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EXTENDED ABSTRACT

“The new company leaders in innovation will be those who figure out the best way to leverage a network of outsiders” (Pisano&Verganti, 2008). Recently a high number of innovative enterprises faced different competitive markets by promoting innovation through open software/hardware & innovation (OSH&I) web-based platforms, which allow the collaboration of individuals and companies and the so-called crowdsourcing. The OSH&I are the novel keystone for the aggregation and integration of different members in an innovation community. Consequently a key issue concerns the identification of the most successful strategies both for driving motivations which could encourage them to play an active role in the contents development and both for detecting solutions to remove or mitigate the hindrances to an effective sharing of the efforts and benefits arisen by users participation. These points concerning the economics and dynamics of the cooperative systems for innovation are critical and this work would like to identify the different forms of rewards used inside the most successful OSH&I to promote innovation and to identify how to design the system of incentives referring to the peculiar innovation process, through the following research questions:

• What are the most effective incentives for an active user participation? And the main obstacles?
• What are the suitable mechanisms and rules which motivate, engage and inspire the members of communities and dynamically ensure competences adaptivity (fit)?
• Are the mechanisms of cooperation and collaboration a function of the stage of life cycle of the innovation process?

By means of literature analysis and 116 OSH&I scanning, we mapped all incentives useful to enhance users’ motivation, outlined in a framework by kinds of incentives. The results highlight that the suitable mechanisms and rules to promote long-term and innovation-oriented strategic cooperation among companies can be generally based on two mainstreams:

Intrinsic motivations
• Individual: the psychological-emotional sphere of individuals who choose to enter the project and to collaborate, as personal learning and knowledge exchange (vonHippel&vonKrogh, 2003).
• Social: the collective sphere of the individual who joins a community of collaborative innovation, as social influence and social identity and exchange information (Ridings&Gefen, 2004).

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Extrinsic motivations

- Economic: all the actions that lead, directly or indirectly, to economic advantages for the contributor - economics of open source and technology sharing (Lerner&Tirole, 2005) and economic incentives as: economic cost of no participation (Arrow, 1962); possibility of internalizing the research externalities through specific contracts, agreements and patents (Parker&vanAlstyne, 2005); user’s reputation effects on the leadership played in future innovation projects and his bargaining power in profit sharing (Holmstrom, 1999); the value of reusing (Baldwin&Clark, 2003).
- Individual: all actions that lead to professional advantages for the contributor, as reputation (Kollock, 1999).
- Social: all the obligations and responsibilities arising from the social sphere and which have effects on community. Social network dynamics refer to the building of social capital and facilitation of collaborative relationships through diversity management inside the communities of practices (Lave&Wenger, 1991) where new practices and concepts emerge from the interaction and socialization of contributors.

Clustering the 116 OSH&I web-platforms in 8 groups basing on participation, we highlighted the best motivations that increase participation. Some results are clearly in line with the demonstration by Roberts et al. (2006): use value decreases participation, while monetary rewards increase it (from 6.03% for high participation to 1.72% for low). Also free final products seem to be a motivation that increase participation, also if this affirmation has to consider that the websites in our sample with this characteristic are only two (Wikipedia and Linux). Other motivations are not clearly related to the website success: the percentages of not monetary rewards are spanned indistinctively to participation, that means that not monetary rewards cannot alone determine a high participation.

The research shows how motivations and the levers to drive them are linked to different stage of the innovation process (foresight/creativity/design) inside an industry and of the beneficiaries of a community. The mechanisms of cooperation and collaboration are a function of:

- users of the community;
- stage of life cycle of the innovation process;
- product/service and industry typology;
- open innovation method (platform business model).

The power of rewarding and of extrinsic motivations is limited. In the companies extrinsic motivations are schedules, deadlines, threats of being fired (the stick) and salary increase, bonuses (the carrot). Surprisingly for manager these are the best ways to motivate their employees, but they are also the least successful tools as people are most creative when they feel motivated primarily the interest, satisfaction, and challenge of the work itself – not by external pressures (Amabile, 1998).

As stated by Ariely et al. (2009) as long as the task involved only mechanical skills, the bonuses worked as they would be expected: the higher the pay, the better the performance. But once the task called for “even rudimentary cognitive skills” a larger reward “led to poorer performance”. So the conditional incentives works well when problems are easy with simple rule, simple tasks and one clear solution. But don’t work in many circumstances, in the accomplishment of complex tasks (the real one) which requires creativity and have different solutions. Even they are counterproductive.

The intrinsic motivations works better with complex tasks. And the most important one are desire to do things because have sense, because we like it, because interesting and because part of something important, something that matters. The passage from extrinsic motivations to intrinsic motivations is the passage from the market relationship to the social one. The market exchange is based on the compensation among rewards and ideas/work/time while the social one is based on commitment, trust and intrinsic compensation. Nevertheless the analysis of literature and of the first open innovation platform suggest that in the context of

online communities the intrinsic motivations are sufficient to explain the individual participation and contribution; but in the context of collaborative innovation the intrinsic motivations must be accompanied by at least one extrinsic motivation, an incentive or reward, which makes possible the collaboration. So the intrinsic motivation is therefore a necessary condition but, in most cases, not enough.

Our research shows how the most important reward for participation and success of the website connected to innovation is the monetary one. IPR and not monetary rewards influence the participation of the user in the platform, but seem to be not directly connected to website success. The use value seems to have a negative effect on participation. It is necessary to discriminate from short term use value and long term use value: in fact the user can contribute with a finality of short period in the platform, but then return back anymore because he had only an interest of a moment and not of long period. Referring to Ariely’s research and to the behavioral economy, we can affirm that users see the web-based platforms as a “work” place and not as a “social” place, and in this line the highest efficacy is reached with economic motivations. To increase the efficacy of the intrinsic motivations on website success and participation is a not easy pattern, it in fact implies to move from a “work place” logic to a “social place” logic.

REFERENCES


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