

6-2014

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## Recommended Citation

Durgam, Pradeep and Sinha, Ankur, "Positive Disruptions Caused by SCRM Activities in the SECI process of Knowledge Creation: Insights from Four Case Studies" (2014). *BLED 2014 Proceedings*. 30.  
<http://aisel.aisnet.org/bled2014/30>

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## **Positive Disruptions Caused by SCRM Activities in the SECI process of Knowledge Creation: *Insights from Four Case Studies***

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### **Abstract:**

*Web 2.0 has been in the foray for a while playing an important role in threading business processes, various departments, systems and key stakeholders (within firms) to activate customer participation and involvement. In order to re-emphasize customer centricity, firms have been using SCRM (Social Customer Relationship Management) approach as a part of their CRM (Customer Relationship Management) strategy. The activities under SCRM are a major source for organizational knowledge creation that occurs due to a continuous dialogue between tacit and explicit knowledge. Also, various social platforms (operating for SCRM) where collaboration takes place acts as a shared context for knowledge creation. To comprehend the actions and limitations of a knowledge-creating firm thoroughly, this research paper examines the process of knowledge-creation by (1) revisiting Nonaka-Takeuchi SECI (Socialization, Externalization, Combination & Internalization) process to recognize how SCRM activities can be prolific in organizational knowledge creation (2) exploring positive disruptions created by integrating SCRM activities with four modes of SECI process for additional knowledge creation (3) analyzing case studies of four firms from consumer products sector that use SCRM approach and (4) discovering the elements under SCRM approach that satisfy 'BA' as a shared context.*

**Keywords:** SECI, Knowledge Creation, SCRM

## **1 Introduction**

In the past decade business world has been transformed into a knowledge intensive ecosystem. Though firms are aware of knowledge creation, only lately have they realized the importance of knowledge creation. Firms can create new knowledge themselves (internally) just with the support of their resources (employees, systems, strategies, etc.), (Nonaka, Toyama, & Konno, 2000) but there are boundaries and

limitations after which they cannot attain appropriate tacit knowledge for competitive advantage (Nonaka, 1994a). To consistently create new knowledge, firms must collaborate (externally) with the environment in order to expand its knowledge base and simultaneously withstand and amplify their competitive advantage (Prahalad & Ramaswamy, 2004). Furthermore, in order to adjust accurately with ever-changing dynamics of the market, firms have to acquire 'specific' knowledge from the environment to create new products and services. We, as humans (individuals) with variable capacities define this environment. Adding to it the knowledge intensive society has changed human thinking in a productive way and at the same time restructured business processes related to organizational knowledge creation (Mukhtar, Ismail, & Yahya, 2012). Individuals from both sides (organization and larger ecosystem) play a crucial role in knowledge creation using web technological advancements. From the organizations' side, human resources (employees) take active part to acquire and create new knowledge, and from the ecosystems' side, customers (as crucial stakeholders) share knowledge and experiences with the organization to help create new specific tacit knowledge. For this to happen firms should develop their knowledge creation capacity in order to positively provoke the customer to participate, collaborate and share their know-hows (Nonaka & Toyama, 2002). The more access organizations have to their customers, the higher is the knowledge creating capacity. And here, Web 2.0 known as the social web has created a smooth passage for collaboration with customers (existing and new). This social web has propelled the knowledge creating capacity through its features of user-generated content, social networking, wider reach, multiple-way communication and the ease of use (Faase, Helms, & Spruit, 2011). The core function of social web designed by organizations is to facilitate customers to participate and create new knowledge (Sawhney, Verona, & Prandelli, 2005a).

The significance of social web has been realized only after the functionality of CRM systems, which seems to have reached its capability limit of acquiring 'accurate' customer knowledge relevant to the marketplace (Baird & Parasnis, 2011). While CRM systems used for customer forecasting through historical or transactional knowledge (stored in the database) has lacked the swiftness in capturing the current customer experiences, the social web applications has filled the gap by acquiring and creating contemporary customer knowledge. The unification of social web into CRM activities (mainly CRM systems) has been striving to complete the connotation of SCRM approach (Reinhold & Alt, 2012). The SCRM activity that involves social media technologies (online communities, blogs, firms interactive web pages, emails, etc.) is an excellent source for knowledge creation that leads to an increase in specific organizational knowledge. Having said that, firms create knowledge by a constant exchange of tacit and explicit knowledge on collaborative platforms between organization and individuals (existing or to-be customers) complementing the Nonaka-Tekeuchi SECI process (Nonaka et al., 2000). The SECI model of knowledge creation has four processes; namely socialization (tacit to tacit), externalization (tacit to explicit), combination (explicit to complex explicit) and internalization (explicit to tacit). These processes are explained in the sections ahead. The core elements that define SCRM approach construct a shared context, known as BA' (BA' - (Nonaka & Konno, 1998)), where there is an online setting created for sharing and creating knowledge. That then explains how the implementation of SCRM approach has reduced the need of a physical space where two or more individuals have to be present in person to create knowledge, making the exchange of tacit and explicit knowledge virtual (online). Moreover, the introduction of SCRM activities (firm

specific-Social Media, blogs, online communities, etc.) has brought in positive disruptions in the regular pattern of SECI process of knowledge creation. Also, these disruptions have increased the ability to create additional organizational knowledge with higher relevancy. These disruptions too are explained in this paper and substantiated with evidence found in case studies.

The paper is structured as follows. The first section describes the dimensions of knowledge creation focusing specifically on SCRM. The second section theorizes and conceptualizes the influence of SCRM activities on SECI process. This section also explores the positive disruptions caused by integrating SCRM activities with four modes of SECI process for additional knowledge creation. It extends to identify the core elements of SCRM approach that represent 'BA' – a shared context for knowledge creation. The third part provides four case studies as evidence for SCRM activities being an excellent source for knowledge creation followed by the analysis of pattern change (positive disruptions) within SECI's process. The paper concludes with a summary and discussion, revisiting the main points covered and throwing light on future research.

## **2 Constituents of organizational knowledge creation in the socialized world**

### *Tacit and Explicit knowledge*

While explicit knowledge is termed to be objective and rational in nature, tacit knowledge is considered idiosyncratic, experimental and difficult to validate (Nonaka, Reinmoeller, & Senoo, 1998). That's perhaps why, explicit knowledge is expressed in the form of concrete instructions, documents, mathematical formulas, particular actions and guides and tacit knowledge comes in the form of beliefs, viewpoints, intellectual models, philosophies and principles (Nonaka, Krogh, & Voelpel, 2006). But there is a point where these two seemingly different concepts of knowledge collide (with the help an external factor - social platform) to create 'new' knowledge (Polanyi, 1966). For instance, idea generation happens in the minds of individuals (tacit knowledge) and a social collaboration between two or more individuals plays a significant role in developing these ideas further (making it explicit).

### **2.1 Social Web as the driving force for social experimentations**

A significant technological innovation that organizations have incorporated into their enterprise and specifically into their CRM strategy is the Social Web. This Social Web with its dynamic capabilities has helped organizations find ways to accommodate innovative methods of sharing and creating knowledge (Kaplan & Haenlein, 2010). To name a few, customer collaboration, two-way knowledge transfer, product/service specific discussions and feedbacks are the fundamental consequences of Social Web, which ultimately has lead to knowledge creation (Bolton et al., 2013). In addition, social networking sites, online communities, blogs and investments in enterprise 2.0 have offered platforms for Social Web to be prosperous. And because of these platforms there has been a huge influx of customer knowledge, which has allowed firms in saving costs, improving product/service innovation and redefining non-profitable products/services (Razmerita, Kirchner, & Sudzina, 2009). These Social Web platforms are facilitating the creation of new

organizational knowledge that allows customer retention, proper segmentation and campaign management, amongst others (Baird & Parasnis, 2011). To extend it further, knowledge creation on Social Web occurs through productive collaboration and constant sharing of experiences between disseminated groups within a firm and various communities outside the firm (Razmerita et al., 2009). However, the existence of Social Web will depend mostly on its capability to face the challenges of knowledge creations (Greenberg, 2010). Having said that Social Web is an excellent platform to connect two entities for business purposes; it can only be used as a channel and hence cannot be replaced or treated as a main application for core business (finance, operations, etc.) (Askool & Nakata, 2010). Therefore the applications of Social Web tremendously support the central functions of NPD, Marketing, Sales, Design and Services. However, the Social Web is signified by a set of websites and functions where the user (customer) with his or her participation is the primary driver for organizational knowledge creation. Also, these users have modified Web 2.0 as a living web. From a low interaction function like RSS feeds, wikis, tags, blogs, etc. to a high interaction function like Facebook, Twitter, online communities, organizational interactive feedback and interactive service webpages fall under the umbrella of Web 2.0. What makes this Web 2.0 a Social Web is the coming together of wisdom of online crowd, specific user generated content and collective intelligence to name a few.

## **2.2 The SCRM approach for customer knowledge creation**

An SCRM activity includes Internet based applications constructed on the technological and conceptual fundamentals of Web 2.0. To be firm specific, it is combined with various CRM processes and strategies, allowing the informal creation of knowledge. Also, certain business practices functioning under CRM strategy has evolved as socially enabled processes (Lehmkuhl & Jung, 2013). Due to its lightweight and technical feasibility (Levy, 2009), SCRM is described as an innovative notion that connects social media technology with CRM strategy. Although, social technology can support collaboration, it requires organizational users and customers to create knowledge for sharing. Although, there are boundaries when we discuss about knowledge management and knowledge creation just within firms (Dous, Salomann, Kolbe, & Brenner, 2005), but these limitations tend to fade out when creating knowledge, specific to the firm through SCRM activities (Roblek, Bach, Meško, & Bertoncelj, 2013). Having said that, Social Media majorly defines SCRM where collaborators are not particularly asked to share knowledge, but this knowledge is automatically created by its daily usage (Jr, 2007). Therefore, effective structuring of SCRM activities in accordance with CRM processes builds a foundation for gathering direct understanding into thoughts, objectives and behavior of the users involved. Before the advent of Social Media, CRM strategy for a firm included processes and technologies configured to effectively handle customer relationships as a source for unearthing maximum value from their customers over a certain period of time (Akroush, Dahiyat, Gharaibeh, & Abu-Lail, 2011). Also the past literature highlights the fact that firms' CRM strategies mainly focused on the operational responses required for managing their customers (Shaw, Subramaniam, Tan, & Welge, 2001) (Liao, Chen, & Deng, 2010) (Frow, Payne, Wilkinson, & Young, 2011). But with the emergence of social media, there is a significant two-way collaboration where firms are providing customers a virtual platform to communicate,

share their experiences and enable them to make rational judgments on how to collaborate and ultimately create knowledge for the firm.

## **2.3 The Pioneering model for knowledge creation**

### **2.3.1 Revisiting Nonaka's SECI process of knowledge creation**

In this knowledge intensive society firms are dealing with a constantly changing environment to process information and simultaneously create knowledge. Firms create knowledge through a dialog that occurs between explicit and tacit knowledge. Eventually, through this process of knowledge conversion, knowledge is created and expanded (in quality and quantity) (Nonaka, 1994b). To elaborate further, this research revisits the four processes of knowledge conversion and creation:

- 1) *Socialization process*, where tacit knowledge is shared between two or more individuals.
- 2) *Externalization process*, where articulation of tacit knowledge into explicit knowledge takes place making it the first stage of knowledge crystallization.
- 3) *Combination process*, which engages conversion of explicit knowledge into more complex sets explicit of knowledge.
- 4) *Internalization process*, where the newly created explicit knowledge is converted into tacit knowledge.

(Nonaka & Toyama, 2003) (Nonaka, 1994a) (Nonaka et al., 1998)

This SECI process highlights dynamic processes of self-transcendence, where firms' resources transcend their limitations by engaging in collaboration processes with their key stakeholders (customers) (Nonaka et al., 1998). In this contemporary world, communities of interaction provide a source for development of new knowledge. These social elements existing on technological advancements outline a new dimension for organizational knowledge creation. The process of creation begins when all four modes of knowledge creation are structurally organized to form a repetitive cycle. The basic comprehension is that individuals have to be present on both ends to create knowledge. The firms specify a context where it provokes and nurtures creative individuals to collaborate, share and create knowledge (Nonaka, 1994a).

### **2.3.2 BA as a shared context: The Ontological Platform for Knowledge Creation**

Ba, a Japanese term is a supportive space (physical or virtual) defined by a context for knowledge creation (Nonaka et al., 2000). 'Ba' can be perceived as a shared mental space, which triggers knowledge creating process for accumulating collective intelligence. Data, information and knowledge, all are rooted in these spaces and in the minds of individuals that are a part of these spaces. In these spaces or platforms, knowledge is attained through one's own understanding of the know-how of others. Ba can arise from groups or communities or between any two individuals. Therefore, Ba as a shared context gives the necessary support for SECI Process. There are four

types of BA that integrate with SECI Process and provide platforms for multi-dynamic knowledge creation (Nonaka & Konno, 1998).

*Originating BA (linked with Socialization phase):* Individuals communicate feelings, experiences, emotions, and conceptual models, which is the beginning of knowledge creating process or Originating Ba.

*Dialoging BA (linked with Externalization phase):* To create a dialoging Ba, there is need for choosing people with the right mix of specific knowledge and proficiencies, critical to activate conversion.

*Cyber BA (linked with Combination phase):* Explicit knowledge is combined with existing knowledge further creating new explicit knowledge, which is distributed in the firm.

*Exercising BA (linked with Internalization phase):* Enables the conversion of accumulated explicit knowledge (from the above processes) to tacit knowledge.

(Nonaka & Konno, 1998)

### **3 The influence of SCRM approach in SECI process for Knowledge Creation**

#### **3.1 Socialization-SCRM approach**

Socialization is termed as conversion of tacit knowledge to tacit knowledge derived from shared experiences by spending time in the same environment. This environment has so far largely been defined in terms of physical space but now tacit knowledge can also be obtained from a 'virtual' space, beyond organizational boundaries (M. Vuori, 2012). When firms frequently yield benefits from tacit knowledge rooted in customers through virtual ideation labs, collaborative online communities and personalized online chat application (Sawhney, Verona, & Prandelli, 2005b), new tacit knowledge is created. It is created over discussions and negotiations where different individuals share their experiences that are available for new interpretation resulting in new meanings (Shang, Li, Wu, & Hou, 2011). This process establishes collective intelligence bringing together variety of knowledge bases and capabilities representing firm's intellectual capital (Swan, Newell, Scarbrough, & Hislop, 1999). A significant way to nurture knowledge creation within a firm is to introduce ways for individuals to interact both within the company as well interact with external stakeholders (customers). For example, the various online resources under a specific firms' tag name facilitate content generation and community building postulating a brand new platform for knowledge exchange, knowledge creation and network development (Mahr & Lievens, 2012). Having said that the SCRM approach that includes the abovementioned activities amongst others, highlights innovation, discussions, product debates and feedbacks as progressively interactive (Reinhold & Alt, 2011) (Zyl, 2009). That's because these systems connect heterogeneous groups of individuals both within the organization as well as outside (Mahr & Lievens, 2012) (Bolton et al., 2013). As social media are used for creating, sharing and exchanging various kinds of content, the users contribute and provide value to the company's knowledge creation capability thereby highlighting the role of SCRM approach in Socialization.

*Originating BA:* Collaborative online communities, virtual ideation labs, personalized online chat, etc.

### **3.2 Externalization-SCRM approach**

Externalization is the process of articulating tacit knowledge into explicit knowledge. That is to say, crystallization of knowledge begins when tacit knowledge is made explicit. Considering firm's personalized blogs, web pages, wikis, online feedback and service webpages, amongst others are applications that support externalization process. These online applications offer freedom of expression and a source to acquire customers' personalized knowledge that is disseminated in discussions across web platforms. From an externalization point of view, collaboration through SCRM activities contextualizes the created content. Firms' interactive (online) feedback page and customer service webpage provide an excellent source of actionable collective intelligence, as they offer a place for social interaction (Ahlqvist, Bäck, Heinonen, & Halonen, 2010). That's crucial because in a social media space sharing one's unique know-how is the central source of tacit knowledge. For instance, companies like Trip advisor, Google, Apple, Dell, Starbucks, Procter and Gamble (Connect and develop) facilitate a constant knowledge creating process from socialization and externalization of knowledge (through online platforms), reiterating the growing significance of SCRM activities.

*Interacting BA:* Service and Network interactive webpages, blogs, interactive feedback space.

### **3.3 Combination-SCRM approach:**

Combination signifies conversion of explicit knowledge into further complex sets of explicit knowledge, creating new set(s) of knowledge. Therefore, re-organizing of existing knowledge by the process of sorting, accumulating, re-classifying and re-conceptualizing of explicit knowledge builds new knowledge (Nonaka, 1994a). Having said that, web based application has also contributed where combination of explicit knowledge is efficiently handled in collaborative environments by exploiting social media networks, web portals, intranets, groupware and CRM databases (where knowledge is retrieved by the already defined functions and modeling process) (Nonaka et al., 2000). Hence, synergies and knowledge derived from online platform and the organizational database has the capacity to create new knowledge (Alt & Reinhold, 2012). And with the current Social web advances such as wikis, blogs and collaborative platforms, give prospects for firms to develop their internal operations and collaborate with their business partners (Prahalad & Ramaswamy, 2004). Therefore, practices of social media can be exploited for improving existing business processes, creating new business models and banking on new sources of knowledge. Furthermore, this combination process delivers broad domain coverage, diversity of opinions, and good amount of specific knowledge (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Higher the inflow of social knowledge (explicit) within an organization - better is the functionality of organization systems. That's because knowledge conversion encompasses the use of social media processes to combine explicit knowledge within individuals. For example, mash-ups, a social tool is used to extract content from various online sources and reproduced in a new form (Mohan,



Choi, & Min, 2008). Here collective intelligence plays an important role by deciding what is appropriate via feedbacks, online reviews, ratings, recommendations and criticisms. Also, well-expressed artifacts are connected and combined in models through social tools such as RSS syndication, social bookmarking, search engines, etc. (V. Vuori & Okkonen, 2012). Combination is thus embedded in knowledge processing of both existing organizational knowledge and social knowledge, derived from an efficient use of SCRM approach.

Cyber BA: Contemporary Social Media resources, online communities, etc.

### **3.4 Internalization-SCRM approach:**

Internalization is the process of expressing explicit knowledge into tacit knowledge. Once explicit knowledge is created from externalization and combination, it is shared among departments of the firm and then converted into tacit knowledge by individuals working in those departments. Personal experience (tacit), existing organizational knowledge (explicit-product, norms, service, transactional, historical, etc.), real world knowledge (explicit) and experience sharing from fellow functional departments (tacit), to name a few are expended in the Internalization process finally obtaining tacit knowledge for product/service innovation and development. To add to that, the Social web provides a flexible online space for firms to be an innovative entity by collaborating with consumers, sharing more knowledge in a collective way and then taking constructive advantages of the consumer's wisdom for product innovation (M. Vuori, 2012). From playing a passive role, online consumers with the support of the social web are becoming active participants in one or all New Product Development (NPD) phases' (Sawhney et al., 2005b). To complement it further, online platforms created by firms offer a space for online discussion (forums), for product design debates and for concept testing and product support activities. Consequently, within an online community, customers spontaneously disclose knowledge that incites others to further build on it with their own experiences (Kaplan & Haenlein, 2010). Thus, Social web creates a setting for individual customers to display their product-related knowledge and problem-solving skills (tacit knowledge made to explicit), which at the end benefits both, organizations and customers.

*Exercising Ba:* Online design platforms, social media resources, online review and feedback sites, etc.

### **3.5 Positive Disruptions within the SECI process**

The integration of SCRM activities has given different departments of an organization the opportunity and freedom to stay connected with their target customers at their discretion to create knowledge. So, different departments are connected online to understand 'live' dynamics of the users (ongoing participation, live feedback, co-creation, etc.) through which they tend to optimize their business processes and become more customer oriented. This paper establishes that incorporating SCRM activities within four modes (SECI) of knowledge conversion and knowledge creation leads to positive disruptions in standard patterns. According to (Nonaka et al., 2000) The standard process within SECI process is the conversion of tacit to tacit knowledge, tacit to explicit knowledge, explicit to explicit knowledge and explicit to tacit knowledge. Every mode with the standard pattern of knowledge conversion between tacit and explicit reacts to the continuous feed of customer knowledge accessed through social platforms. This brings in disruptions in one or all stages of

knowledge creation. Also, the knowledge acquired through social platforms is mostly tacit in nature. Integration of such tacit knowledge at different steps of SECI process positively alters direct conversions from Tacit→Tacit, Tacit→Explicit, Explicit→Explicit and Explicit→Tacit (Figure 1). For instance, if tacit knowledge from SCRM approach is added into combination stage, then the standard knowledge conversion process is positively disrupted and knowledge conversion flows as Explicit→tacit→explicit→....→Explicit (Figure 1). Similar positive alterations have been observed in other stages of SECI process and have been explained later in detail with the help of case studies. Different firms use a permutation of the four modes of SECI (with an integrated SCRM approach) either separately or together. If these modes are used efficiently (all together) then the scope of knowledge creation increases tremendously.

It is important to note that these positive disruptions do not change SECI process in any way, but only adds value to the final outcome at every stage by creating additional knowledge.

Possible Influence of Social Web on the standard pattern of SECI process	
<b>Socialization: TACIT to TACIT</b>  Social Platforms as BA' and source <ul style="list-style-type: none"> <li>• Online chat</li> <li>• Facebook</li> <li>• One to one online interaction</li> </ul> <u>Possible influence of Social web</u> <ul style="list-style-type: none"> <li>• TACIT → tacit or tacit or tacit...→TACIT</li> </ul>	<b>Externalization: TACIT to EXPLICIT</b>  Social Platforms as BA' and source <ul style="list-style-type: none"> <li>• Personalized chat</li> <li>• Firm's Internal online communities</li> <li>• Online games and competitions</li> <li>• Use of Social analytical tools</li> </ul> <u>Possible influence of Social web</u> <ul style="list-style-type: none"> <li>• TACIT→explicit or tacit or explicit... →EXPLICIT</li> </ul>
<b>Internalization: EXPLICIT to TACIT</b>  Social Platforms as BA' and source <ul style="list-style-type: none"> <li>• Online blogs</li> <li>• Online chats (old and new)</li> <li>• Observing conversations between users</li> </ul> <u>Possible influence of Social web</u> <ul style="list-style-type: none"> <li>• EXPLICIT→explicit or tacit or explicit...→TACIT</li> </ul>	<b>Combination: EXPLICIT to Complex EXPLICIT</b>  Social Platforms as BA' and source <ul style="list-style-type: none"> <li>• Online discussion</li> <li>• Online Feedback and Review</li> <li>• Online opinion websites</li> </ul> <u>Possible influence of Social web</u> <ul style="list-style-type: none"> <li>• EXPLICIT→explicit or tacit or explicit---→EXPLICIT</li> </ul>

**Figure 1** Possible influence of Social Web on SECI process

## 4 Case Studies explaining the knowledge creation process

### 4.1 Designing the cases for analysis

This study through a qualitative research intends to contribute to the theory of organizational knowledge creation (SECI process) by introducing the SCRM approach and its key elements that facilitate creation of more knowledge. This research focuses on organizations that have an active SCRM strategy and aims to understand how the use of SCRM approach generates crucial customer knowledge for various departments and turns into an asset for the entire firm. The study maps the process of SCRM activities within the existing SECI process and comprehends how

Socialization, Externalization, Combination and Internalization process unfold in the online world. Keeping the focus on SECI process of knowledge creation, the interview questions (appendix 1) were both comprehensive and in-depth. For the purpose of this paper, four case studies representing four companies (15 interviews) from Consumer Products industry have been chosen. The case studies range from an increasing level of dependence on SCRM activities for customer knowledge creation to an already established SCRM approach as a principal pillar for CRM strategy. An organization where SCRM approach is already reputable, customer knowledge is created and used extensively, directly building the organizational knowledge for competitive advantage.

## **4.2 Profile of the companies interviewed**

Abiding by confidentiality norms of organizations included in this research, their names have not been disclosed. Nevertheless, brief descriptions about the companies have been provided.

- 1) A Mobile Tele-systems company that manufactures mobiles, Internet dongles and data products has started focusing on SCRM activities in the past year to acquire and retain customers. They are in the initial stages trying to involve customers and their knowledge in few business activities.  
Tools used: Facebook, E-Commerce Plugin and Online Chat Operations.
- 2) A Cellular company with an integrated GSM operator providing 2G and 3G services has been using social media for online brand management for the past three years.  
Tools used: Service Delivery online tool, Facebook and Personalized Blog.
- 3) A leading Brewery has been active online for more than half a decade (for brand awareness) with activities involving almost 6 million users on Facebook.  
Tools used: Facebook, Twitter, YouTube, Instagram, etc.
- 4) A widely renowned and trusted brand name in house and kitchenware products have been using Social Media even before the term was coined. The company is closely connected with its online customers at almost all levels.  
Tools used: Dedicated webpages on their website, Microsites, Blogs, Facebook.

## **4.3 Assessment and Findings**

The analysis of case studies examines if knowledge is indeed created through SCRM approach and if it fits the SECI process for knowledge creation. The concepts and linkages mentioned above in the literature review have been kept in mind and used while evaluating all case studies. The evaluations are explained in Table 1. The interviews were conducted keeping SECI process in mind and accordingly the findings from the analysis were fitted into respective knowledge creating dimensions across Socialization, Externalization, Combination and Internalization.

	Mobile & Telecom FIRM A	Cellular FIRM B	Brewery FIRM C	Home & Kitchenware Storage FIRM D
Department	Social Media & digital marketing team.	Branding.	Social Media.	SPOC's from all departments, marketing, campaign, dedicated online team.
Online Ba: Social Platforms used	Facebook, online chat, E-commerce Plugin.	Service delivery online tool, Facebook, personalized blog.	Facebook, Twitter, YouTube, Instagram, Flickr.	Dedicated webpages, microsites, Mouthshut.com, Facebook, Pin-interest, blogs.
Socialization (Tacit-to-Tacit)	Use of Personalized online chat with customers and suppliers (providing trending knowledge).	Extensive approach of One to one interaction with customers regarding brand- philosophy, engagement, ideology discussions, ideation for social problem.	Very little or no one to one or focus group online interaction.	Priority to personal complaints generated online, extensive online dialog for getting specific reasons. Understanding cues from certain online interaction about developing products.
Externalization (Tacit-to-Explicit)	Online Sharing of service problems and picking up discussion about their brand image for brand development. Online design competition with design agencies, customers and experienced designers for developing new designs for their products (dongles, phones, etc.).	Sharing network problems and delivery problems through online collaboration.  Extensive use of Social Media listening tools to capture keywords, emotions, etc.	Nothing is tacit as the product is a 'Happy product' and mostly generates positive reviews on their website, on Facebook and on Twitter that is open to all.	Use of Social Analytics to analyze traffic and navigation path, number of hits and likes on Facebook and their website, social demographics, etc. 24/7 monitoring of online community and webpages.  Frequent innovative Online water games provoking 360 degrees dialog with their customers.
Combination (Explicit-to-Explicit)	Digital marketing team connect with other departments and third party design agencies through their in house online platforms and also have personalized meetings with the customer insight teams which is also connected online. Limited or no use of Social Media at this stage.	SPOC's from every department with the relevant skills and knowledge are connected online.	Updating the sense of emotions & positive feedback on their webpages and also connect through online communities. Having Online games (such as Beer Commandments Contest) to get a better sense of their product popularity and which also helps them create new merchandise. Core departments (Marketing, Branding, Communication, Sales, Campaign, etc.) constantly connected online.	High degree of combining knowledge from both CRM database and Social Media.  Extensive use of SEO, SEM, Mouthshut.com relevant to Subject Matter Expert, SPOC's, NPD teams, sales teams, amongst others.
Internalization (Explicit-to-Tacit)	Nothing is developed with the online customers.	Co-Creating all Brands with online customers	No co-creations with customers for Beer flavors or bottle style etc.	Extensive online debating on feedbacks and reactions related to new products. Regular Implementation of colors trends, seasonal trends, that is acquired through their customers and continues revisiting of all the online communities. As such it is not a formalized process but the online customer knowledge is used during all NPD phases.
Change in Pattern at different stages of SECI process	In Externalization stage. When compared to Tacit to Explicit ( $T \rightarrow E$ ), the change is $T \rightarrow E \rightarrow E \rightarrow T \rightarrow E$ .	In Combination stage. When compared to Explicit to Explicit ( $E \rightarrow E$ ), the change is $E \rightarrow T \rightarrow E$	In Combination stage. When compared to Explicit to Explicit ( $E \rightarrow E$ ), the change is $E \rightarrow T \rightarrow E$	In Combination stage. When compared to Explicit to Explicit ( $E \rightarrow E$ ), the change is $E \rightarrow T \rightarrow E$ In Internalization. When compared to Explicit to Tacit ( $E \rightarrow T$ ), the change is $E \rightarrow T \rightarrow T$
SCRM Integration level	Low integration	Medium integration	Very Low integration	High integration
Knowledge Created	New Designs, best practices (about common and complex network and service issues)	Brand knowledge, emotions, knowledge through positive and negative feedback	Understanding the day-to-day popularity and the sales growth.	Product knowledge, current trends, ergonomic knowledge, sales knowledge, etc.

SPOC-Single Point of Contact  
T-Tacit  
E-Explicit

**Table 1.** Four Case studies showcasing the influence of SCRM approach on the SECI process for knowledge creation

### 4.3.1 Influence of SCRM approach

There is an evident use of the SCRM approach in all the four cases. Various

departments engage with their customers or target groups through social web to extract as much knowledge as possible. Firms on the other hand provide their customer with knowledge about their brand ideology and philosophy, about problems and issues through online contest and competitions. Customers and their knowledge via SCRM activities are taken seriously, as shown in all modes of knowledge creation. Table 1 summarizes the knowledge conversion at different stages of the SECI process for the companies considered in this study. The important section to be considered is the ‘change in pattern’. Observing at the Externalization, Combination and Internalization mode, SCRM activities tend to change the regular pattern of knowledge conversion and knowledge creation.

Socialization (two or more users interacting online to share tacit knowledge) is quite straight forward and prominent in Firm ‘A’, ‘B’ and ‘D’, where they use one-to-one personalized online interaction through their online chat systems (OCS, Facebook, etc.). While the main interaction between customers and Firms ‘A’ & ‘B’ relate to service and network issues, for Firm ‘D’, it relates to personalized chat for complaints and trend updates. Both kinds of feedback help the firms to realize the contemporary undercurrents about their brand and products in the market. The ultimate goal is to share tacit knowledge and receive as much as tacit knowledge as possible.

SCRM activities alter Externalization too. It is observed that while Firm B uses Social Media listening tools regularly to pick up keywords on emotions, beliefs, thoughts and single word feedbacks, Firm ‘D’ relies on Social Analytical tools to analyze user navigation path, time spent, buying pattern, social demographics, amongst others Table 2.

	FIRM A	FRIM B	FIRM C	FIRM D
<b>Socialization</b>	T→T	T→T	T→T	T→T
<b>Externalization</b>	T→E→E→T→E	T→E	T→E	T→E
<b>Combination</b>	E→E	E→T→E	E→T→E	E→T→E
<b>Internalization</b>	E→T	E→T	E→T	E→T→T

**Table 2.**

T-Tacit  
E-Explicit

For instance, Firm ‘A’ tried to create dongle designs from tacit knowledge acquired from online space (by making it explicit within the company). Having hit a roadblock, the design team decided to include another layer of SCRM activity and introduced an online design competition (explicit). Online customers including design experts and design agencies were allowed to participate. The successful contest helped Firm ‘A’ collect huge amount of quality designs and gave them a freedom to choose the best designs (tacit). These designs were once again made explicit throughout various departments for further development (T→E→E→T→E). There were more tacit and explicit conversions in order to strengthen the externalization process conclusively leading to explicit knowledge creation.

Combination plays an important role in enhancing organizational knowledge. Although Firm ‘B’ ‘C’ & ‘D’ have historical knowledge (explicit) in place, the SPOC’s (single point of contact), marketing, sales, communication, NPD teams, etc. play a crucial role in constantly being connected to Social Web extracting specific live feed (tacit) and constantly sharing it within the organization (E→T→E). It is observed that firms are constantly looking for tacit knowledge

from the online world and evaluating their previously acquired knowledge (explicit) and making sure that it has been shared throughout the organization.

In Firm 'B' & 'D', Internalization mode achieves a logical end. In Firm B, all the SPOCs are connected to each other and also with the customers to co-create a brand strategy that stands out when compared to other competitors. In Firm 'D', the product development team takes online reaction (tacit), color trends (tacit), etc. into account and revisits all online communities before producing the product (tacit) ( $E \rightarrow T \rightarrow T$ ). It is evident from the cases that SCRM activities are monitored by a Social Media agency (controlled by Marketing department) or the Marketing and Branding department itself staging that SCRM has quickly matured and integrated well across firms at varying degrees.

### **4.3.2 Elements that constitutes BA' as a shared context**

In all the four cases, it has been observed that the online space provided by firms significantly constitutes a shared context and satisfies BA'. At first, considering the originating BA, (Firm 'A') there is an online chat option for network and service issues (context created by the company) and therefore customers have a personalized online communication sharing their experience about network speed and service issues. Firm 'B' has created a personalized blog and a Facebook page (Brand context) to push its brand and has a personalized interaction about brand ideology and at the same time understanding the market perception about their products. For Firm 'A' a specific design competition is conducted on the online platform, which represents the interacting BA' and for Firm 'D' their Social Analytical tool is coded specifically to track the online action of users (navigation path, time spent online, etc.). In Cyber BA', the SPOCs from Firm 'B' and Firm 'D' have a flexible online space (changing their context as per the need of the hour). Firm 'B' and Firm 'D' best fit the Exercising BA' as they create an online space sharing existing knowledge about a specific brand and product respectively. Online users aware and interested (in the brand or product prototypes) participate and share more knowledge via feedback and reviews. This feedback and review collected is used to build new unique products (Firm 'D') and redefine a brand (Firm 'B').

### **4.3.3 Integration level of SCRM approach**

The integration of SCRM activities differs in four case studies. While Firm 'A' proactively connects with its customers through its Social Media unit for feedback and product design, Firm 'B' employs SCRM activities largely for branding its ideology and creating brand awareness. Firm C uses SCRM to increase its products' (Happy Brands) sales by attracting customers through Online Brand Games and convincing them to buy more Beers, but does not use online customer knowledge in developing flavors or designing bottle size and colors. That is unlike Firm D, which integrates online customer knowledge in all phases of product development.

### **4.3.4 Knowledge Created through the SCRM approach**

This research shows that knowledge is created extensively in all the four cases. In Firm-A, new designs, trending knowledge to specific network and service issues are created. Online customer perceptions for Firm B's brands are significantly given importance and knowledge is created through personalized online chat on network and service issues. Also SPOCs from every department are looking out to extract as much knowledge as possible. In Firm C, there is huge knowledge creation as the beer products produce positive emotions and indulge their target customers in Beer games. Firm D, is the highlight among all four as knowledge creation is the motto and there is high dependency on customer knowledge from multiple sources.

## **5 Conclusions & Discussion**

In this research paper the varying knowledge creation capacities of SCRM approach have been investigated with Nonaka's SECI process as reference. This research analyzed and showcased the importance of SCRM approach as an excellent source for knowledge creation through case studies. It also linked the concepts and key literature of SCRM with Nonaka's pioneering model of knowledge creation.

This research has described the regular pattern and process of SECI model. It explains how firms (mentioned as case studies) in the quest of acquiring additional tacit knowledge for extensive knowledge creation, integrate SCRM activities leading to a change in the regular pattern of SECI process. This paper terms these changes as 'Positive Disruptions'

All four case studies were different in nature and had varied reasons to expand SCRM approach. While some were risk averse, others invested and relied on SCRM approach and led by example. This paper established a two-pronged impact of SCRM approach – at an industry level and in the academic world. The research identified SCRM approach as an important business activity or process that can certainly benefit the firm beyond limits. It was observed that departments (within firms) that stayed closely connected with social media units had better and consistent access to their consumers and that online consumer connect differed in all four case studies with a corresponding varying degree of SCRM integration.

The earlier mentioned 'Positive Disruptions' were triggered by SCRM activities and the platforms on which they were carried out. It can thus be said that all social media platforms and elements that constitute the Social Web have been identified as a shared context representing BA'.

This research forms a base for further analysis of SCRM approach. New research hypotheses can be developed in SCRM and tested within organizations from different sectors. It will be interesting to document new dimensions of SCRM in the field of organizational knowledge creation. Research can possibly integrate evolving SCRM approach with the core pillars of CRM Strategy – namely, marketing, sales, new product development (NPD) and new service development (NSD). Findings of this paper can be used for future research to build a strong academic literature around SCRM.

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## Appendix 1

List of Questions	
1.	How do you use social media to interact with your customers? And how has your social interaction evolved over the years?
2.	What are the online methods and tools that you use?
3.	What are the types (formal or informal)/platforms of interaction you have with your customers?
4.	Could you please walk me through process of customer interaction or collaboration?
5.	What are the others departments, business units and people connected with the social media platform within your organization and how does the customer knowledge get distributed to them?
6.	How do you process the knowledge or data that you get via social media (data categorization)?
7.	What has been the traditional way of collecting customer knowledge and what is the reason for this shift towards social media platforms?
8.	How strong is the online space that you have created?
9.	You might be having your own New Product Development (NPD) process and phases. Does the knowledge get disintegrated across these different NPD Phases? How?
10.	Do you combine Historical data with the new knowledge created through Social Media (Historical data=Transactional data or the data collected through traditional way and accumulated in the companies database)?
11.	What was the product failure rate initially with respect to Historical data when compared to knowledge created through social media?
12.	Define or explain your structure for Social Media/SCRM approach
13.	Can you give me an example of a case study? (Success or Failure)