



## Review Article

# Leveraging Social Media for New Product Development: A Review

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## Abstract

Communication is a vehicle used by the marketer in order to inform, remind and persuade the consumer about their products, services or brands they sell. In other words, marketing communication epitomize the voice of the company. The world of communication has experienced a gradual change and this change can be attributed as a result of the movement from the traditional World Wide Web (WWW) to Web 2.0 state of technologies. One of the discernible changes is the communication ways used by the customer to communicate among themselves or the organizations communicating with their customers. Social media can be referred as one of the medium of this change. These online virtual spaces provide a platform to the users to interact, collaborate and share the content. The present study tries to elucidate the use of social media as a platform to develop new product and services. Also, it tries to present an insight into the various phases of new product development (NPD) where social media can be used to enhance the efficiency and effectiveness of the process. The study explores the different areas, where the work has been done by different researchers and tries to find the gap in the related past studies.

**Key words:** Marketing communication, new product development, social media marketing, customer engagement, customer empowerment

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## INTRODUCTION

Marketing communication has always mesmerized the attention of researchers and marketers and has always been the area of keen interest for several researchers. Marketing communication is a vehicle used by the marketer in order to inform, remind and persuade the consumer about their products, services or brands they sell. In other words, marketing communication epitomize the voice of the company. It is a mean through which marketer can establish a long term relationship with their customers and can also establish a two way dialogue between the company and its customer<sup>1</sup>. The highly interactive nature of internet and the internet-based virtual environment provides an opportunity to the business firm to interact with huge number of consumer without compromising on the richness of the content. In other words, it has permitted the firms to tame the trade-off between richness and reach<sup>2</sup>. The change in technology and other related factors has altered the marketing communication environment and has depicted new opportunities as well as challenges in front of the marketer. The greater flexibility and precision offered by digital media makes it more attractive and offer better potential to the marketer. However, there are many integration challenges underlining this<sup>3</sup>.

The drift in the world of information and communication technology (ICT) has also changed the social as well as technical environment and this change has been used in the betterment of the society in the multifaceted manner<sup>4</sup>. We have moved away from World Wide Web and were moving towards Web 2.0 which promises better collaboration and communication between its users. This has also resulted in increased number of users<sup>5</sup>. Companies are generally using Web 2.0 in three areas internally i.e., within their organization, externally to collaborate with their customers and in dealing with their suppliers, partners and other stakeholders<sup>6</sup>.

The digital era has change the means and method of communication whether we take into consideration the communication between two people or a customer and an organization or a brand. A key reason of this change is the emergence of social media also known as "consumer generated media"<sup>7</sup>. However, it is important to note that the technology used is new but the underlying motive and behavior of the customer remains the same i.e., the need for interaction and socialization<sup>8</sup>.

Traditionally, companies used to design product, services and marketing communication based on their own view of consumer needs and wants<sup>9,10</sup>. Today, consumers are empowered with online social technologies and are better

connected with people across the world. They now have their own perspective about the offerings of the company and they are drawing power from one another. There has been growing "groundswell" of such tech savvy customers and some companies like Dell are able to turn this groundswell to their advantage<sup>9</sup>.

**Social media:** Social media is increasingly used as a platform to market the product, services and offering by the organizations and marketers. It has been proved to be very effective medium and a platform for interaction between the users and the marketers or businesses<sup>11,12</sup>. Social media is able to provide more "dynamic connections" and "meaningful relationship" between the customers and the firm because of features like high interactivity, social linkage. Companies using social media channels are bypassing the traditional "customer care" channels and are getting vital information related to there product and services which can be used in order to benchmark there offering against there competitors offering<sup>13</sup>. Also, a very important outcome of social media interaction of companies with their consumers is trust which develops when customer starts feeling that there inputs to the company matters and companies are trying to deliver as per the expectation of the customers<sup>14</sup>. Companies, who are embedding social media in their business process will gradually transform their relationship with customer and will create value in an unimagined manner. The rate of adoption of social media is also magnificent. It took over 38 years for radio to have 50 million users while for Facebook it was only a question for 4 years to reach the same number of users as depicted in Fig. 1<sup>15</sup>.

According to Kaplan and Haenlein<sup>16</sup>, the term "Social Media" is often confused with the related terms like Web 2.0 and user generated content (UGC). As defined by Kaplan and Haenlein<sup>16</sup>, "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." They further classify 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, blogs, content communities, social networking sites, virtual social worlds and virtual game worlds.

Mangold and Faulds<sup>7</sup>, proposed social media as a "hybrid element of promotion mix because in a traditional sense it enables companies to talk to their customers while in a nontraditional sense it enables customers to talk directly to one another."

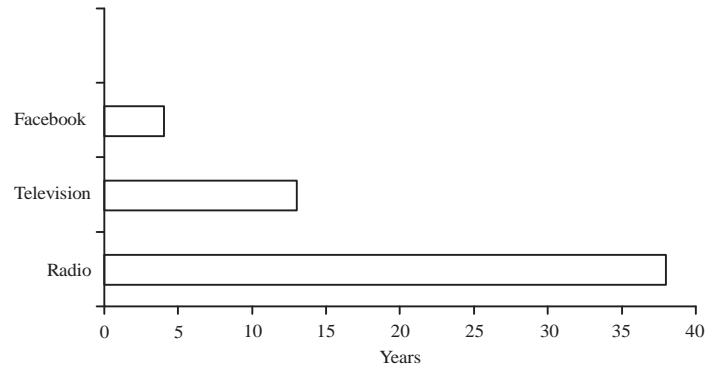


Fig. 1: Time taken to achieve 50 million users<sup>15</sup>

As per the online Statistic Portal-Statista<sup>17</sup>, social media penetration is ever increasing and in the year 2016, 68.3% internet users were social media users. This number is expected to grow rapidly and by the year 2020, the number will reach 2.95 billion which is around a third of entire Earth population. It is estimated that out of these users 650 million users are expected from China while India will have approximately a third of a billion. The site also reveals that Facebook is the most popular networking site as on April 2017 and the total number of active users in fourth quarter of 2016 was around 1.94 billion. All this proves that the love child of World Wide Web is social media. As a result of this phenomenon growth in social media platform it has attracted the attention of both industries and academic fraternity<sup>18</sup>.

However, social media is a domain which changes rapidly and the platform or the content which may be contemporary today may vanish tomorrow from this virtual world<sup>16</sup>. There are also many challenges in finding out the effectiveness of social media as a channel of marketing communication because of this changing and expanding nature of the social media<sup>19</sup>. Also, it can also be used by the customers for engaging in negative word of mouth communication and can deteriorate the image of the company<sup>20</sup>.

**Social networking sites (SNSs):** From the above mentioned specific categories of social media, social networking sites (SNSs) have been found to be more popular than any other form of sites and the reason behind this mammoth popularity is more usage by students and young tranche of the population<sup>16,21</sup>. SNSs are virtual platforms and can be used by the users in order to create, modify, share and react to various types of electronic content. All these activities can be done concomitantly or not concomitantly<sup>22</sup>. SNSs not only help individuals in the formation of new ties but also help in maintaining old social ties<sup>23</sup>. They provide a virtual platform to

the users to read, upload and share the content they want to. Also, they have vanquished the gap of time, distance and relationships<sup>24</sup>.

SNSs are defined as “web based services that allow individuals (1) To construct a public or semi-public profile within a bounded system, (2) Articulate a list of other users with whom they share a connection and (3) View and traverse their list of connection and made by others within the system”<sup>25</sup>.

The spending on SNSs as an online branding platform has undergone massive growth in recent years and is seen as an imperative component of the total promotional mix. It provides a vital channel to marketer to build brand-customer relationship. Marketers can encourage users of SNSs to spread positive electronic word-of-mouth communication (e-WOM) and can discourage them in spreading negative e-WOM<sup>26</sup>.

An extensive amount of literature is available on the use of SNSs and youngsters. The literature gives a detail idea about the use, attitude and perception of students towards SNSs<sup>4,5,27-29</sup>, cross cultural studies and use of SNSs<sup>30</sup>, motivation behind engaging in social networks by using SNSs<sup>31,32</sup>, technology acceptance model (TAM) and its relevance with SNSs and their usage<sup>33</sup>, uses and gratification of social media usage<sup>34</sup> (Strategic Direction, 2015), social capital and SNSs<sup>23,33,35,36</sup>, gender and SNSs<sup>37</sup>, risk faced by the users in using SNSs<sup>38</sup> and soon.

However, there has been limited number of studies which deal with social media and its use in new product development. There is a greater need to compile all the studies dealing with social media or SNSs and new product development and to uncover the role played by social media in new product development. Efforts are also desired in finding out the gaps in various studies in order to explore the areas of interest for future studies. It becomes even more important as no such study has been conducted in India to the best of knowledge of researcher.

**Literature review**

**Social media marketing (SMM):** Companies are increasingly using social media as a communication tool to interact, integrate, connect and communicate with their consumers<sup>39</sup>. It provides a platform where two way communication between the marketer and consumers is possible<sup>40</sup> and is perceived as more interesting and relevant by the consumers. In other words, social media has introduced the fifth “P” of marketing i.e., “Participation”<sup>41</sup>. The participation and engagement of consumers in brand communities formed by the marketers using social media has been proved helpful in enhancing the satisfaction of the consumer with the brand<sup>8</sup>. However, it has been observed that there has been dramatic increase in the usage of social media by the marketer but the use of social media in consumer-brand engagement is relatively very small. Therefore, there is a need to use these technologies for long term engagement rather than using them as a platform for sales promotion and short term revenue<sup>42</sup>. It was also revealed that the adoption of social media and SNSs by the companies depends upon the type of industry the brand/company belongs to, for example SNSs presence was higher for information technology and telecommunication brands, the age of target population and the country in which the company operates. It was also observed that the top global brands generally prefer to use SNSs with global presence rather than local SNSs even when the penetration rates of these local SNSs are higher<sup>43</sup>.

The use of social media as a marketing tool has been one of the important investment decision for the companies and marketers in today’s world. Today, companies are re adjusting their communication budgets and are using more resources for digital advertising and social media marketing when compared from traditional media<sup>18</sup>. Choi and Thoeni<sup>44</sup> reported that firms are not adopting activities which are important for effective use and implementation of social media strategy. They are not allotting enough resources to social media marketing and behaving as if social media was their “stepchild”. Although the main goal of social media marketing is to enhance external communication, the internal communication strategies were found to contribute negligible towards supporting external communication<sup>44</sup>.

There is also a need to identify the cost associated with social media program so that the effectiveness of social media program can be assessed<sup>45</sup>. A framework was developed by Keegan *et al.*<sup>19</sup> for SMM evaluation. The framework consist of six stages i.e., setting evaluation objectives, identifying key performance indicator (KPIs), identifying metrics, data collection and analysis, report generation and management

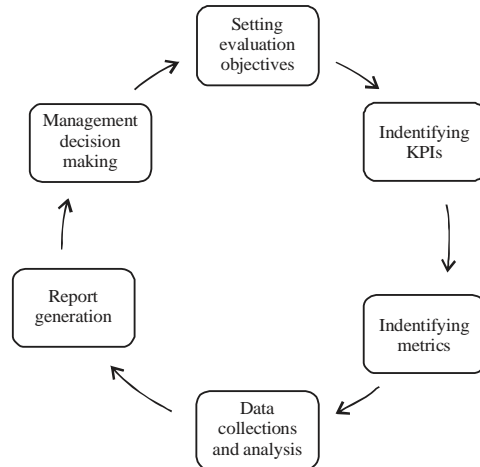


Fig. 2: Social media evaluation conceptual framework<sup>19</sup>

decision making. However, there are challenges underlying in each stage of this framework. The above mentioned stages are shown in Fig. 2.

Mount and Martinez<sup>39</sup>, delineated social media as a tool for open innovation. According to them social media can be used at different stages of product innovation. Few companies were successful in using social media at ideation, research and development and commercialization phase of their product innovation. A framework was also developed by Mount and Martinez<sup>39</sup> in order to explain how social media can be used to carry out innovation at each stage of product innovation.

**Social media and co-creation:** Traditionally, consumers were not having any role in any part or process of business entity and the “value-creation” was assumed to be happening inside the firm while consumers were considered as an entity “outside the firm”. However, with the “emergence of connected, informed, empowered and active consumers” the whole paradigm shifted from being firm-centric to customer-centric. Today, consumers are armed with different tools and they want to interact with firm and “co-create value”. They are ready to get involved in active dialog with the firm<sup>46</sup>. In other words, co-creation delineate a shift in the thinking where not only organization is perceived as value creator but where consumers and organization work together to create value through a mutual and participative process<sup>47</sup>.

Co-creation can be defined as “a collaborative New Product Development (NPD) activity in which consumers actively contribute and/or select the content of a new product offering”<sup>48</sup>. In other words, co-creation allow consumers to actively participate in NPD process and contibute or select (from the given options) features for a new offering by the firm.

Social media provides a platform which is functional in engaging customers in co-creation of offerings by the firms. It provides them with an environment which is interactive and gives them power as well as hunting room so that they can co-create value with firm<sup>12</sup>. Due to the increased access to information on both sides, social media has the power to change the customer-firm relationship as well as relationship among consumers themselves<sup>20</sup>.

Customers can be seen increasingly engaging in the process of both defining as well as creating value<sup>49,50</sup>. Prahalad and Ramaswamy<sup>46</sup>, identified four vital building blocks of interaction between the consumer and firm that aid and accelerate the co-creation process. These building blocks are dialog, access, risk-benefits and transparency (DART). These four building blocks (DART) combined together allow the firm to engage its customers in a better fashion and as collaborators<sup>50</sup>. In other words, co-creation provides an opportunity to the firm to connect with the consumers on equal levels and facilitate them to learn from and with consumer about the immediate consumption of consumers<sup>51</sup>.

However, in a study conducted on sample of customers and employees of professional financial services from two nations (Hong Kong and USA) by Chan *et al.*<sup>52</sup>, it was revealed that promoting customer participation could be a double edged sword for firms. It increases the economic value and relational bond between employees and customers on one hand but on the other hand it can also act as a reason for stress for employees and can also hinder their job satisfaction. Piller *et al.*<sup>20</sup> were also of the same view with reference to the usage of social media in co-creation and described the usage of social media as a double edged sword having both pros and cons.

It was found argument that social media provides an excellent platform to consumers to co-create value and thus enhances co-creation.

**Co-creation and new product development (NPD):**

Traditionally, NPD used to be consider as a process which was internal in nature and the consumer were viewed as passive buyers and users. Roberts *et al.*<sup>51</sup>, also advocated the need to change this mind set and to treat customers ability to find out new ways to do things as an opportunity rather than as a threat. But today, the scenario has changed. Today's customers are not only the central and vital element of any NPD process but also are competent in developing new products with little help from the firms<sup>48</sup>.

When consumers are involved and are active participants in the process of co-creation of product and service they humanise the new product development process. Humanising the process is a vital factor in today's era as we can observe widespread dependency on technology and big data<sup>53</sup>. A framework (Fig. 3) has been developed by Robert and Darler<sup>53</sup> in order to explain the co-creation process for NPD, which gives a visual insight of the co-creation process and summarizes key areas. The radical change in customer-producer relationship as a result of emergence of new communication and information technology has a vital implication in new product development<sup>54</sup>.

**Co-creation decisions:** Co-creation has been portrayed as a highly interactive process and collective action are key to this process. Mutual values are created at the end and this process include five stages i.e., interact, engage, propose, act and

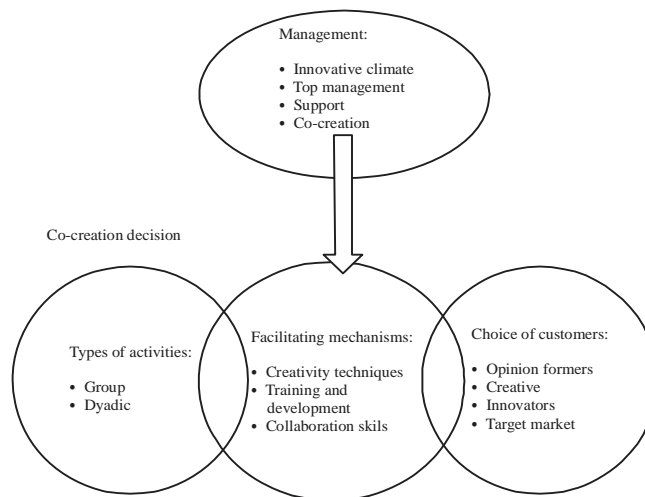


Fig. 3: Co-creation process for NPD<sup>53</sup>

realize (IEPAR)<sup>12</sup>. Co-creation also reduces the risk of product failure<sup>50,10,55</sup> and enhances the success of new products<sup>51,55,56</sup>.

A study done on software firms in Taiwan reveals the fact that user interaction in NPD process is vital in generating superior NPD performance. The firm will develop a better understanding of customer needs and wants and will be able to incorporate changes in early stages of product development thus enhancing NPD performance<sup>57</sup>.

**Social media and new product development (NPD):** “New product development shapes the company’s future. Improved and replacement products and services can maintain or build sales; new to the world products and services can transform industries and companies and can change lives. Companies that challenge industry norms and apply imaginative solutions will delight and engage consumers”<sup>3</sup>.

New product development can be defined as a process which starts from an idea generation for a new product, service or any other offering by the firm to its successful commercialization<sup>49</sup>. In order to improve the new product development process the firms from over the past few decades are increasingly using information technology (IT) tools and services. Social media is one such tool which has been successfully used by the companies in order to design, manage and launch new product and offerings by the company<sup>58</sup>. Social media and particularly the role of social networking sites in new product development (NPD) has been studied by few researchers. Also, SNSs have been proved to be very popular among the youngsters and they have a strong positive attitude towards this smart phone technology<sup>59</sup>. Today, most of the businesses are very eager to find innovative ways to reach out to their customers. They want to know more and more about their customers and want to engage them in new product development<sup>22</sup>. However, the benefit derived as a result of this engagement is not very clear and need further research and clarification<sup>60</sup>.

There are also certain problems faced by social media research in the new product development. The whole analysis is “time-consuming, the data is noisy and the sampling is misunderstood”<sup>61</sup>. The process of new product development can be broadly divided into three phases:

- Inception or idea generation phase
- Design or product development phase
- Launching phase or commercialization

The role of social media in these phases and relevant theoretical background is discussed as follows.

**Role of social media in inception or idea generation phase:**

In a study conducted by Filieri<sup>40</sup>, it was revealed that social media can be very effectively used by the companies at the early stages of the new product development process. The early stage of NPD includes the idea generation and idea screening process and is also referred as “fuzzy front end” (Tidd and Besant as cited in Filieri)<sup>40</sup> of NPD process. The study also evince that product and service innovation can be stimulated by involving customer in NPD initial stages as the inputs given by the customers are original and innovative, fresh and new, workable and attainable and provides value to the organization.

Roberts and Candi<sup>22</sup> opined that the use of SNSs in NPD is in a very incipient stage and the businesses are not fully aware of the benefits expected from the SNSs in NPD process. They were also of the viewpoint that using SNSs for new product launch was more positively related with market growth, profitability and innovativeness, when compared to market research and customer collaboration. A study on Fast Moving Consumer Goods (FMCG) also reveals almost the same result where SNSs were found to contribute notably towards new product launch and customer collaboration and less towards market research for NPD<sup>62</sup>.

**Role of social media in design or product development phase:**

Involving customer in the launch stage of NPD is also related to the new product financial performance (directly as well indirectly) in the market. The past research reveals that when customer are involve in the developmental stage it effects the financial performance of the product negatively and slows down the product reach time to market<sup>63</sup>.

**Role of social media in launch or commercialization phase:**

One of the key driver in top performance of new product in market is its “effective launch”. This is also one of the most costliest step in the process of NPD. Several tactical decision, strategic decision and right time drives the success of new product and services<sup>64</sup>. As opined by Mavale and Rautela<sup>65</sup> in case of services, also the use of social media and online presence is the new norms of the service industry.

**Customer empowerment and NPD:** Engaging customer in NPD process empowers the customers and at the same time

reduces the risk and cost of the company. Customer empowerment not only effects the firms internal NPD process i.e., by providing better products to the marketplace but also effects how company is perceived by the consumers, who stand at periphery (consumer, who do not take part in NPD process)<sup>10</sup>. The opposite of this is also true where we can propose that due to customer empowerment there is a growing trend of transferring more power to customer in NPD process. This can be attributed as a result of growth in technology especially the growth in internet usage by the customer because customer now has access to online design tools and can easily collaborate with people having same interests<sup>48</sup>.

Fuchs and Schreier<sup>10</sup> proposed that customer empowerment can be attached to two important dimensions, (1) Customer empowerment to create ideas for the purpose of new product design and (2) Customer empowerment to choose the design which can be produced by the firm. In the nutshell, customer can be empowered to submit new product ideas or can be asked to “vote” for the idea which they want to be marketed, customer empowerment strategies in NPD as shown in Fig. 4.

Customer, who participate in virtual co-creation process feel empowered. This feeling of empowerment boosts the motivation of participants and this in turn increases the likelihood that the participants will involve in future NPD process<sup>56</sup>.

**Identification of gap:**

The subsequent section elucidates the theoretical linkages for the identification and specification of research gaps which need to be addressed by the researcher. The table below indicate the different linkages established through the literature review between social media, NPD and related concepts. The numerical value in the table depicts the number of articles where linkage was established by other researchers.

From the Table 1 it is apparent that the role of social media in new product development has received very little attention from the researchers and academicians. To the best of the knowledge of the researcher, the work is done outside India and only two research works were based on the same theme. None of the research study deals with Indian consumers or organizations working in India. Most of the studies also deal with the use of social media in the launch stage of new product development as a tool of promotion. Thus, there is a need to analyze the role social media in each and every stage of product development and to analyze the result of different organizations, who have already incorporated social media in their product development activities. It is also vital to depict methods and tactics to incorporate social media in the complete cycle of new product development so that organizations are benefitted from the same.

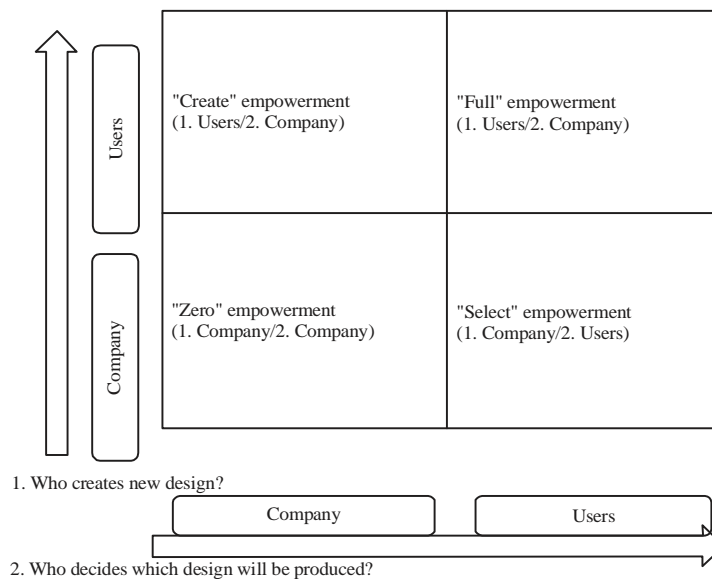


Fig. 4: Customer empowerment strategies in NPD(Fuchs and Schreier<sup>10</sup>)

**CONCLUSION**

Social media has changed the way of communication and is increasingly used as a platform to market the product, services and offering by the organizations and marketers. Social media on one hand provides “dynamic connections” while on the other offers “meaningful relationship” between the customers and the firm. It has the ability to built trust among consumers and can also create satisfaction and sense of belongingness. The need is develop tactics and strategies to inculcate social media into the day to day working of organization. Companies, who are embedding social media in their business process will gradually transform their relationship with customer and created the value in an unimagined manner.

**SIGNIFICANCE STATEMENTS**

The present study tries to understand the role of social media in the process of new product development. All the past studies generally elucidate social media role in the final launching phase of product development. This study contributes towards the current knowledge related to NPDP and use of social media by different organizations. A future study can be carried out in India and can be used by the different organisation while designing strategies and tactics for the use of social media in NPDP.

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Table 1: Number of article where linkage was established by other researchers

Topics/ Themes and Keywords	Customer											Total
	Concepts	Performance management system	Value creation and co-creation	Customer empowerment/ Engagement/ participation	Branding and related concepts	New product development	Social capital and innovation	Youngsters and user behavior	TAM and other related model			
Social networking sites	✓ 5			✓ 2	✓ 3	✓ 3	✓ 6	✓ 23	✓ 4		46	
Social Media	✓ 4	✓ 3	✓ 3	✓ 3		✓ 2	✓ 2	✓ 4	✓ 2		23	
Customer co-creation	✓ 1		✓ 4	✓ 3		✓ 4					12	
New product development				✓ 3							3	
Total	10	3	7	11	3	9	8	27	6		84	



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