkola and Alexander (2014); So et al. (2015); Wirtz et al. (2013)
Information quality	Dessart et al. (2015); Wirtz et al. (2013)	Value co-creation	Banyte et al. (2014)
Incentives	Dessart et al. (2015); Wirtz et al. (2013);	Value	Brodie et al. (2011); Claffey and Brady (2014); Vivek et al. (2014)
Brand strength	De Vries and Carlson (2014)	Brand performance	De Vries and Carlson (2014);
Firm Communication	Banytè et al. (2014); Jaakkola and Alexander (2014)	Brand attitude	Hollebeek and Chen (2014); Nadeem et al. (2015)
Employee attitude	Cambra-Fierro et al. (2014)	Brand usage	Hollebeek et al. (2014)
Complaint handling	Cambra-Fierro et al. (2015)	Recognition	Jaakkola and Alexander (2014); So et al. (2014a)
website service quality	So et al. (2015)	Improved working environment	Jaakkola and Alexander (2014)
Corporate social responsibility activities	O'Brien et al. (2015)	Differentiation	Jaakkola and Alexander (2014)
		Reduction in antisocial behavior	Jaakkola and Alexander (2014)
		Future patronage intent	Vivek et al. (2014)
		Brand acceptance	Wallace et al. (2014)
		Customer equity	So et al. (2014a)

		Regulation	Van Doorn et al. (2010)
<b>Others</b>			
Competitive factors	Van Doorn et al. (2010)		
Political factors	Van Doorn et al. (2010)		
Economic factors	Van Doorn et al. (2010)		
Environmental factors	Van Doorn et al. (2010)		
Social factors	Van Doorn et al. (2010)		
Technological factors	Van Doorn et al. (2010)		





**APPENDIX-II**

## **Appendix-II: RESEARCH QUESTIONNAIRE**

**Researcher:** Jamid Ul Islam ♦ **Affiliation:** Department of Management Studies, IIT Roorkee

**Mobile:** +91-9690797987 ♦ **E-Mail:** jammicms.kmr@gmail.com, [jamid.ddm2014@iitr.ac.in](mailto:jamid.ddm2014@iitr.ac.in)

**Research Problem:** Whether and how do the unique characteristics of online brand communities affect consumer engagement?

This survey asks questions about the unique characteristics of online brand communities (OBCs) available on Facebook. An OBC is an aggregation of brand users sharing a strong relationship with a brand. It comprises of an enduring, self-selected group of consumers, who accept and recognize bonds of membership with each other and the brand. For example, brand communities of Apple, Samsung India, Shoppers Stop, and Domino's Pizza India etc.

On the OBCs, consumers are able to perform activities, including sharing their brand related experiences, interacting with other OBC members, participating in discussions, quizzes, games, and surveys etc., and providing feedback to information presented to them.

We are very interested in your opinions about the OBCs that you follow on Facebook and what kind of activities do you perform when you get on your preferred OBC. There are no right or wrong answers. When completing this survey, some of the questions may seem quite similar. We would be grateful to you if you answer all of the questions, even if you find some questions to be similar. The survey won't take more than 10-15 minutes to complete. We ensure you that your complete information will remain confidential.

### Section-I

1. Approximately, how many times do you check Facebook in a day?  
\_\_\_\_\_
2. Approximately, how many brand communities do you follow on Facebook?  
\_\_\_\_\_
3. What types of brand communities do you follow on Facebook (e.g., food and beverages, fashion, automotives, and electronics etc.)?  
\_\_\_\_\_
4. Which is your most favorite brand community on Facebook?  
\_\_\_\_\_
5. How often do you visit your favorite brand community in a day?  
\_\_\_\_\_

6. What activities do you perform when you get on your online brand community?

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## Section-II

Following statements are related to the key characteristics of online brand communities. These unique characteristics include *System Quality* (i.e., speedy and convenient search for information in the community), *Information Quality* (indicates information relevance, data richness, information access, and customized information), *Reward* (i.e., the degree of monetary or psychological appreciation), and *Virtual Interactivity* (i.e., the degree of information exchange and the extent to which members can adjust the content). Keeping in mind your favorite OBC on Facebook, please indicate the extent to which you agree with the statement; by circling/tick marking the most appropriate number (i.e., circling/tick marking “1” indicates you strongly disagree with the statement and circling “7” indicates you strongly agree with the statement. Numbers in the middle indicate varying levels of agreement).

1. [name of the OBC] has an appropriate style of design.

1      2      3      4      5      6      7

2. [name of the OBC] has easy navigation to information.

1      2      3      4      5      6      7

3. [name of the OBC] has fast response and transaction processing.

1      2      3      4      5      6      7

4. [name of the OBC] keeps personal information secure from exposure.

1      2      3      4      5      6      7

5. [name of the OBC] has good functionality.

1      2      3      4      5      6      7

6. [name of the OBC] creates an audio-visual experience.

1      2      3      4      5      6      7

7. [name of the OBC] provides complete information.

1      2      3      4      5      6      7

8. [name of the OBC] provides site-specific information.

1      2      3      4      5      6      7

9. [name of the OBC] provides accurate information.

1      2      3      4      5      6      7

10. [name of the OBC] provides timely information.

1      2      3      4      5      6      7

11. [name of the OBC] provides reliable information.

1      2      3      4      5      6      7

12. [name of the OBC] communicates information in an appropriate format.

1      2      3      4      5      6      7

13. [name of the OBC] offers monetary rewards.

1      2      3      4      5      6      7

14. [name of the OBC] offers psychological rewards.

1      2      3      4      5      6      7

15. [name of the OBC] upgrades (downgrades) member privileges.

1      2      3      4      5      6      7

16. [name of the OBC] has a high degree of activity in informational and interpersonal exchanges.

1      2      3      4      5      6      7

17. [name of the OBC] has a high speed of inquiry and response.

1      2      3      4      5      6      7

18. [name of the OBC] makes exchanges between host and members.

1      2      3      4      5      6      7

Following statements are related to your engagement with your favorite online brand community. Please indicate the extent to which you agree with the statement; by circling/tick marking the most appropriate number (i.e., circling/ tick marking “1” indicates you strongly disagree with the statement and circling “7” indicates you strongly agree with the statement. Numbers in the middle indicate varying levels of agreement).

1. Using [name of the OBC] gets me to think about the brand.

1      2      3      4      5      6      7

2. I think about [name of the OBC] a lot when I'm using it.

1      2      3      4      5      6      7

3. Using [name of the OBC] stimulates my interest to learn more about the brand.

1      2      3      4      5      6      7

4. I feel very positive when I use name of the OBC].



- 1      2      3      4      5      6      7
5. Using [*name of the OBC*] makes me happy.  
1      2      3      4      5      6      7
6. I feel good when I use [*name of the OBC*].  
1      2      3      4      5      6      7
7. I'm proud to use [*name of the OBC*].  
1      2      3      4      5      6      7
8. I spend a lot of time using [*name of the OBC*], compared to other brand communities.  
1      2      3      4      5      6      7
9. Whenever I'm using an online brand community, I usually use [*name of the OBC*].  
1      2      3      4      5      6      7
10. [*name of the OBC*] is one of the online brand communities I usually use when I use an online brand community.  
1      2      3      4      5      6      7

Following statements are related to your loyalty towards your favorite OBCs. Please indicate the extent to which you agree with the statement; by circling/tick marking the most appropriate number (i.e., circling/ tick marking “1” indicates you strongly disagree with the statement and circling “7” indicates you strongly agree with the statement. Numbers in the middle indicate varying levels of agreement).

1. I say positive things about [*name of the OBC*] to other people.  
1      2      3      4      5      6      7
2. I recommend [*name of the OBC*] to someone who seeks my advice.  
1      2      3      4      5      6      7
3. I encourage friends and others to do business with [*name of the OBC*].  
1      2      3      4      5      6      7
4. I will be loyal to [*name of the OBC*] in the future.  
1      2      3      4      5      6      7
5. I will keep on being a customer of [*name of the OBC*].  
1      2      3      4      5      6      7

Section-III

Finally, so that we may categorize your responses with other participants, please answer the following questions. We ensure you that your complete information will remain confidential.

**Age group (Years):**

18-22 ( )      23-27 ( )      28-32 ( )      33 and above ( )

**Gender:**

Male ( )      Female ( )      Other ( )

**Approximate annual household income (□):**

2, 00, 000 or less ( )      2, 00, 001 - 3, 00, 000 ( )  
3, 00, 001 - 4, 00, 000 ( )      4, 00, 001 - 5, 00, 000 ( )  
5, 00, 001 or above ( )

**Academic course enrolled in:**

Bachelors ( )      Master's ( )  
Doctoral ( )      Other ( )

Thank you very much for your time, we appreciate your assistance.



**APPENDIX-III**

**Appendix III: List of the identified universities in Delhi**

Type of university	Name of the university	N
<b>Central University</b>	<ul style="list-style-type: none"> <li>• Indira Gandhi National Open University</li> <li>• Jamia Millia Islamia</li> <li>• Jawaharlal Nehru University</li> <li>• South Asian University</li> <li>• University of Delhi</li> </ul>	5
<b>State University</b>	<ul style="list-style-type: none"> <li>➤ Ambedkar University Delhi</li> <li>➤ Delhi Pharmaceutical Sciences &amp; Research University</li> <li>➤ Delhi Technological University</li> <li>➤ Guru Gobind Singh Indraprastha Vishwavidyalaya</li> <li>➤ Indraprastha Institute of Information Technology</li> <li>➤ National Law University</li> </ul>	6
<b>Deemed University</b>	<ul style="list-style-type: none"> <li>○ Indian Agricultural Research Institute</li> <li>○ Indian Law Institute</li> <li>○ Jamia Hamdard</li> <li>○ National Museum Institute of History of Arts, Conservation and Musicology</li> <li>○ Indian Institute of Foreign Trade</li> <li>○ National University of Educational Planning &amp; Administration</li> <li>○ Rashtriya Sanskrit Sansthana</li> <li>○ Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapith</li> <li>○ TERI School of Advanced studies</li> </ul>	9
<b>Institute of National Importance</b>	<ul style="list-style-type: none"> <li>✓ All India Institute of Medical Sciences</li> <li>✓ Indian Institute of Technology</li> <li>✓ National Institute of Technology</li> <li>✓ School of Planning &amp; Architecture</li> </ul>	4
<b>Total</b>		24



**APPENDIX-IV**

**Appendix-IV: Summary of statistical techniques used in the present study**

Analysis	Purpose	Technique	Software	Cut-off point	Source
<b>• Data Screening</b>					
Missing data	Checking the missing data and possible ways of remedies	Count blank, Std. deviation	SPSS/Excel	Randomly Missing data <10%	Hair et al., (2010)
Outliers	Refers to extreme values on single variable	Standardised scores (z)	SPSS	$z < \pm 3.29$	Tabachnick and Fidell, 2006
<b>• Testing the Assumptions of Multivariate Analysis</b>					
Normality	To check the normality of data	Skewness & kurtosis	SPSS	Value $\leq \pm 2.58$	Hair et al., (2010)
		Normal P-P plot	SPSS	Reasonable straight line	Pallant, 2010
Multicollinearity	High correlation between independent variables	Tolerance	SPSS	Tolerance $> .1$	Hair et al., (2010)
		VIF	SPSS	VIF $< 10$	
<b>• Structural Equation Modelling (SEM)</b>					
Confirmatory factor analysis	Measurement model goodness of fit	Absolute fit indices	AMOS	$\chi^2:df \leq 3:1$ GFI $\geq 0.9$ RMSEA $\leq 0.08$	Hair et al., (2010)
		Incremental fit indices		NFI $\geq 0.9$ CFI $\geq 0.9$ TLI $\geq 0.9$	Kline, 2005
		Parsimony fit indices		AGFI $\geq 0.9$	
	Measurement model validity	Convergent validity	AMOS	AVE $\geq 0.5$ CR $\geq 0.7$ $\sqrt{AVE} > \text{inter-construct correlations}$	Hair et al., (2010)
		Discriminant validity			
	Moderation analysis	Multi-group causal analysis	AMOS	Path comparison	Zhou et al., (2014)