Customer Value Creation in CRM Initiatives: The Impacts of Organizational Learning and IT Capabilities

Emergent Research Forum Paper

K. R. Vishwanath
University of Wisconsin-Whitewater
Whitewater, WI
vishwanaKR02@uw.edu

S. Balaji
University of Wisconsin-Whitewater
Whitewater, WI
sankarab@uw.edu

Abstract

CRM initiatives are at the forefront of many organizations seeking to nurture long-term customer relationships through customer value creation. While the gains from CRM initiatives are apparent, the synergistic pathways that lead to customer value creation are understudied in literature. We take an organizational learning perspective, and posit that customer value creation in CRM initiatives can be obtained through dedicated organizational learning. Further, we draw upon the IT assets literature to posit that business analytics capability and IT infrastructure for CRM positively impact organizational learning. Human capital is postulated to play a moderating role on these impacts. We propose to conduct a matched-pair survey of senior executives and subsequent analysis to empirically validate our study. Findings from this study will help clarify the role of IT capabilities and organizational learning in CRM initiatives.

Keywords

CRM, organizational learning, IT capabilities, business analytics, IT infrastructure, human capital

Introduction

Increasingly, organizations seeking better value proposition for their customers have placed a renewed emphasis on Customer Relationship Management (CRM) initiatives. Recent practitioner reports state that CRM initiatives rank among the top digital initiatives for many companies, with a forecasted growth of $1.5 B by 2019 in the CRM analytics software market (Gartner report, 2016). Several researchers also contend that understanding customer preferences through CRM systems has led to the effective deployment of CRM strategies, thereby increasing customer retention rates and value creation (Chen and Ching, 2005; Frow and Payne, 2009). Despite the importance of CRM, researchers and practitioners alike also report disappointing results with CRM implementations (Richards and Jones, 2008).

Prior research shows that successful CRM implementation requires dynamic organizational learning approaches (Peltier et al. 2013; Stein and Smith, 2009), where knowledge management is considered as a crucial component that links organizational factors and CRM success (Garrido-Moreno et al. 2011). For instance, while Mack et al. (2005) asserts that an effective analytics capability improves CRM success, Peltier et. al. (2013) found that customer data quality and the hierarchy of organizational learning impact CRM success. Although prior literature has begun to address the CRM success factors from technology and learning perspectives, research gaps exist in terms of the integrated role played by these components. The synergistic role played by the IT infrastructure, analytics capability and human resources to enhance learning and CRM success have been understudied in the extant literature.

In this study, we draw upon organizational learning theory (March 1991) and IT Assets perspective (Ross et al. 1996) to theorize that customer value creation can be obtained through dedicated organizational learning. We also postulate that business analytics capability and IT infrastructure act as antecedents of organizational learning, while human capital is postulated to moderate the effects of IT infrastructure and business analytics capabilities on organizational learning.
The research questions this study seeks to address are as follows:

1. In the CRM context, what are the impacts of organizational learning on customer value creation?

2. In the CRM context, what are the impacts of antecedents such as human capital, business analytics capability and IT infrastructure on organizational learning?

The next section provides the theoretical background for the study, followed by research model and hypotheses and proposed method sections. We conclude with the expected contributions from the study.

**Theoretical Background**

Several researchers and practitioners alike have established the importance of CRM in a firm (Knox et al. 2002). CRM provides firms with long-term sustainable relationships between the firm and its current and potential customers (Chen and Popovich, 2003; Bueren et al. 2004). The success of CRM efforts is contingent upon the level of CRM implementation - functional, customer facing or companywide (Reinartz et al. 2004), through the leveraging of information technology to deliver customer-based solutions (Payne and Frow 2005). In this regard, organizational learning theory states that learning initiatives can facilitate CRM success as it underlies the fusion of exploration of new customer knowledge and the exploitation of the extant knowledge (Crossan, et al. 1999) and establishes the apparatus conducive to team learning through organizational dialogue. It also provides a mechanism for synergistic value of shared ideas and an impetus to engage the customer, all leading to superior customer service and value. Following March (1999) and Kang et al. (2007), the evolution from organizational learning to customer value creation occurs with the application of both new customer knowledge (exploration) and the extant customer knowledge (exploitation) manifesting itself in improved service or product and or the introduction of innovative service or product.

![Figure 1 Antecedents and Consequences of Organizational Learning in CRM](image)

However, organizational learning needs to be nurtured in a company, and the accumulation of human capital, technology infrastructure and business analytics capabilities can constitute the IT asset platform (Ross et al. 1996), through which the organizational learning process for CRM can be actuated. Human capital plays a seminal role in the firm’s ability to acquire, hold, disseminate and exploit customer knowledge to gain competitive advantage (Rodriguez et al. 2003). Technology infrastructure refers to the hardware, software, and communication resources that enable customer knowledge to efficiently and
effectively flow through the firm, facilitating the exploitation of customer knowledge (Wang et al. 2013). Exploitation of customer knowledge through analytics capabilities (Payne and Frow, 2005; Liew, 2008) comes to fruition through interacting with customers and the deployment of that knowledge in subsequent customer interactions (Crook et al. 2011). Taken together, the IT assets can impact the extent to which organizational learning occurs in a firm, which can subsequently lead to increased CRM success.

Research Model and Hypotheses Development

Dependent Variable – Customer Value Creation

The research model for our study is shown in Figure 1. We adapt customer value creation as the dependent variable in our study. Customer value creation is defined as the benefit in terms of overall utility that accrues to customers when they acquire a product or service, net of what they pay for it (Smith & Colgate, 2005). Customer value however cannot be viewed in isolation of the firm. Since value is co-created for the customer and the business, customer value creation can be regarded as the sum of customer performance and business performance (Peltier et al., 2013).

Impacts of Organizational Learning on Customer Value Creation

Organizational learning is the establishment of information processes and capabilities that support the understanding of customers’ needs and wants driving efficiency and effectiveness in managing and sustaining customer relationships (Battor and Battour 2013). Peltier et al. (2013) also argues for the criticality of functional and cross-functional organizational learning in assessing the impact on customer data quality and subsequent data quality. Firms continuously strive to raise the level of organizational learning through acquisition, collection, dissemination and exploitation of knowledge with the express purpose of creating value (Kang et al. 2007). Organizational learning manifests itself when knowledge transfer is a consequence of shared interpretation resulting in competitive advantage and maximizing profits (Santos-Vijande et al. 2012). It is imperative in achieving both a higher level of customer value creation and a higher level of firm performance (Peltier et al., 2013). It can also act as a catalyst to generate a comprehensive view of the customer resulting in a higher level of customer value through better products and services (Akgüna et al., 2014). Therefore, we hypothesize that:

\[ H1: \text{Organizational learning has a positive impact on customer value creation.} \]

Antecedents of Organizational Learning

Business Analytics Capability

Business analytics encompasses customer databases, decision support systems and analytic modeling capabilities. Business analytics capability provides decision making on demand and in real time, by exploiting the latest advances in database technology (Acker et al. 2011), to drive customer acquisition and development (Bijnoit et al. 2010). It refers to the utilization of quality data to identify trends, formulate a business problem or opportunity, build mathematical models, and propose alternative solutions (Schiller, 2015). Business Analytics capability can contribute to higher organizational learning as firms pull customer data in real time to deliver critical insights that can be applied in core customer facing processes (Bijnoit et al. 2010; Acker et al. 2011). It provides the means to embed knowledge in interactions, tools and tasks (Argote and Ingram, 2000) and can be repetitively used to gain customer value. Therefore, firms can leverage such new insights about customers, to create new knowledge and learning (Holsapple et al. 2014). Hence, we hypothesize that:

\[ H2: \text{Business Analytics has a positive impact on organizational learning.} \]

IT Infrastructure

IT infrastructure is defined as the investments in hardware, software and communication systems in an organization. It refers to the physical infrastructure that is utilized to operationalize the CRM initiatives (Jayachandran et al. 2005). Given that the impetus behind CRM is technology regardless of its customer centricity (Kellen, 2005), it follows that technology infrastructure is a significant driving force in customer
value creation through large-scale storage of customer data. In the CRM context, IT infrastructure can facilitate bi-directional informational flow, assimilation and streamlining of information throughout the organization (Jayachandran et al. 2005). Therefore, firms with high IT capabilities can have the ability to acquire more knowledge about the customer, reflective of both exploratory and exploitative organizational learning dynamics through institutional memory (Kane and Alavi, 2007). Hence, we hypothesize that:

**H3: IT infrastructure capability has a positive impact on organizational learning.**

**Moderating Role of Human Capital**

Human capital is defined as the skills, competencies and intelligence of the employees of a firm (Shih et al. 2010). The role of committed employees in the successful implementation of CRM cannot be overstated (Shum et al. 2008). Smith (2008) emphasizes the significance of human capital in noting it is at the core of CRM in analyzing performance and trends in customer relationships (Garrido et al. 2011). Human capital can positively moderate the link between business analytics capability and organizational learning. Business analytics capability impacts organizational learning through the assimilation of new knowledge about the customer (Acker et al. 2011). Investments in human capital can provide far greater insights about the customer, when combined with sound business analytics capabilities. Skilled professionals can glean valuable insights about customers by extracting the right information. For instance, McGovern and Panaro (2004) maintain that success of CRM strategies depends on human capital in that all of the CRM initiatives converge to give expression in the form of organizational learning. Hence, we hypothesize that:

**H4: Human capital positively moderates the impact of business analytics capability on organizational learning.**

In addition, human capital can also positively moderate the link between IT infrastructure and organizational learning. IT infrastructure impacts organizational learning through the seamless collection and storage of customer information. Investments in human capital can improve customer data collection and storage, by providing more effective strategies for these activities (Hamelin, Chari, & Srivastava, 2012). For instance, high levels of skills necessary to develop, leverage, maintain and support customer knowledge (Chen & Ching, 2005) that flows through the IT infrastructure, can improve the impact of IT Infrastructure on organizational learning. Hence, we hypothesize that:

**H5: Human capital positively moderates the impact of IT infrastructure on organizational learning.**

**Proposed Methods**

We propose to conduct a matched-pair survey of our target sample, to alleviate concerns about common method bias (Podsakoff et al. 2003). Our sample will consist of senior executives in midsized or large firms, responsible for making technology and CRM decisions, such as CIO, Senior VP of IT, Marketing etc. Questions regarding the IT capabilities, infrastructure and human capital would be directed towards the IT executives, whereas data about the organizational learning and customer value creation would be obtained from the marketing/CRM executives in multiple rounds of data collection. The measures for the study would be adapted from pre-existing scales where applicable. Survey measures will also be validated using industry experts and through a pilot study, before proceeding to final data collection.

**Expected Contributions**

Our study provides three main contributions to the extant literature: the impacts of organizational learning on customer value creation, the impacts of technological capabilities on organizational learning, and the moderating role of human capital in the CRM context. We contend that by exploiting IT capabilities, organizations can obtain long-term learning and performance benefits. Future research can expand on our work by expanding the antecedent conditions and the mediators, such as strategic factors and knowledge and relational capital. Our study also has practical implications. As the success rate of CRM has been well known to be less than 50% (Coltman, 2006), this study can demonstrably show the
synergistic value of coordination and integration thus vastly increasing the probability of success. Therefore, our study provides valuable insights in CRM for researchers and practitioners alike.

REFERENCES


