

Leveraging Social Media for Customer Participation in New Product Development- A Conceptual Framework

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Abstract

The firms are witnessing a dramatic change in their business environment. The change is not limited to macro-environmental factors but also there have been a drastic change in the way of doing business and the approaches related to business management. The companies which do not accept these changes cannot survive and cease to exist in the market. Therefore, changing products and offerings becomes vital for firms' survival. New products are the lifeblood for any firm and their success contributes towards the profitability and growth. However, the introduction of new product is a risky affair as only meagre percentage of new products are accepted by the consumers and become successful. One of the modus operandi in order to minimize the risk of product failure is to incorporate the voice of customer in new product developmental (NPD) process. Social media can be used as a platform to gauge customer opinion and enhance customer participation in new product development process. The present study proposes a conceptual model in order to enhance the customer participation via social media and leverage social media in new product development process. The integrative approach identifies the positive aspects of social media which can be used effectively in new product development process.

Keywords: New product Development (NPD); Social Media; Customer Participation; Conceptual Model.

Introduction

The world has moved from World Wide Web (WWW) to Web 2.0 to Web 3.0 and finally heading towards Web 4.0 which is also referred as the next stage of evolution of internet. In this stage, augmented reality and Big data is expected to play key role. Today, the business environment is witnessing a dramatic change. The change is not only limited to rapid and radical changes in technological environment but can also be perceived in demographical, cultural, social, cultural and legal-government environment. Also, the business practices are changing in one way or the other. These changed business practices were very profoundly described by Mr. Harish Manwani, Chairman, Hindustan Unilever Limited at the company AGM held in June, 2016.

“We live in an era where the world’s largest car travel company does not own a single car. A company that provides tourists lodgings across 34,000 cities in over 190 countries, does not own a single cubic area of space. A company with retail sales of over 100\$ billion, does not own a single retail shop. Uber, Airbnb and Amazon are among a growing number of global companies that did not exist a couple of decades ago, but have rapidly grown and are thriving across diverse markets displacing some well entrenched players with their disruptive business models. They have done this by riding the megatrend of digitization in an increasingly connected world” (Manwani, 2016).

In order to sustain in this volatile business environment, firms need to keep on innovating and developing new product and offerings for their customers. New product is not about rectifying the already existing product or modify an already existing product or adding some new features/attributes to match with the competitors. It is all about giving customer a new and different experience. It is all about breaking the clutter and standing out from rest of the players in the market (Dhargalkar, Shinde & Arora, 2016). Thus, new products are vital and are rightly considered as “growth engines” and “lifeblood” of the firms (Badrinarayanan & Arnett, 2008).

But in real world only small percentage of new product are accepted by the consumers and become successful. In other words, introducing new product involves high degree of risk. Therefore, firms should try to minimize this risk and introduce products which would get wide acceptance from the consumers. One way to assure the acceptance of products by the consumers is to inculcate their viewpoints in new product development process. Social media can be used as a platform in this case as social media promises better collaboration and connection between different users as well as between firm and its users (Drahošová & Balco, 2017).

The role of customer participation in new product development have been proved to be positively related to the new product performance (Hsieh & Chen, 2005). Customer participation on one hand can provide an insight into the needs and requirement of the customer while on the other can foster

the innovation in new products and services (Filieri, 2013). This article aims to present an insight of leveraging social media for customer participation in NPD process. Different researchers have proposed different steps for new product development but the present study tries to consolidate these steps into four phases namely- Inception or Idea Generation Phase; Concept development and testing; Design or Product Development Phase and Launching phase or Commercialization. The article has come up with a conceptual model as to show how social media can be used for enhancing customer participation in new product development process.

Literature Review

New Product Development (Npd)

New products are the lifeline of any business. They are critical for the growth and prosperity of any firm but also involves high risk of failure (Cooper & Kleinschmidt, 1986). However, new products have always been associated as one of the strategy of management for generating new profit for the firm (Fojt, 1996). Introduction of new product on one hand is associated with the growth and profitability of the firm but on the other carries huge risk especially in today's market which is completely driven by technology. Therefore, in this era of global competition, timely and responsive new product development becomes indispensable (Yelkur & Herbig, 1996). Also, it is a well-known fact that only few new products succeed in market (Tzokas et al., 2004) and therefore most of the product in market are either "me too" products which are an extension of already existing product line or an improvement over current product or low price version of the product (Wind & Mahajan, 1997).

Today, most of the large firms manage new products in a systematic manner (Florén & Frishammar, 2012). Also, with the introduction of modern information technology tools and techniques, computer support can be applied to each and every stage of new product development (Kazimierska & Grębosz-Krawczyk, 2017).

After analysis of 123 firm for 252 new product histories Cooper and Kleinschmidt (1986) concluded that there are seven key activities in new product development process. The steps are shown in figure 1.

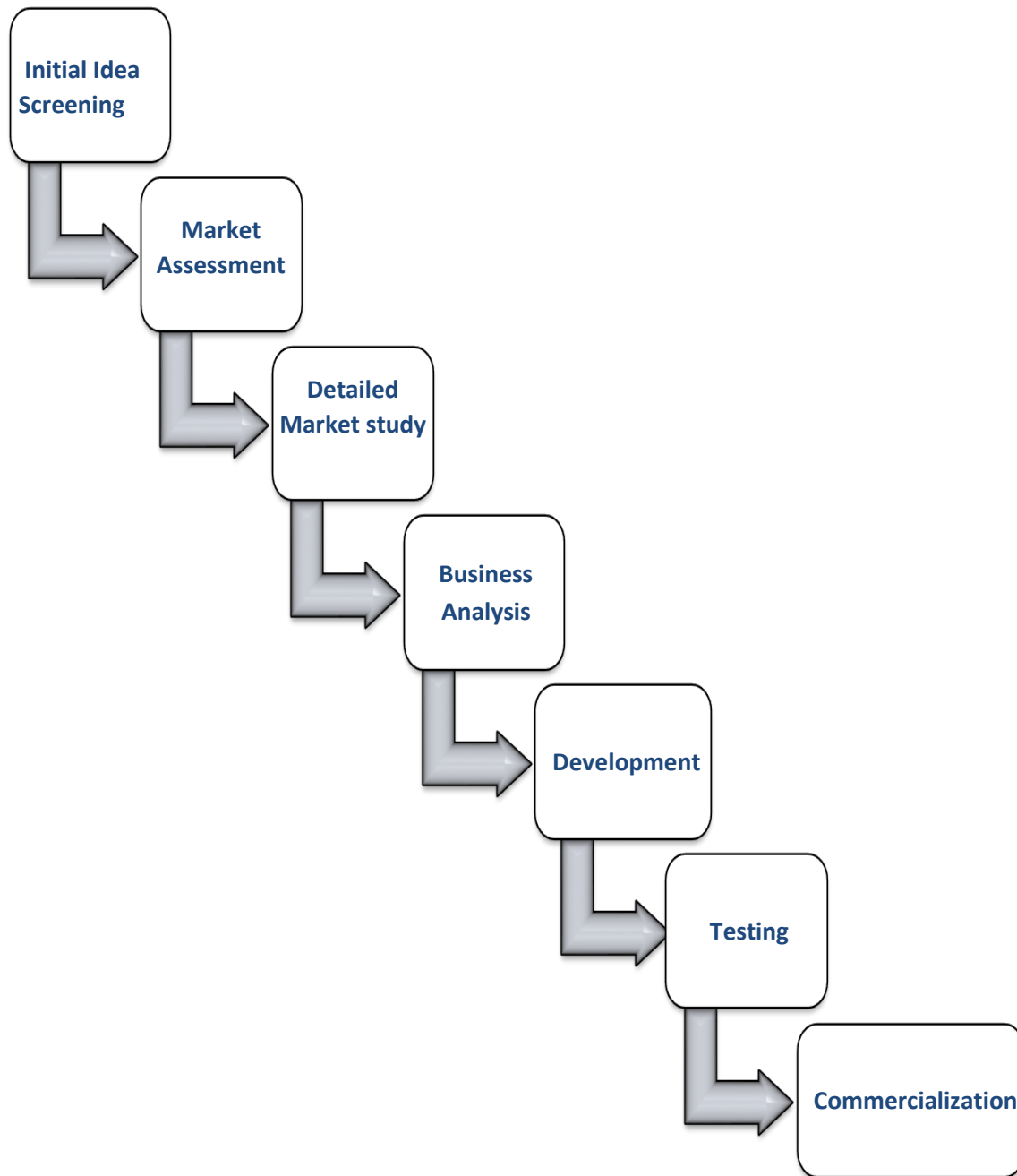


Figure 1– New Product Development Process (Cooper & Kleinschmidt, 1986)

Yelkur and Herbig (1996), were of the view that successful global products cannot follow a step by step approach of new product development. It need to be ‘dynamic and simultaneous’ and

therefore most of the global firms are adopting approaches such as parallel engineering, or concurrent engineering.

The process of NPD revolves around four major phases which are as follows-

1. Inception or Idea Generation Phase
2. Concept development and testing
3. Design or Product Development Phase
4. Launching phase or Commercialization

Inception or Idea Generation Phase

Every successful product is a result of an idea which is considerable and noble. The first and foremost of NPD process is idea generation and screening. These initial stages of NPD are also considered as 'front end' and provides firms with the information related to new product idea, utility of the idea for the consumer and feasibility related to financial and technical aspect of the idea (Dahan & Mendelson, 2001).

Florén and Frishammar (2012) have included idea generation and screening as the 'front end' of the NPD. The front end process starts as soon as the opportunity is identified which have a potential application but may lack potential understanding of the market. In other words, the 'front end' starts when a potential and viable idea is identified by some key stakeholder in the organization and ends when a decision is taken in order to go ahead or not to go ahead with the product idea. Many studies have shown that the people outside the organization boundaries can be vital source for new product ideas and concepts.

The reasons to go or not to go ahead with the product idea depends on no. of internal and external factors like resources availability; competency related to technology, manpower etc.; commercial potential and firms' current business model (Florén et al., 2018); competition and market share; customer taste and preferences and so on. Khurana and Rosenthal (1998) has divided all the success factors into two broad categories – foundational success factors and project-specific success factors. Florian et al. (2018) also used the same categories in their study. Foundation success factors are common for all the firms front end projects while project-specific factors are applicable to only a particular project of the firm. Also, it is interesting to note that foundation factors form the grounds on which project specific factors are developed. In other words, without adequate foundation factors the existence of project factors becomes a matter of chance or luck (Khurana & Rosenthal, 1997). Figure 2 presents a conceptual framework proposed by Florian et al. (2018).

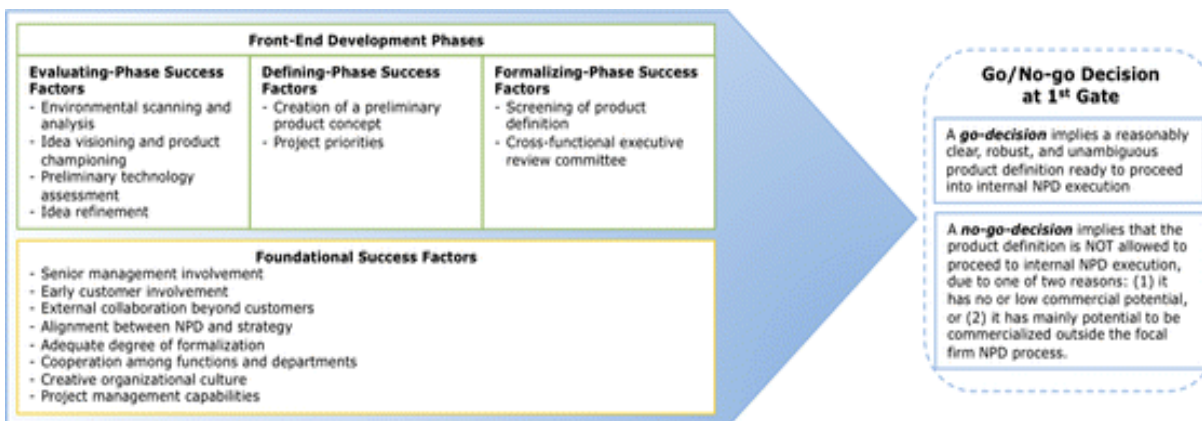


Figure 2 - A conceptual framework depicting success factors in the front end phase of NPD (Florien et al., 2018)

Also, the product may fail at the latter developmental stage or may be at the commercialization phase but the reasons of failure can often be traced to the inception stage of product development (Florén et al., 2018).

While study the impact of knowledge management on NPD, Yang and Yu (2002), suggested that in-depth knowledge and experience in particular technology and market is required for idea generation. In order to generate good ideas companies has look beyond their existing technologies and market application. This will lead them to either organizational learning or leveraging skill which exists outside their company or firm.

Concept Development and Testing

The second set of activities in NPD can be clubbed as concept development and testing. It involves designing a new product and presenting the representation of the proposed future product to a group or sample of probable customers. Concept Development and testing can also be viewed as an extension of idea generation and testing and the main objective of this stage is to evaluate the reaction of market before committing substantial amount of resources in the physical development of the product (Baker & Hart, 2009). Concept testing is a costly affair and therefore the balance has to be created between cost incurred in concept development and testing and the benefits in order to maximize the expected profits to the company (Dahan & Mendelson, 2001).

Concept testing have also been described by the researchers as a research technique which can be used in order to get the early market inputs i.e. in order to judge whether the future customer of the product will be interested or not, in buying the product offered by the firm (Page & Rosenbaum, 1992). In other words, this phase focuses on searching the best design, the best price, the best

positioning and the best manufacturing process for the new product of the firm (Dahan & Mendelson, 2001).

Design or Product Development Phase

Design or Product Development Phase is the phase which starts as soon as the major 'go' decision has been taken by the firm. Based upon the various analysis and information collected by the firm such as, feasibility of the product; customer preferences; cost analysis of different design; total resource required; cost-profit ratio etc. the firms initiate the work of making the product (Baker & Hart, 2009). Also, the design of the product reflects the deep understanding of consumer needs by the firm and thus plays a vital role in differentiating and positioning the new product in the market. According to Veryzer and Mozota (1995), "design offers a potent way to position and to differentiate products and can play a significant role in their success. In many ways, it is the focus on deep understanding of the customer or user—what may be termed user-oriented design (UOD)—that transforms a bundle of technology with the ability to provide functionality into a "product" that people desire to interact with and from which they derive benefits".

Perks, Cooper and Jones (2005) developed a taxonomy where design have been characterized as having one of the three important roles in the firms-

- (1) Design as functional specialism- Design is viewed as a functional aspect of the business and as a resource by the company.
- (2) Design as part of multifunctional team- Design is an important part of the organization and a team approach is used throughout the product development process.
- (3) Design as NPD process leader- Design in this category is viewed as strong force for innovation.

Also, the total time spent on designing and development of a product depends upon the complexity of the new product (Griffin, 1993).

Launching Phase or Commercialization

The final stage of the new product development is commercialization or market launch of new product. This is a stage where decision related to when (timing), where (geographical strategy), to whom (prospective customers or target market) and how (marketing strategy used) are taken by the firm (Kotler, 2017, p 490-91). However the information related to these decisions are collected throughout the development process (Baker & Hart, 2009). It has been noticed that too often the companies get engrossed in designing and manufacturing new product that they either postpone or neglect to spend enough time needed to launch a successful marketing program (Schneider & Hall,

2011).

Social Media

Social media is one of the most fascinating topic of recent times. It has not only caught the attention of researchers but also has become an integral part of one's life. Out of the entire population the youngsters are the most common and frequent users of social media as have been studied by various researchers (Garcia et al., 2015; Bhatt & Kumar, 2014; Gill, 2015; Koles & Nagy, 2012; Li, 2011). Also, there have been a drastic increase in the use of social media to interact, collaborate and to connect with customers (Mount & Martinez, 2014).

Mangold and Faulds (2009), have described social media as a hybrid element of promotion mix because on one hand companies can communicate with their consumers (as in case of traditional media) while on the other hand it also provides consumers a platform to communicate with the company as well as among themselves (not possible in case of traditional media). One of the most referred and accepted definition of social media is given by Kaplan and Haenlein (2010). According to Kaplan and Haenlein (2010), "Social Media is a group of Internet based applications that builds on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content." A classification of social media was also proposed by them where they have categorized social media into six more specific categories on the basis of social presence/ media richness and self- presentation/ self-disclosure. These categories are – collaborative projects (Wikipedia), blogs (Wordpress.com), content communities (YouTube), social networking sites (Facebook), virtual social worlds (Second life) and virtual game worlds (PUBG). Social Media also provide a platform for interaction between different users as well as between users and firm. Thus, it enables companies to interact with their users and co-create new products and services (Filieri, 2013).

Customer Participation

Customer participation can be referred as the involvement of customer in the firm's NPD process (Fang, 2008). The view that firms can improve their innovation performance by tapping into customer's knowledge around needs and solutions has led the firms to increasingly involve customers at various phases of new product development NPD (Fang 2008; Gruner and Homburg 2000).

Some firms have benefited from engaging customers in NPD process. Muji, a Japanese consumer goods brand, reported that three-year aggregate sales of products from users' ideas were five times higher than the sales of products built from professional designers' ideas (Nishikawa, Schreier and Ogawa, 2013). However, customer participation leads to inefficient NPD processes and poor NPD

performance. For example, in the year 2006 Netflix invited customers to design a new algorithm to improve the accuracy of its DVD movie recommendation engine. It took Netflix almost three years to develop the same with customers and even then it could not be implemented because customer preference had shifted for mailed DVDs to video streaming (Lakhani et al. 2014). Undeniably, many firms have found it difficult to leverage customer participation in the process of NDP success. In the view of this theoretical background the authors aim to present a conceptual model with regard to leveraging social media for customer participation in the process of new product development.

Leveraging Social Media for Customer Participation at Different Phases of Npd – A Conceptual Model

Customer participation in NPD process presents a detail insight into the needs and wants of customer and also lowers the risk of product failure. Social Media provides a platform which can be used by the company in order to enhance the customer participation in new product development. The present study focuses mainly on the four broad phases of new product development and the use of social media in these phases to enhance customer participation. Figure 3 presents a conceptual model depicting the same.

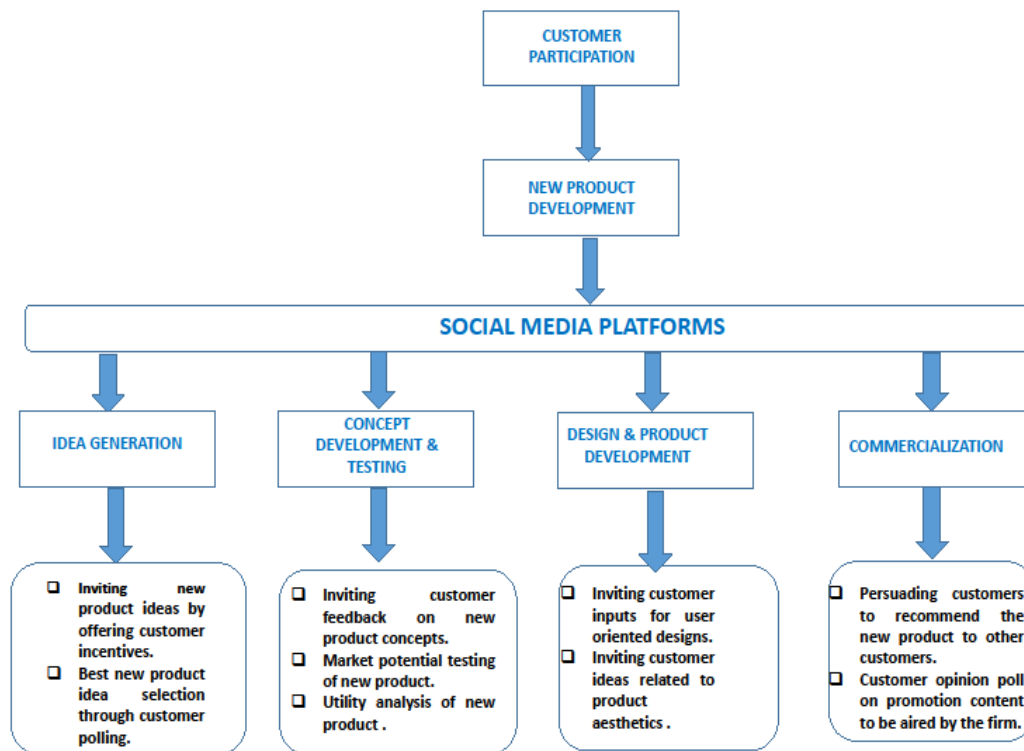


Figure 3 - A conceptual framework depicting customer participation in major phases of NPD using social media (Author's Own)

The model presented in figure 3 presents' different approaches available to firm to use social media in order to enhance customer participation and registering their inputs in NPD process. In the idea generation phase firms can invite innovative new product ideas from the customers and can also ask them to vote for the best idea presented to them. Social media use at incipient phase has been studied and proved to be positively associated with profitability, growth and innovativeness (Filiari 2013; Roberts and Candi 2014). In the concept development and testing stage firm can use social media in order to enquire customers for their reaction related to utility, features or attributes, expectation and buying inclination of the proposed product. Firms can also involve and engage customer in designing the aesthetics of product and developing design which are user oriented. At the final phase i.e. commercialization the firms can gauge the reaction of various marketing communication campaign via social media i.e. likes or dislikes about a marketing content, visuals, audios and so on. Also, firm can persuade the buyers to recommend the product to other users in lieu of some kind of financial or non- financial benefits. Firms can also motivate users and associate their recommendation with implicit and explicit incentives. Implicit incentives are those incentives which are intangible in nature and provide users with intangible benefits for example- feeling good, social capital and so on. Explicit benefits include tangible rewards such as - coupons, vouchers, lotteries etc. which can be financial or prize draws in nature (Toluna, 2009).

Conclusion and Future Research Perspectives

This article tried to consolidate and reviewed the literature available about the steps involved in new product development i.e. Inception or idea generation, Concept development & testing, Design or product development and Launching. Also it throws light on the emergence of social media as a platform for interaction between different users as well as between users and firm. The firms can leverage customer participation through these platforms and co-create new products and services. The authors have presented a conceptual model showing how the firms can use the social media and leverage customer participation in the process of NPD.

The study can be further taken as an empirical study to validate the conceptual model proposed by the authors. The authors hope that in future, researchers will test this model empirically to contribute and strengthen it further.

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