



Mobile environments and innovation co-creation processes & ecosystems



Tracey Y.T. Wong^a, Gabrielle Peko^a, David Sundaram^a, Selwyn Piramuthu^{b,*}

^a Information Systems, University of Auckland, Owen G. Glenn Building, 12 Grafton Road, Auckland, New Zealand

^b ISOM Department University of Florida, 351 Stuzin Hall, Gainesville, FL 32611-7169, USA

ARTICLE INFO

Article history:

Received 17 September 2014

Received in revised form 19 May 2015

Accepted 17 September 2015

Available online 28 September 2015

Keywords:

Innovation co-creation

Mobile devices

ABSTRACT

The process of value creation was traditionally driven almost exclusively within the firm. Product design and production were performed with minimal input from consumers, and the role of the consumer was witnessed only at the end of the product development process. Co-creation is generally considered by innovative firms that seek to achieve or maintain strategic competitiveness in the marketplace as a highly valuable progression in open innovation. Although extensive research results exist on innovation co-creation between firms and consumers, a coherent understanding of the application of such co-creation in mobile environments is missing in the literature. We consider opportunities that mobile technologies introduce to further develop co-creation. Based on an extensive literature review of innovation co-creation processes and ecosystems, we identify the key problems, issues, and requirements. We then develop an innovation co-creation framework with two levels of abstraction to organize the enablers, capabilities, and characteristics. We then suggest a roadmap with four stages for realizing a mobile innovation co-creation ecosystem.

© 2015 Elsevier B.V. All rights reserved.

1. Introduction

The success of an enterprise lies in the development of new products to meet consumer demand and to deliver them profitably in the marketplace [43]. Innovation is one of the primary ways firms can differentiate their products and services from the competition and thus retain sustainable growth. In the past, it was possible for organizations to survive with very limited amount of innovation. They focused on simply updating products to a minimum level that maintained their competitiveness in the market [59,101]. However, due to factors such as changes in consumer tastes, ever-shortening product lifecycles, competitive movements, technological advances, and globalization, there is an increased need for firms to improve their response to changing markets [9,16,20,37].

According to a survey conducted by Accenture, two-thirds of executives identified innovation as one of the five most critical factors required for companies to succeed and sustain a competitive advantage. However, the same survey found that only one in eight executives feels strongly that their companies excel at

achieving innovation [44]. Benkler [7] argues that the best innovative solutions lie not within firms but with consumers. A recent survey conducted by the Economist Intelligence Unit [23] suggests that consumers are becoming increasingly important sources of innovation across all regions, industries, and company sizes. Skills and insights from the ultimate users of output help firms develop relevant products that well suit consumer needs [40]. By taking full advantage of the collective creative power in both current and potential consumers, firms have the potential to lead existing markets and create new ones within a relatively short period [102].

Innovation co-creation has recently gained popularity among businesses as a fundamental source of competitive advantage. Although the idea of creating two-way dialogues with key stakeholders is not new, the availability of powerful Web-based tools make it relatively easier to start conversations and gather input rapidly from a large number of participants [79]. Many of the world's leading companies, such as LEGO [64], Starbucks [77] and Nike [108], actively use innovation co-creation platforms and communities to engage directly with consumers to generate new ideas [78]. However, these enabling tools have predominantly been isolated to the traditional desktop environment [99]. Facilitated by advances in communication technology as well as the general availability and increased openness to two-way access

* Corresponding author. Tel.: +1 352 392 8882.

E-mail address: selwyn@ufl.edu (S. Piramuthu).

between firms and consumers, there is a clear transformation of consumers from passive observers to active participants. While companies have successfully used brands and social media to target consumers, consumers have evolved to use social media to target companies and their brands in constructive ways that lead to positive product development contributions.

The emergence of mobile technologies presents great challenges and opportunities for the creation of business value [19]. Mobile technologies have provided users with the ability to communicate with other parties and access information independent of location and time constraints [52]. One significant outcome of this increased empowerment is that consumers now desire to play a greater role in their interactions with companies [40]. As a result, there arises the question of how the development of mobile technologies will transform the enterprise and its consumer-centric processes, such as innovation co-creation [6].

In most cases, innovation as well as the generation of ideas is known to be location-independent, where the innovators or idea generators do not necessarily delve into their creative or innovative side in a laboratory or company setting. It is difficult to time innovations and ideas, which have a rich, long history of occurrence when and where they are least expected, and especially in locations that are outside of one's traditional "work" environment. Given this innovation dynamic, it is time-critical for such ideas to be heard and shared with relevant people as and when they occur. The traditional work environment, although not necessarily known to provide the most conducive atmosphere for innovations and ideas to be generated, fails to support innovation instances that occur outside of the work environment to the fullest possible extent. With the extensive availability of mobile technologies, it is only natural to make use of these technologies to facilitate idea generation and innovation whenever and wherever they occur, with the removal of location-based constraints. When consumers become joint innovators as well as idea generators for companies, there is a further need to incorporate these consumers and their ideas into the innovation co-creation process. The innovation process does not place any location-based restrictions, and neither should the technology that is used to facilitate this process. We therefore argue that mobile technologies are an essential part of innovation co-creation.

Despite the large volume of published research that considers innovation co-creation, discussion and studies on the opportunities that arise with the introduction of mobile technology are absent in the literature. We attempt to address this gap in the existing literature. Based on an extensive literature review of innovation co-creation processes and related ecosystems, we identify the key problems, issues, and requirements. We then develop an innovation co-creation framework with two levels of abstraction to organize the enablers, capabilities, and characteristics. We then suggest a roadmap with four stages for realizing a mobile innovation co-creation ecosystem.

The rest of the paper is organized as follows: We provide an extensive review of innovation co-creation in Section 2. We then discuss the effect of mobile technologies on the innovation co-creation process based on our synthesis of existing literature in Section 3. We also develop a framework and an associated roadmap with the incorporation of mobile technologies in Section 3. We conclude the paper with a brief discussion on innovation co-creation as it relates to mobile organization-customer interactions in Section 4.

2. Related literature on innovation co-creation

The traditional innovation process was linear and sequential, in which firms internally developed new ideas and tested them in the

market [58]. This structure gave firms the ability to undertake activities in an orderly manner, thereby minimizing uncertainties related to each and enhancing total task effectiveness [104]. Consumers were generally passive participants in the innovation process, acting only as validators at the end stages of the product development lifecycle [58].

However, the process of innovation has changed. The concept of co-creation has transformed the traditional closed innovation process into a parallel and open one [35]. Today's new products must satisfy multiple consumer needs in terms of quality, function and price to be successful. To this end, innovation activities must take place simultaneously, with information being processed from various sources as products are conceived and designed. Linear innovation models that undertake tasks in a sequential manner are therefore inappropriate for this purpose [66].

Pralhad and Ramaswamy [74] define co-creation as "an active, creative and social process based on collaboration between producers and users, initiated by the firm to generate value for [consumers]." Successful new product development requires two types of information: (1) information about consumer needs and (2) information about how to best address these needs. Typically, consumers are the most knowledgeable about the first type of information, whereas providers are the best source for the second type [63].

We consider literature in this area and the key concepts discussed in this literature in terms of innovation co-creation. Specifically, we consider literature that covers the general theme of consumer and the co-creation process as well as the co-creation ecosystem. With respect to the former, we consider the role of consumers in the innovation process, their characteristics, as well as the benefits and risks of co-creation.

2.1. Co-creation and the consumer

2.1.1. Consumer roles in innovation processes

Co-creation is found in all stages of the innovation process, including idea generation, design, engineering, and test and launch. The level of involvement of the firm and consumer varies across different innovation processes and depends on the context and degree of task complexity. As a result, consumers take on various roles based on the purpose of the collaboration. In practice, the term "co-creation" is often generalized and refers to instances of consumer input that do not necessarily involve the joint creation of value [96]. The different roles that consumers play in the development of new products, based on their level of influence and autonomy in the innovation process, include (in increasing order of consumer involvement) *insight provider* (e.g., [96]), *customizer* (e.g., [71]), *ideator* (e.g., [11,39,46,92,93]), *co-creator* (e.g., [74]), and *creator* (e.g., [32]). Because these are only roles that are played by consumers, these roles can be switched as often as necessary as a given situation dictates.

Consumers who are insight providers generally have a low level of influence and are sourced by companies to help them find solutions, provide insights, identify needs, and evaluate ideas. Unlike insight providers, customizers have the direct influence to adapt and select product features during the final stages of product development, though only to the extent that is allowed by the companies of interest. As a group, ideators provide creative input to firms, with the resulting intellectual property being owned and used by the company for further inspiration and innovation. Co-creators work with companies to create new products, with their involvement spanning all phases of the innovation process. Online communities are perfect for this role because frequent real-time two-way communication is necessary in this context. Creators initiate and drive the innovation process as independent value creators.

Download English Version:

<https://daneshyari.com/en/article/553126>

Download Persian Version:

<https://daneshyari.com/article/553126>

[Daneshyari.com](https://daneshyari.com)