CREATING A FIT BETWEEN OPEN INNOVATION AND MASS COLLABORATION – A Conceptual Model

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Abstract. This paper develops an alternative artefact for an open innovation and mass collaboration based on suggested Open Innovation Collaboration Model (OICM) enabled through social media. Web 2.0 technologies are key factors in long-term sustainability of Small Medium Enterprises (SME´s). Business continuity, innovation and the long-term sustainability of SME depend partly on accumulated organizational knowledge. The suggested model helps in enabling and driving open innovation and mass collaboration. Central to this research is the creation of connection oriented dynamic relation between mass collaboration and open innovation. The created fit indicates that OICM ensures the collaboration among peers, which supports in creation of new knowledge and ultimately allows the innovation to happen and enter across the firm.

Keywords: Open Innovation Collaboration Model (OICM), Social Media, Web 2.0, Open Innovation, Mass Collaboration, and Mobile Industry.

1 Introduction

Researchers and practitioners are quite focused to figure out the influence of Web 2.0 technologies (Tim O'Reilly, 2004) on open innovation and mass collaboration. The use of web 2.0 technologies (e.g. wikis, blogs and communities etc.) within an enterprise for the achievement of business goals are known as enterprise 2.0 (E2.0) (McAfee, 2009). But often, even the big players in the market experience serious collaboration problems. The divorce between Nokia and Siemens might be the good example to justify the lack of continuous innovation and collaboration among them. There is a need to adress the logical gap in existing literature of open innovation and mass collaboration to relate with each other to delineate the full potential of inter-related concepts. The evaluation of published literature on open innovation and controversial debates among scholars on mass collaboration through social media encouraged me to propose a conceptual framework. Digital technologies have both direct and indirect impact on understanding and enabling of open innovation and mass collaboration. Web 2.0 technologies give an alternative approach to overcome the collaboration problems among peers and also help in creating an environment for open innovation. Contemporary open innovation allows innovative ideas and external research and development (R&D) to enter into enterprise boundaries. According to Bertola and Teixeira (2003), sustainability and individual´s knowledge need to utilize

beside organization´s knowledge as a source of continuous innovation to protect and improve the organization´s success. We live in a knowledge-driven world, which therefore makes the "knowledge worker" the greatest single asset (Druker, 1993).

There are three core involved actors in the current mobile eco system (users, suppliers, and developers). The term supplier is being used in this paper as a knowledge provider. Users are always innocent, who are seeking information over the Internet. Contrary to it, suppliers are equipped with huge amount of relevant information. Organizations may suffer due to lack of collaboration between all three involved actors, also refrains the innovative ideas away from it. First of all, user generated content has evolved the entire industry traditional concept of knowledge management system (KMS). Second, the developers are always interested in the development of such applications, which should be interest of users particularly and for mobile industry in general. Third, the collaboration among these actors possibly accelerates the innovation process more efficiently. Innovation and collaboration are not an old concepts both in intra-organization and inter-organization by using Web 2.0 technologies. General findings in previous research work indicate that Web 2.0 technologies such as wikis are increasingly becoming popular for collaboration and managing knowledge, which is an important to initiate innovation process within enterprises. Existing literature talks that intellectual capital is the biggest asset of any organization and serves as the greatest source of power (Druker, 1993; Toffler, 1990; Quin, 1992). Under the umbrella of Web 2.0 technologies, social networking is the core application discussed and analysed by the researchers and practitioners (Hammershoj, A., Sapuppo, A., & Tadayoni, Reza, 2009). Furhtermore research shows that these two groups (Researchers and practitioners) confirm that open innovation and mass collaboation improve organizational overall performance.

Zittrain (2008) technology's capacity also pushes the innovation and adds new valuable functionality to the connected applications. Zittrain calls this process ´Generativity´. Since the concept, generative capacity will be presented and analysed in relation to mobile Web 2.0 based social media strategy. Therefore, existance of OICM is an important before justification and creation of fit between open innovation and mass collaboration. The research question addressed in this paper is therefore: *How do mass collaboration and open innovation are being influenced by social media to have a best fit between them?* More focus would be on proposed conceptual framework OICM for generativity instead of exploring the concepts itself. The problem being solved centres on OICM and Web 2.0 technologies. These social platforms are helpful for all involved actors in the mobile industry eco system, rather build a vast business ecosystem for mass collaboration.

The paper is organized into five sections; section two presents the proposed research model OICM. Section three elaborates the literature review. Section four explains "OICM" in relation with social media and generativity for mobile industry. While section five covers the adopted research methodology. The result of the proposed research model is being presented in section six. The last section holds the discussion and conclusion.

2 Related Literature

2.1 Social Media, Web 2.0 and E2.0

Social media is the symbol of revolutionary trend that should be interest of organizations for online business and communication. There seems to be confusion among managers and academic researchers, as what exactly should be included under social media (Kaplan and

Haenlein 2010). According to forrester research, 75% of internet users used “Social Media” in second quarter of 2008. Further Kaplan states that, users have joined social networks, read blogs, and act as a community member. Yet, companies seem uncomfortable in adopting social media, where users get an opportunity to speak freely among workers. The technical advances show that social media is more powerful than traditional way of doing collaboration and innovation. Web 2.0 concept was first presented at Web 2.0 Conference in 2004. Tim O’Reilly introduced the term Web 2.0 in 2004, for the next generation of web services and business models over web or due to the major shift of internet towards a platform. Enterprise 2.0 is not a very different concept from Web 2.0. Enterprise 2.0 is the use of Web 2.0 technologies within organizations for business purposes. McAfee (2009) describes platforms as a collection of digital content where contributions are globally visible and persistent. Some examples of Web 2.0 technologies include: blogs (blogspot.com), wikis (Wikipedia), social networking software (Facebook, in 2004), social media platforms (YouTube), forums etc. This in turn coined the term social media. In this paper, the conceptual framework holds term Web 2.0 as a ´platform´ for the evolution of generativity.

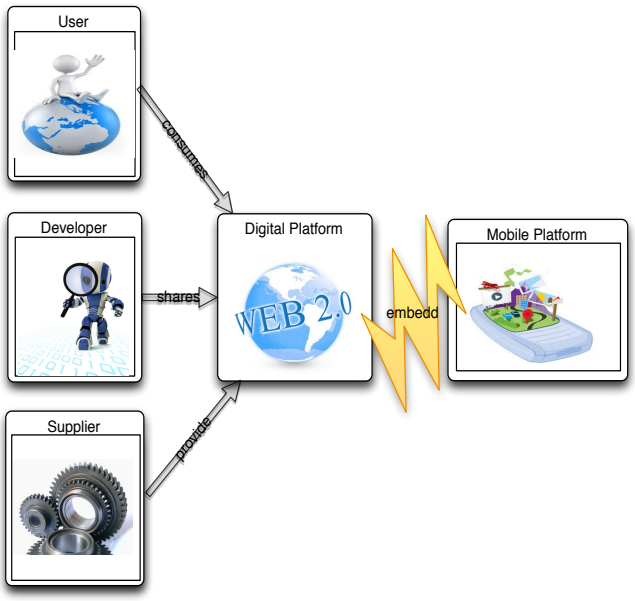
2.2 Mobile Platform

Mobile social networking became a reality in result of smartphones development. The competition of voice and SMS services between the Mobile Network Operators (MNO) has turned the attention of players toward smartphones. The emergence of new business models, where users get an opportunity to access the exciting applications and services by connecting to app stores. The technological platform includes different operating systems (OS), the OS as a platform enables the mobile device to reap the advantages from related processes, the access to Internet applications though mobile social networking. These digital based technological platforms are platforms of the future (Hammershoj et al., 2009). The actors involved in this platform generate content (share experiences or individual knowledge) through collaboration among peers, which may help to accelerate the innovation process for mobile industry. The suggested OICM brings attention to the emergent and inter-related influential activities and designs a pattern among them e.g active participation, flexibility, honesty, collaboratoin, creation and innovation (see details in section 5.1). OICM establishes the foundation for the creation of fit between open innovation and mass collaboration.

2.3 Influence of Web 2.0 on OICM

Author suggests an alternative reliable collaboration among user, supplier and in a result to open up an open innovation. Bessant et al., (2003) calls it joint value proposal or cross value production (Bergquist and Ljungberg, 2001) or value adding contributions (Frank and Shah, 2003; Lettl et al., 2006; Pillar and Walcher, 2006). The leading users, communities in practice (Wagner, 2005) are the most important components for open innovation and mass collaboration. However, individuals who interact across the organization in an open source environment do not matter in principle (Demil and Lecocq, 2006), but reputation and status matter (Bergquist and Ljungberg, 2001). Though I believe that peer production can be more effective through open innovation by adopting a collaborative or tightly coupled interaction among user, supplier and developer. The common experiences and mutual efforts of involved actors improve the overall efficiency. Wegner (2004) argues that communities in practice through regular interaction add skills and involved actros get an opportunity to learn more

about a particular phenomena. I also believe that, learning from peers helps in fostering achieved innovation in a flat organization. Therefore the creation of fit between collaboration and open innovation is justifiable because it is a mixture of emergent ingredients that may serve as an artifect for all aforementoend challenges or it may be called as "suggested social media strategy" for user, supplier and developer.



The resulted 'objectified knowledge' generated and created by users and suppliers which support directly to the developers in developing the right applications. It also ensures the open source environment within the organization and enables external R&D process as well. User´s active participation toward open innovation and mass collaboration in OICM is a key component. In mobile industry, user seeks information, which is equipped by supplier. The developer might also be interested in the this information for an effective development in free and open software society (Bergquist, Ljungberg, and Rolandsson, 2012).

Figure 1: Digital Technologies in relation with eco system of mobile industry

Conventional wisdom and different researchers bring the attention to the problems faced by developers. They argue that individual developer find himself in a complex set of social norms, established values (Bergquist and Ljungberg, 2001) or firms need to be driven by economical and technical motivations (Bonaccorsi and Rossi, 2003).

3 Theoretical Basis

3.1 Open Innovation

The sustainable development and progress for Small Medium Enterprise (SME) partially depends on accumulative knowledge for open innovation and advanced digital technologies. According to the Agarwal & Lucas (2005) technology has strong impact over all aspects of business, when it comes about change in business, economy and society. In the contemporary economic regime of competitive web 2.0 and innovation management are major source of competitive advantages for the firm. The core business of each organization has impact on several other related services within the organization. The strength of competitive business is development of technological and innovative products based on new and complex technologies (Bertola, P. & Teixeira, J.C., 2003). This new and complex digital world is evolving around social media and technologies in one-way or another. The important factor in organization´s success is to protect and improve organizational knowledge as a source of continuous innovation (Bertola, P. & Teixeira, J.C., 2003). There are multiple innovation

approaches e.g. very closed approaches on one end and open approaches on the other (Trott & Hartmann, 2009). Both internal and external R&D are the requirements for any organization to stay competitive in the market. Chesbrough (2003, p.xxiv) captures it in a very interesting manner, when he said "Firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology". The open innovation welcomes the prestigious ideas into an organization. In addition, the open innovation literature has covered the possibility of creation and share outside organization's knowledge (Dittrich & Duysters, 2007).

3.1 Mass Collaboration

Collaboration as an activity has become so common in today's society. It has proven powerful for solving problems, building consensus and helping decision-making processes (Straus and Layton, 2002). Historically collaboration has been governed through collaboration hierarchies, in which every member is controlled and supervised by other top members; employees being controlled by managers and customers are being controlled by organizations (Tapscott and Williams, 2006). However, through the means of new technologies, new scientific initiative, more global market and new forms of collaboration are emerging predominantly initiated by communities and self-organizing.

In this paper, such form of collaboration, referred to mass collaboration (Tapscott and Williams, 2006), enabled by the introduction of Web 2.0 technologies (O'Reilly, 2005).), has led organizations to rethink their methods of managing and distributing information alongside the creation of business value. Furthermore, mass collaboration challenges many mature and established firms, such as BMW, Boeing, and Procter & Gamble to rethink their collaboration activities (Tapscott and Williams, 2006). This was emphasized increasing and surprisingly high number of firms adopting Web 2.0 technologies and services (Libert and Spector, 2008), where it helps organizations to create new and unique collaborative environments (McAfee, 2006). Its adoption is expanding especially for corporate affairs (Grossman and McCarthy, 2007; Hideo and Shinichi, 2007) in which many organizations adopt to improve their products and services, or solve an intractable problem (Tapscott, 2008). Organizations often try to practice the information technology to equip the peers with strong collaboration to speed up the processes and reduce the cost of innovation process (Tenkasi and Boland, 1995) or forming the classes of networks (Youngjin et al 2008). Internalization is the process of learning from the organization, happens when individual acquires organizational knowledge, and it is only by becoming a member of it (Huysman, 2002). However, some researchers relate knowledge creation and sharing with open innovation. Organizations act in open systems to create knowledge and being innovative (Thompson, 1967) while keeping the external environment in view through collaboration strategy (Lawraence and Lorsch, 1967).

4 Research Method

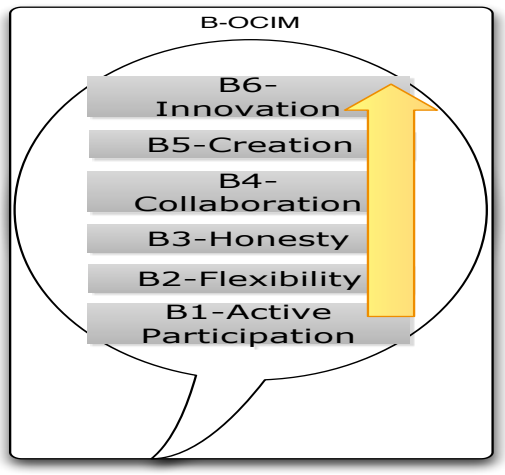
Most often the selected methodology either quantitative or qualitative is not being guided by the chosen strategy. In this paper, literature review strategy has been chosen. Since it's a qualitative approach therefore the proposed approach is based on emerging theoretical concepts in the information system world. Consequently creating a fit between open innovation and mass collaboration through web 2.0. Such type of approach comes up with an

opportunity to have a deep understanding of research problem. Also shows the right path to find the real gap in the existing knowledge (Creswell, 1999; Miles & Huberman, 1994). Another reason behind the choice of literature review as a methodology was a factual inspiration to share with the colleaques that what I have learned from the literature and the implications of interplay of emerging concepts (open innovation and mass collaboration) can be most fruitful (Webster and Watson, 2002).
Author has found the controversial but relevant articles, journals and books to the related emergent concepts. During thorough literature review the key factor was to collect authentic and updated material. Author has used videos, presentations, blogs, scientific reports, and commercial articles to keep him more updat to capture the real gap in the existing literature. Most of the literature was retrieved from online conferences, journals and library databases of Göteborg, Chalmers and Jönköping universities. It is worth noting after analzing the past to prepare for the future (Webster and Watson, 2002) that little research has addressed open innovation together with mass collaboration however, saperately there are promosing literature available on open innovation and mass collaboration.

5 Proposed Conceptual Model

5.1 Open Innovation Collaboration Model "OICM"

OICM is basically a set of actions for open innovation and mass collaboration. Involved actors i.e. user, supplier and developer may perform these actions through Web 2.0 platforms. Web 2.0 plays core role at each layer of OICM to establish a better collaboration and for open innovation. In other words, internal social media strategy through Web 2.0 platforms is the pre-requirement of the best fit between open innovation and mass collaboration.



*OICM is a set of actions performed by user, supplier and developer at each layer for,
- Open Innovation
- Mass Collaboration
* Web 2.0 is a pre-requirement of all actions
* OICM initiates from bottom to top
*OICM is a driving force for open innovation and mass collaboration.

Figure 2: Suggested Open Innovation Collaboration Model (OICM)

Active Participation

The knowledge discovered by users, communities, organization and network support the development of business innovation (Bertola, P. & Teixeira, J.C., 2003). Most often, Users have close interaction with product in different perspectives e.g. physically, emotionally and conceptually. Some scholars have argued that web 2.0 is reshaping and changing the way in

which individuals work and interact with each other. It also ushers in new ways of collaborating and sharing (McAfee, 2006). The model OICM works from bottom to top. At first layer, active participation should be among peers to establish a better collaboration and sustainable innovation. The active participation is an activity, which needs to be tackle and manage smartly because other layers are dependent over it. Each layer provides solid and logical ground to the other layer above to it. For example for active participation web 2.0 itself is the most logical and valid starter as a pre-requirement. The second layer flexibility depends on active participation and so on. Therefore active participation initiates to develop a flexible mode for open innovation and mass collaboration among peers. According to (Brown and Duguid, 1991: Gherardi, 1991) letting people work together supports in the learning process and peers advocate for learning by actively participating. Hence active participation is a key factor in creating a fit between open innovation and mass collaboration.

Flexibility

Flexible organizations have flexibility to establish a flexible collaboration, but conventional wisdom says it's a challenging task to make a firm flexible and to maintain the flexibility afterwards. In closed innovation, firms keep strict control over their R&D processes. This approach does not allow the actors to participate horizontally across the organization in a flexible manner (Wikhamn et al., 2011). Again, active participation based on web 2.0 provides the true flexibility for collaboration among user, supplier and developer. Most importantly this practice enables the enterprise to be an innovative because flexible organizations always welcome creative ideas no matter from shop floor employees or around the globe. It is better to "harness the collective intelligence of a group of people and thus yield better or more accurate information than any individual within the group possessed" (James Surowieki, 2004).

Honesty

In order to have meaningful fit between open innovation and mass collaboration honesty needs to be there in true sense. Honesty is an intangible asset but without honesty it's extremely challenging to establish a best fit. For knowledge creation, knowledge sharing and to gather individual´s wisdom, there is a strong need of exchange of information among employees. Even, shared knowledge only becomes organizational knowledge, when the members of the organization accept it (Huysman and de Wit 2002; Von Krogh et al., 2000). The process of objectification is not always a conscious one, and often takes long-drawn (Von Krogh et al., 2000). If honesty is there then objectified knowledge can be achieved more easily. Huysman and de Wit (2002) illustrate objectification with the example of a group of technicians who have learned a new way of fixing a machine. Their operational knowledge remains local until it is accepted by the organization for example as published manuals in the training of new comers. Even if a firm has so called better collaboration but organizational knowledge can not be transferred from implicit to explicit and vice versa without honesty.

Collaboration

The successful execution of first three layers in OICM stimulate the organizational environment for collabortion. Generally, researchers believe in a philosophy that being a part of project relevant piece of information in right time for involved actors can play a vital role for inside business innovation. The secret weapon is a smart approach (i.e. collaboration), which is requirement of all organizations to meet their IT and strategic goals. If it's a

voluntary process then honesty must be there for best fit between open innovation and mass collaboration. The smart approach is based on innovative ideas, and such ideas come into existence in a result of mass collaboration. But for firms this secret weapon is likely equal to discover a diamond.

Organizations struggle to have competitive solutions against challenges for instance, user satisfaction, and demand for relevant knowledge, useful applications and higher R&D costs (Wikhamn, Ljungberg, Bergquist & Kuschel, 2011). I believe, if ten persons in a team are working efficiently and team is productive but not satisfactory and smart enough. It does not necessarily mean that all the players in a team have same level of technical and operational expertise, managerial experience, motivation and ideas. But there are always smart people around us in a society who can become a part of ongoing-projects through mass collaboration (Tapscott and Williams, 2006). The mass collaboration project InnoCentive, has specifically created for the global community, with a main goal to allow researchers, scientists, engineers, inventors, R&D groups and companies to collaborate in order to achieve solutions for research and development problems in a broad range of disciplines, such as, chemistry, biology, engineering, mathematics, computer science, entrepreneurship, as well as other fields (Tapscott and Williams, 2006; Harrison and Sullivan, 2006; Lakhani et al.,2007; Dodgson et al., 2008; Libert and Spector, 2008). This mass collaboration project attracts more than 80,000 independent and globally dispersed problem solvers, coming from more than 150 countries (Lakhani et al., 2007) helping more than 34 mature firms, including Proctor & Gamble, Dow AgroSciences and Eli Lilly (Brown and Boulderstone, 2008) these firms pay to problem solvers from $10,000 to $100,000 per solution, in addition to subscription fees (Ahonen and Lietsala, 2007).

Creation

Creation of new knowledge is also important for the organization to stay competitive. Wikis and communities act as instrumental tools in facilitating information exchange and thus the use of Knowledge Management System (KMS) (Wegner, 2004). Unfortunately, KMS have their shortcomings, and are not always used by employees. While traditional collaboration is mainly dedicated to people sharing common interests, goals, abilities and areas of expertise, mass collaboration finds its path and is empowered by the large number of individuals coming from various knowledge areas, holding different interests, and possessing a diverse range of expertise and specializations (Tapscott and Williams, 2006; Panchal and Fathianathan, 2008; Libert and Spector, 2008).

Social media has been used in recent times to enable and support collaboration and knowledge management efforts (Yates et al., 2010). Wikipedia, the online collaborative encyclopaedia that attracts millions of Internet users from all over the world enabling them to view, create, amend, edit or remove articles in different subjects. This mass collaboration project, currently has about “10 million volunteers collaborate over the web to create an encyclopedia which consists of about 9.5 million articles in 256 languages” (Panchal and Fathianathan, 2008, p.1). Some researchers have cited media tools as conventional tools such as blogs and wikis or Wikis facilitates in shaping the knowledge creation (Yates et al., 2010). Wagner (2004, 2005 & 2006) believes wikis and blogs enable knowledge creation and sharing through collaboration. According to Keyes (2006) the new strategy to knowledge management as a “Community of Practice (COP)”. Communities are based on interest and expertise. It brings together people with a common interest or a common skill and gives them a place to share and exchange knowledge and ideas. Clayton M. Christensen, professor of Business Administration, Harvard Business School said:

> You can´t just rely on data, you need theory to see into the future. Otherwise you´ll keep playing when the game is over

Innovation

Exchange of knowledge does not always necessarily mean that the knowledge would be collectively accepted. Shared knowledge only becomes organizational knowledge, when the members of the organization accept it. The already accepted knowledge is known as objectified knowledge (Huysman and de Wit 2002; Von Krogh et al., 2000). This is the starting point, which helps to initiate innovation process to happen within the industry. Because the process of objectification is not always a conscious one, and often takes long-drawn (Von Krogh et al., 2000). Therefore, innovation is always been mystery for firms. Von Krogh et al (2000) refer to the process of objectification as globalizing local knowledge. This globalization for local knowledge is possible through acting globally (Tapscott and Williams, 2006) or the nature of mass collaboration (at fourth layer of OICM) - its availability based on Web 2.0 technologies on the Internet- facilitates its spread all over the world. This enables firms to gain access to new ideas and solutions through the engagement of more innovated and open-minded users sitting in different corners in the world. The achieved shared knowledge adds value in the core business and this added value is 'internal innovative ideas' or the 'competency' in other words known as 'closed innovation'. Another stimulation towards the innovation process by adding value can be the network value, which adds value by sharing the new discoveries. Here added value may be 'external innovative ideas' through 'open innovation'. Chesbrough argues that firms need to advance their technologies to have better grasp on the market by adopting the open innovation as a strategy. Chesbrough, Vanhaverbeke, & West, 2006, p. 1 says:

> Open innovation is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively

Hence I believe that by creating knowledge with honesty and active participation would ensure the flexible organization. After that it initiates collaboration among involved actors to create knowledge and get objectified knowledge, in a result allow the open innovation to happen and enter across the organization. Thirdly, Web 2.0 technologies may support mobile industry in fostering the achieved innovation by adopting different patterns and strategies in a proposed OICM. I believe that stable and effective collaboration among employees would be ten times better in knowledge creation and sharing phase.

6 Results

Social media is predominant and has proven to be the most efficient way to participate, innovate, collaborate, and create information and knowledge for the firm.

6.1 Social Media Creates Fit Between Open Innovation and Mass Collaboration

The social media facilitates to establish a best fit between open innovation and mass collaboration. In othe way around, the proposed conceptual model may be embed into strategy for a firm as a 'social businesses' based on the logic 'fit between open innovation and mass collaboration'. Web 2.0 tools can be applied in organizations in several different ways to

provide the solid foundation for open innovation and mass collaboration. Web 2.0 technologies use to initiate and accelerate OICM within business organizations in pursuit of their overall IT and strategic goals. Central to the concept of 'Web 2.0' is its ability to collaborate among peers, harness the collective intelligence of the masses, innovate and create knowledge. Digital technologies have acted in modern economies as a disrupting force (Christensen, 2000). The proposed conceptual model OICM supports an artifact for user, supplier and developer to have a successful collabotaion and open innovation. According to Wikhamn et al., (2011) open innovatoin and transformation across the geo-graphical and organizational boundaries are based on social media. It reduces the risk of losing the precious capital asset also minimizes the cost of traditional communication setup both for inter-organizations and intra-organizations.

6.2 Mass Collaboration

Mass collaboration is characterized by four main principles introduced by Tapscott and Williams (2006): peering, sharing, openness and acting globally. All four of these characteristics are clearly facilitated by creating a fit between open innovation and mass collaboration. Unlike traditional intranets, platforms and the web 2.0 provide an open environment for collaboration. Peering is simply allowing users not only to participate in the creation and development of products and services, but also coactively share, classify and rate contents that enhance the production, and is mainly known as 'peer production' (McKercher and Mosco, 2007; Wilkinson, 2008). Through collaboration, employees with similar interests come together, forming peer groups and helping each other in hard times. Tapscott and Williams (2006) said Openness is associated with "candour, transparency, freedom, flexibility, expansiveness, engagement and access". The term 'Openness' in this case refers to attributes of transparency and leaving organizational boundaries porous to external ideas, which should be facilitated through active participation with honesty. Firms may achieve collaboration but to be on safe side alternative proposed model might be helpful to create a best fit between open innovation and mass collaboration. The suggested conceptual model acts globally, because OICM may provide ground for social media strategy, which can be used broadly across the mobiel industry. The created fit has got potential to integrate in the web and therefore can be accessed virtually from anywhere around the world through the Internet.

6.3 Open Innovation

The OICM comes up with an opportunity to expand the combination of previously disconnected connection of knowledge and capabilities to reconnect and support in fostering an innovation for firm. OICM also promotes innovation to enter across the firm. Consequently, OICM projects and draws a clear standing and literature on two bodies, i.e. 'open innovation and mass collaboration' through social media. The model works from bottom to top and at sixth layer, model ensures that innovation has to happen and enter across the firm but proper interaction and systematic approach is required to adopt. Model as an artifact depicts clearly that open innovation and mass collaboration are not two separated bodies because open innovation is not independent of collaboration. Social media enables open innovation both internally and externally for firm. The value capturing and creation of fit is the capacity to organize and carry out innovation work to mobilize organizational processes

and to be managed skillfully. The chesbrough's research work in last decade emphasis on innovation work, settings for collaborative efforts and interaction between user, supplier and developer (Lichtenthaler, 2011; Huizingh, 2011; Enkel, Gassmann, and Chesbrough, 2010) or in open source software communities (Bergquist et. al., 2011). The significance of inter-related concepts 'open innovation and mass collaboration' are important to understand contextually and procedurewise to have a sustainable solution. Jan Ljunberg, professor of Informatics, IT university of Göteborg, during the interview in 2010 said:

> IT opens up new possibilities, creates new challenges and functions as a disruptive force in the traditional innovation process

7 Discussion

The paper introduces an alternative artefact in a form of conceptual model OICM, which is driven by Web 2.0 technologies. Existing literature does not talk much about the interplay and potential of emerging concepts 'open innovation and mass collaboration'. It is not fair to argue that suggested model OICM is independent of previously existing wikinomics concept. OICM substantially contributes in creation of best fit between open innovation and mass collaboration through web 2.0 technogies. Contemporary OICM adds value in academic literature to examine and explore one step a head by bringing previously stand alone concepts together. In OICM, from bottom to top somehow four pillars of wikinomics are playing vital role. Active participation (being open), flexibility, honesty, collaboration (peering and sharing), creation and innovation (participants need to act globally). Research into interdisciplinary subjects can be quite challenging. Simultaneously I have had to address open innovation, mass collaboration and web 2.0 (which are huge academic fields of its own). There is a very big tendency to lose sight of the main research purpose in such research work. However, it is worth noting that case study of particular industry would produce more credible results. Also case study would shed light on a phenomena to testify, and will help to explore the actual potential of OICM, especially when it comes the implications of such models in practice. I do believe that created fit between mass collaboration and open innovation theoretically sheds light on radical new way of doing business by adopting an OICM as a social media strategy.

7.1 Conclusion

The paper revolves around an alternative possible artefact in the form of conceptual framework for complex problems among peers within and outside the organization. In order to give a clear understanding to the audience, the proposed OICM was used to create a best fit between two inter-related and dependent concepts i.e. open innovation and mass collaboration through social media. Web 2.0 facilitates in connecting knowledge seekers (users) with knowledge providers (suppliers) by way of extensive social networking. The various tools are available on these platforms such as wikis, blogs and communities etc. These tools facilitate flow of information at different layers of OICM, which shapes the attitude of participants towards the value creation. The whole cycle of OICM from bottom to top ensures high performance IT work systems for the users, developers and suppliers and the organization itself. The deployment of OICM in organization could reduce the complexities among peers by providing collaborative and innovative enviroment. The findings in this research could precede further work to testify the proposed model by using real case study. Further research

could be an integration of OICM with existing traditional IT infrastructure. It is hoped that research will continue in this exciting and emergent field in order to help unleash and leverage the full power and capacity of Open innovation and mass collaboration.

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