Preface

In 21st century global environment, knowledge is considered to be the most important strategic resource in organizations (Uziene, 2010) and the management of this knowledge is considered critical for innovation and to attain competitive advantage (Drucker, 2001). To remain innovative managing knowledge successfully has become one of the greatest organizational challenges today. Organizations operate in all the areas through people and it is their skill and knowledge which need to be cultivated and then leveraged to create new innovative product. Knowledge exists and is shared at different levels in organizations. Knowledge acquires greater value when it forms part of knowledge creation or transfer process. The success or failure of an organization is directly related to the way in which knowledge is managed (Rana and Goel, 2015). If organizations have to capitalize on the knowledge they possess, they have to understand how knowledge is created, shared, and used within the organization. Knowledge specific to organizations, such as what employees know about organizational processes, products, customers and their competitive environment is called organizational knowledge. Organizations generally do not manage knowledge well and they behave “much like individuals because they too know more than they put to use” (Wellman, 2009). Any organization’s success will finally depend on the speed at which it can generate, capture and disseminate new knowledge and then use this knowledge to develop capabilities that cannot easily be copied by competitors.

In organizations, there are two types of knowledge, namely explicit (tangible) and tacit knowledge (intangible). Nonaka (1990) described four knowledge conversion processes viz. socialization, externalization, combination, and internalization, in the form of SECI model. Each process involves converting one form of knowledge (tacit or explicit) into other (tacit or explicit). Knowledge Management (KM) is a systematic and integrative process of coordinating organization-wide activities of acquiring, creating, storing, sharing, diffusing, developing, and deploying knowledge by individuals and groups in pursuit of major organizational goals (Rastogi, 2000). Every organization has its own way of dealing with data, information and knowledge and it creates its own structures, jobs and systems for that purpose (Nonaka et al., 2000). Therefore, there are no standard methods for leveraging knowledge; the best way is to start with the existing structures and methods and then apply them effectively to create new products and services to achieve the organization’s business objectives’ (Goel et al., 2010a).

Knowledge management involves all aspects of an organization - social, technological and human. To develop new product in organizations, managers must continue to develop new knowledge, skills, and experience within their workforce. InFact, we can say that knowledge management is an important factor for the product innovation in any organization in present era of knowledge economy. Knowledge management is being defined into three dimensions viz. KM processes, KM effectiveness and socio-technical support (Lin, 2007). KM processes are further categorised into four factors namely knowledge
acquisition (driven by strategy in which an organization determines what knowledge is needed, what it has and then fills in the gap by developing new knowledge or acquiring it); knowledge conversion (involves organizing, structuring, storing, combining, and linking digital storage such as documents and images with knowledge units); knowledge application (process of making knowledge active and relevant for the firm in creating value) and knowledge protection (ability to protect organizational knowledge from illegal or inappropriate use or theft).

Effective management of the knowledge is considered essential to success in contemporary organizations (Chen and Chen, 2005). Knowledge management effectiveness is categorized into two factors viz. individual-level effectiveness (measures whether employees receive and understand the knowledge required to perform their tasks) and organization-level effectiveness (improving organizational innovativeness and performance). KM effectiveness is measured in terms of realizing successful outcomes of KM processes, including generating, sharing and applying knowledge, increasing knowledge satisfaction and enhancing organizational performance (Gupta and Govindarajan, 2000; Chou et. al. 2005). The present book discusses as to how successful social media resource strategies pave way for knowledge management and promote creativity and innovation within and among employees in the organization.

Knowledge is first acquired in the human brain and then transmitted within the organization. According to Nonaka (1994) knowledge creation is a spiral process of interactions between explicit and tacit knowledge. These two forms of knowledge are complementary to each other and both are crucial to knowledge creation. The interactions between them lead to creation of new knowledge. The combination of the two categories makes it possible to conceptualize four conversion patterns. The four modes of knowledge conversion interact in the spiral of knowledge creation. The spiral becomes larger in scale as it moves up through organizational levels and can trigger new spirals of knowledge creation. Nonaka (1990) described four knowledge conversion processes in the form of SECI model that is socialization, externalization, combination and internalization. Each process involves converting one form of knowledge (tacit or explicit) into other (tacit or explicit). Knowledge conversion is a social interaction among individuals and is not confined within an individual. The ability to create new knowledge enables organizations to respond quickly and effectively to a changing environment.

Socialization involves capturing knowledge through physical proximity. Knowledge is acquired from outside the organization through direct interactions with suppliers and customers. Capturing tacit knowledge embedded within the organization by walking around inside the organization is another process of acquiring knowledge. In this way, organizations achieve success if they create new knowledge spread across the organization and incorporate it into new technologies and products (Nonaka and Takeuchi, 1995). In his study Rai (2011) developed a theoretical integrative framework for organizational knowledge management. He presented a new framework by modifying the ‘competing value framework’ and added a new dimension which represents ethical and trusting culture and then integrates it with the SECI model of knowledge creation and conversion. He identified the conceptual parallels between the two frameworks and analyzed the interaction effects between the dimensions. The two modes of knowledge creation which employ explicit knowledge as an input represent ‘exploitation’ processes. The other two modes which use tacit knowledge as an input represent ‘exploration’ processes.

In the present book authors have addressed the theme based on the premise that in the present knowledge economy, knowledge is converted through social media also i.e. Facebook, Twitter, YouTube, wiki, communities, blogs, and LinkedIn, etc., and social media strategies play a vital role in new knowledge creation and establishing the knowledge networks which is an important stage for product innovation. Social media has transformed and revolutionized the whole scenario of knowledge creation, transfer,
sharing, protection and dissemination. It has integrated all the stakeholders of innovation eco-system at one platform.

In the present juncture creation of new knowledge has undergone sea change vis-a-vis the concepts propounded by Nonaka (1990) and Rai (2011). In our opinion during all phases of knowledge creation and conversion either in ‘SECI’ processes as explained by Nonaka (1990) or in ‘exploitation and exploration’ processes as inculcated by Rai (2011), social media has started playing pivotal role as far as connecting innovator to manufacturer to supplier to seller to consumer to innovator is concerned as shown in conceptual framework of social media enabled SECI process given below. The whole book is based on this proposition.

Socio-technical support is further defined in the form of organizational support and IT-diffusion. Social media enables new modes of communication between an organization’s employees and facilitates knowledge-sharing. Its goal is to improve communication, organizational efficiency, and individual effectiveness. In discussing social media as a vehicle of transformational leadership this book reveals untapped benefits of social media in knowledge sharing and innovation context and examine where and how it could be adopted. Organizational leaders are now seeking ways to share knowledge with both internal and external stakeholders driven by concerns such as innovating new products, the impending retirement of baby boomers and a host of other organizational challenges (Rana and Goel, 2014). Social media addresses this problem head-on and provides flexible, agile, and intuitive solutions for connecting people with people and facilitating coordination, communication, and collaboration. Knowledge management and the role of social media strategies in product innovation are still in their infancy.

Goel and Rastogi (2011) examined the role of social media as to how it helps in sharing knowledge among knowledge workers particularly within the Indian knowledge intensive organizations and whether creating an environment that encourages and supports knowledge sharing among employees provides an organization with competitive advantage. They also investigated the reasons and circumstances that result in impediments for employees seeking to share their working knowledge. The study offered very useful insights as to how social media provides a user friendly interface helping individuals and project groups to share and enhance knowledge. Some of the salient features of using ICT in knowledge management in Indian knowledge intensive industries were: Wiki; Content Repository; Communities; Search; Forums; Ask an Expert; Blogs; Videoconferencing etc. (Goel et al., 2009). To explore the power of collaborative documentation Wikis are created and maintained to share knowledge. The details available in Wikis are very user friendly and all the needed data/details are listed in Wiki. Information and communication technologies are used to provide a search engine on KM portal which can find the match to key words from all sites or even from specific locations like communities, blogs etc. within the organization (Goel et al., 2010b; Tiwana, 2003).

The emerging global economy has increasingly put a premium on the ability of firms to quickly and accurately evaluate new market opportunities, new products and other strategic business decisions. Social media sharing plays a key role for such coordination in knowledge sharing. Knowledge management research is still relatively new and knowledge management literature focused primarily on the relevance of knowledge, the contribution of knowledge workers and the advancement of knowledge-based organizations. There is not enough literature which refers to all the dimensions of knowledge management and social media strategies and their inter-relationship with the dimensions of product innovation. A research gap has been observed to explore knowledge management and social media strategies along with their variables. This book will fulfill this gap and showcase pertinent views that derive from the current knowledge management and social media technologies which consider the concepts of knowledge shar-
ing, innovation ecosystem and product development central to its philosophy and objectives. It focuses on how the next wave of social media can be harnessed to further innovation.

**ORGANIZATION OF THE BOOK**

The book is organized into sixteen chapters. A brief description of each of the chapters follows:

**Chapter 1**

This chapter emphasizes the spirit of Social Media in community building. Communities are extremely valuable because of their informal, just-in-time, increasingly real-time advantage and cannot be replaced by structured KM platforms. It is this aspect of communities, that new Social Media enhances, in spirit as well as in tools support. Best practices developed by this author and other practitioners are presented in this chapter so that other communities can benefit from them. Cases and anecdotes from organizations
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Across industry sectors enliven the discussions. Emerging trends and innovative use of Social Media, are introduced as benchmarks.

Chapter 2

This chapter analyzes what cultural barriers are being raised against social media adoption and how can management re-align their understanding of social media to better utilize resources and take advantage of the opportunities this technology presents.

Chapter 3

This chapter establishes the need of Shared workplaces which are becoming very common within Europe. Multifactories are shared working environment that combine traits of a Coworking Space, a Fab Lab and a Makerspace. One of the traits that characterize a Multifactory is how knowledge exchange brings to innovation. This chapter has its focus on a case study that shows how a traditional SME and a multifactory can work together in order to develop an innovative idea and how Social Media can be parts of an overall strategy set to product innovation.

Chapter 4

The main contribution of this chapter is the study of the generation and management knowledge, emphasizing the social aspects, from an area of the Logistic Model Based on Positions (LoMoBaP). The area to use is the Inverse logistics, which is integrated for the Reverse logistics manager, the Compilation and Reception manager and the Classification and use manager. The analysis has been done via dynamic knowledge, studying the upward spiral of knowledge creation, tacit to explicit to tacit.

Chapter 5

In this chapter, the authors have addresses the issues related to the use of graph techniques to identify communities and sub-communities and to derive a community structure for social network analysis, information extraction and knowledge management. This chapter contributes towards the graph mining, its application in social network using community based graph.

Chapter 6

In this chapter authors discusses about many barriers that stand in the way of successfully implementing KM, whether it is a lack of access to current information, a lack of clear communications, difficulty in transferring knowledge and information, difficulty in maintaining the relevance and currency of knowledge and information, lack of support from senior managers, or limited resources - both in time and personnel.

Chapter 7

This chapter seeks to extend previous studies on the use of Internet technologies and knowledge management by analyzing factors affecting Web knowledge exchange in small and medium-sized enterprises
achieve knowledge in organizations.

Chapter 8

This book chapter unravels the difference brought into traditional knowledge management due to the use of Enterprise Social Networks (ESNs). The advantages and barriers to the use of ESNs in organizations are also explained. The ESN spectrum and the corresponding knowledge management practices and innovation types are clearly delineated in this chapter. In this book chapter authors have used the theory of technology acceptance and works testing the theory of media richness to understand the varied uses of ESNs in knowledge management and innovation in organizations.

Chapter 9

In this chapter, the authors followed a case study approach to analyze three Mexican companies with the objective of understanding how companies in the IT sector are implementing digital technologies to achieve knowledge transfer in their organizations.

Chapter 10

This chapter intends to describe a new interpretative paradigm, Orientism, to understand and manage fluid nature of knowledge, but at the same time to seize and manage the unpredictability and risks of the dynamics of knowledge management in relationships complex environment, in a society. Author also explains an Instructional Design Model (PENTHA 2.0).

Chapter 11

This chapter uses a KM approach in discussing the academic integrity topic. The view is that good academic conduct or academic integrity helps students learn, and the academe guides them in order to attain high quality qualifications. Thus, the better the quality of perceived products of a university, the more likely employers are encouraged to provide internship opportunities, hire the graduating students, and the more the reputation of the university is perceived to be superior.

Chapter 12

The management of innovation projects within organisations forms the focal point of this chapter. Like the role of various intra-organizational contingencies, effect of several appropriate management practices, various ways that customer knowledge can successfully be integrated in innovation efforts are discussed.

Chapter 13

This paper presents a new conceptual approach for innovation process in start-ups and a new methodology to know how long the innovation process must take. The conceptual approach proposed is divided into seven interactive steps: 1) Have an idea (product, service, process, business/marketing; 2) Analyze
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the state-of-the-art and the market; 3) R&D activities and Intellectual Property; 4) Listen the market; 5) Define a flexible business plan; 6) Find a business partner; and 7) Go-to-market.

Chapter 14

This chapter discusses the nature of domain expertise, how it is acquired and its crucial role in new product development. According to the author Organizations need to be aware of the difference when making deliberate efforts to maximize the operational value of their knowledge and expertise.

Chapter 15

This chapter aims to create product innovation strategies through knowledge management (KM) in global business, thus explaining the theoretical and practical concepts of product innovation strategy and KM; the significance of product innovation strategies and KM in global business; and the creation of product innovation strategies through KM in global business. The chapter also argues that creating product innovation strategies through KM has the potential to improve organizational performance and achieve strategic goals in global business.

Chapter 16

This study offers an overview of the factors that affect product innovation capabilities, with particular reference to entrepreneurial orientation of Indian Small and Medium Enterprises (SMEs). This practitioner oriented paper is build upon a case study, which explores the product innovation process at an Indian SME and integrates the findings with contemporary knowledge on knowledge creation and innovation. This study showcase provocative views that considers the concept of innovation ecosystem and new product development central to its philosophy and objectives.

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REFERENCES


