TECHNOLOGY ACCEPTANCE MODEL AND THE SOCIAL CRM: A MODEL FOR CUSTOMER ENGAGEMENT

Abstract
Social CRM is a new domain of research which has come into focus of interest built on the development of social media technologies since 2006. Here, based on the work of Harrigan et. al. (n.d.) along with the purview of the extensive literature on customer engagement in CRM in the journal of Service Research, 2010, this study develops a conceptual model to explain the relationships leading to possible outcomes of implementing social CRM. The Technology Acceptance Model (TAM) of Davis (1989) was incorporated into the model to provide a clear picture of how customers accept a new technology and possible engagements in the media. The model will be tested using structural equation modelling. Possible findings will lead to new relationships amongst the variables, hence contributing to knowledge building on existing literature. Business practitioners will benefit from getting first insights into how customers look into their engagements in social media technologies and what are the manifestations of the customer communications in such media.
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Introduction

Customer relationship management (CRM) is derived from relationship marketing (Boulding et al., 2005; Eid, 2007; Gummesson, 2002). Relationship marketing is a broader concept than CRM; CRM looks into managing the most important relationship with customer (Frow, Payne, Wilkinson, and Young 2011) leading to development of close relationships, interactions, and social exchanges (Chen and Ching, 2007). CRM is a comprehensive strategy and enables an organization to identify, acquire, retain and nurture profitable customers by building and maintaining long-term relationships with them (Sin, Tse, and Yim, 2005).

With the development of computers and the growth of the internet, marketing practitioners are now challenged with new dimensions in dealing with customers. In the early stages of the development of CRM, software packages brought in by companies such as Oracle, Microsoft or Sage, enabled to keep track and record of activities of customer engagement within different departments of the organization (Harrigan, Choudhury, Harris, and Alford, n.d.). Such softwares facilitated analysis of customer data and enabled decision makers to formulate policies in order to come closer to the customers. The recent advancement of the internet with the development of the social media technologies in the 2006s such as Facebook, twitter, LinkedIn, YouTube, Google (+ and Analytics) etc. has created new scope for CRM. Such technologies offer organisations a vast range of information and access to customer information ensuring understanding of customers in the virtual environment (Harrigan and Choudhury, n.d.). Associated with these developments is the rise of new softwares such as Hootsuite, Radian6, Janra, Sprout Social and Virtue allowing businesses to monitor communications and engage themselves in these social media technologies. All these have given rise to a new form of CRM, the social CRM.

To date there has been limited research on social CRM. Previous studies (Baird and Parasnis, 2011) show that there is considerable difference between how customers perceive their engagement in social media technologies and how businesses see the customers to be a part of the social media in being recipients of about the business and its products and service. Moreover, other studies (e.g. Harrigan et al. 2011; Jayachandran, Sharma, Kaufman, and Raman, 2005) have used marketing practitioners as respondents for their study to develop a model showing the relationship of customer engagement and relationship with effect of customer relationship performance. Therefore, there is a need of the study to understand how customers perceive their engagement in social media technologies and in creating social CRM. Moreover, when technology is involved in research, the technology acceptance model (TAM) has been utilized by previous researchers to explain the adoption of technology by users (e.g. Davis, Bagozzi, and Warshaw 1989; Davis 1989; Venkatesh and Morris 2000). Hence, this study develops a conceptual model based on the work of Harrigan et. al. (n.d.) bringing into consideration the TAM. Thus, the conceptual model is shown in figure 1 with the discussion in the following sections showing the development of the hypotheses.

TAM and Customer Relationship Management

Most often researchers have found that the implementation of CRM in businesses requires the use of information technology (Allen 2008). A good fit between CRM between information systems and the organization is made possible when the information technology embeds into the business processes that are in existent within the organization (Li, Liao, and Lei, 2006). In social media technologies, implementation of social CRM within the
departments and functional units of the organizations will not be appropriate; it requires taking the customers in cognizance and to include them in the part of the business process of the organizations (Osarenkhoe and Bennani 2007). The technology acceptance model (TAM) explains the individual’s intention to adopt a specific technology. There are two specific concepts of TAM, viz. Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) [Davis et. al., 1989]. PU is the individual’s feeling towards a particular technology which will enable him/her to enhance performance (Askool and Nakata 2010). And, PEOU is the individual’s belief that using information systems would be free of physical and mental effort (Davis 1989).

**Figure 1: The Conceptual Model for Customer Engagement in Social CRM**

Customer engagement in social media technologies have been interest for researchers before the development of softwares with the advancement of information technology. However, in depth research on customer engagement in the field of marketing may have evolved after the conference on managing the interface between firms and customers in January 2009 and subsequent publication of research papers in the special issue of the Journal of Service Research in 2010.

Brodie, Ilic, Juric, and Hollebeek (2011) define customer engagement as 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”. Harrigan et. al. (n.d.), on review of extensive literature, have found four key constructs of customer engagement with social CRM: communication with customers, engaging in online customer communities, management of online customer communities, and mobile technology usage. Communication with customers is made possible in social media technologies to create spheres for interaction between the customer and the businesses (Jayachandran et al., 2005). For instance, DANIDA—the donor agency of the Denmark, makes it possible to communicate its messages of development to civil societies and citizens of the country through Facebook and Twitter.

The recent developments of the browsing technology, especially web 2.0 enabled social media technologies, enables to post opinions and discussions on blog sites, forum
boards, and discussion websites (Hennig-Thurau, Malthouse, Frieg, Gensler, Loboschat, Rangaswamy, and Skiera, 2010; Kumar, Akzoy, Donkers, Wiesel, Venkatesan, and Tillmanns, 2010). For instance, customers can now provide feedback and reviews on holiday destinations as well as hotels that they have visited in travel websites such as Oppodo. All these are indications of engagement in online communities by users (customers).

Once customers and businesses engage in online communities, the next proactive actions that businesses need to undertake is the strategic planning and control of activities in the online communities (Hoyer, Chandy, Dorotic, Krafft, and Singh, 2010; van Doorn, Lemon, Mittal, Nass, Pick, Pirner and Verhoef, 2010). Loosely managed online community engagements may lead to negative word-of-mouth being spread in an uncontrolled pattern with the social media (Nambisan and Baron, 2007; Tripathi, 2009; Van Bruggen, Antia, Jap, Reinartz and Pallas, 2010).

Finally, as a dimension for customer engagement, the usage of mobile technologies has expanded over the last few years (Hennig-Thirau et. al., 2010). There are now 70% of the world population using a mobile phone, that’s over 5 billion mobile subscribers\(^1\). Of this, 1.08 million users have smart phones enabling them the users to use the phones for browsing the internet and accessing social networking websites like Facebook, YouTube, etc.

**Customer Relationship Orientation**

The concept of customer relationship orientation has been derived from the market orientation literature (Kohli and Jaworski, 1990; Narver and Slater, 1990). Customer orientation encompasses the notion that organizations must adopt a strategic and philosophical position that a better understanding of customers requires satisfying customers’ needs through the development of close personal relationships, interactions and social exchanges (Chen and Ching, 2007).

Previous studies have investigated the role of technology on customer relationship orientation (McKnight et. al., 2002; Gefen et.al. 2003; Gefen and Straub, 2004). Simultaneously in marketing literature several models of CRM have included the technology component (Harrigan et. al 2011; Jayachandran et al. 2005). However, there is limited research to understand the effect of social media technologies in CRM and the role of customer orientation with the domain of customer communication and customer information management.

Social media technologies use Web 2.0 applications for creation and exchange of user generated content (Kaplan and Haenlein 2010). Such technologies provide real time communication between customers and businesses (van Bruggen et. al. 2010; Verhoef, Reinartz, and Krafft, 2010) enabling the customer to come closer to each other (Wuyts, Dekimpe, Gijsbrechts, and Pieters, 2010). As stated earlier, in TAM, PU is the “extent to what a person believes that using a technology will enhance his or her job performance” (Venkatesh and Morris 2000). Similarly, perceived ease of use (PEOU) is defined as the “the degree to which a person believes that using the system will be free from effort” (Davis 1989). In virtual environments, organizations use the social media to understand and gather information about their customers. They also interact with customers and simultaneously provide the necessary marketing inputs to the customers in the form of information (Harrigan, Paul, Ramsey, and Ibbotson, 2011). All these efforts require complete understanding of the customers and their needs, which require a close personal relationships, interactions, and social exchanges with the customers by the businesses (Chen and Ching 2007). Hence, if the TAM is exercised into this embodiment, the organizations are necessarily creating the scope

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for perceived use and perceived ease of usefulness of the social media technology. Therefore, it can be hypothesized that—

**H1:** Customer Relationship Orientation will have a positive association with Perceived Ease of Use of Social Media Technologies.

**H2:** Customer Relationship Orientation will have a positive association with Perceived Usefulness of Social Media Technologies.

Previous studies (e.g. Gefen and Straub 2004; Gefen et. al. 2003; McKnight et. al. 2002; Venkatesh and Davis 2000) on TAM have empirically proven that perceived usefulness will influence perceived ease of use which will eventually create attitude towards use of the technology. Hence, we hypothesize that—

**H3(a):** Perceived Ease of Use will influence Perceived Usefulness in social CRM technologies.

**H3(b):** Perceived Usefulness will influence Attitude towards Use of Social Media in social CRM technologies.

**H3(c):** Perceived Ease of Use will influence Attitude towards Use of Social Media in social CRM technologies.

**Relational Information Processes**

Harrigan et. al. (n.d.) derived the concept of relational information processes from the studies of Jayachnadran et. al. (2005). Four dimensions of relational information processes have been reported by Harrigan et. al. (n.d.)—information capture, information integration, information access, and information use. *Information capture* entails the gathering of any information that has been posted by a user in the social media technologies (Harrigan et. al. n.d.). *Information integration* requires the assimilation of customer information from all interactions to develop a detailed picture of each customer relationship and the utopia of a ‘single view of the customer’ (Jayachandran et al. 2005). *Information access* implies providing the customer information in a usable and timely manner to both customer-facing employees and strategic marketing decision makers (Jayachandran et al. 2005). Finally, *information use* refers to the actual usage of customer information within the organization by marketers (Chen and Ching, 2007).

**CRM Technology Adoption**

Earlier with the advent of information technologies, the CRM technology referred to the software packages such as Sage, Siebel, Oracle, Peoplesoft, etc. These technologies have provided marketers with the tools to build deep insights about customers. In the present stage on introducing web 2.0 applications, the rise of social networking websites such as Facebook, Twitter, YouTube, LinkedIn, Diasporo, etc. have created new trends in software tools like Radian6, HootSuite, Sprout Social, Kick Apps, Sendling, Janra, Sprinklr, and Virtue. These softwares are capable of constantly monitoring and engaging with their range of social media platforms from one place by businesses².

In social media technology environments, CRM technology adoption actually refers to the acceptance on part of the businesses for the collection, integration, and analysis of customer data, and subsequent communication to/with customers (Jayachandran et al. 2005). Since social media brings customers close to businesses, it appears that businesses are now looking forward to invest in the CRM technologies. Harvard Business Review (HBR) survey of 2,100 organizations found that 21 per cent of these organizations are preparing to launch social media initiatives. Such adoption of CRM simultaneously require the support of

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² Please see http://blog.hootsuite.com/company/ [accessed January 18, 2011].
customers to provide their personal information and willingness to participate in the social media communications (Harrigan et al., 2011; Hennig-Thurau et al., 2010; Bijmolt, Leeflang, Block, Eisenbeiss, Hardie, Lemmens, and Saffert, 2010).

In previous studies where TAM has been used, the attitude to acceptance of technology had led to further manifestations of relationships. Hence, in this study, we also propose that—

**H4(a):** Attitude towards Social Media has a positive association with customer engagement.  
**H4(b):** Attitude towards Social Media has a positive association with relational information processes.  
**H4(c):** Attitude towards Social Media has a positive association with CRM technology adoption.

In Harrigan et al.'s (n.d.) study, the researchers noted that the outcome of a model for social CRM is customer relationship performance on part of the organization. The authors in the journal for the special issue on Journal of Service Research in 2010 and similar literature recommended that the outcome resulting from CRM implementation with customer engagement in social media technologies leads to creation of trust (Tripathi, 2009; Choudhury, 2008; Osarenkhoe and Bennani, 2007; Gefen and Straub, 2004), enables brand loyalty amongst customers (Brodie et. al. 2011; Hennig-Thurau et. al. 2010; Kumar et. al. 2010), encourages customers in co-creating the products and services of the organization, and provides the empowerment of the customers to have a say in the business of the organization (Tripathi 2009; Hennig-Thurau et. al. 2010; Kumar et. al. 2010). Hence, it can be hypothesized that—

**H5(a):** CRM Technology Adoption will have a positive association with trust of customers for social media technologies.  
**H5(b):** CRM Technology Adoption will have a positive association in brand loyalty of customers.  
**H5(c):** CRM Technology Adoption will have a positive association in co-creation of products and services by customers.  
**H5(d):** CRM Technology Adoption will have a positive association in building empowerment of customers.

**Methodology for the Research**

As stated earlier, this study will test a conceptual model based on the study of Harrigan et. al. (n.d.). This will be an exploratory study and therefore a survey technique will be used to collect data. In the previous studies, the population of the study included representatives (managers) from different organizations that implemented social CRM. In this study, the population of the study will be customers of the organizations that implement social CRM.

A survey technique will be used to collect data. Since most of the measurement items for the survey will be borrowed from previous questions, a pilot study need to be conducted and on the basis of which the questions will be modified for the final survey. Data analysis will be conducted using structural equation modelling as the relationship between the variables is inter-dependent. The analysis will lead to drawing inferences from which the theoretical and managerial implications will be derived.

**Theoretical and Managerial Contribution**

The study will lead to development of the model which will encompass the TAM. New relationships will develop leading to knowledge building in existing literature. For business practitioners, the study will provide insights into what customers perceive and proceed to building the outcomes of their engagement in the social media technologies.
References


