

Digital world of co-creation: strategy and process

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Abstract. The business world, irrespective of the type of industry, has become increasingly complex and amazingly competitive, and companies have to move towards innovation as one of the few sustainable sources of competitive advantage. Innovation is now considered to be one of the top priorities for most major companies in the world. Innovation has become a necessary process, widely accepted, but beyond their enthusiasm for bright ideas, most leaders know that in order to be successful in the long run, they need to develop a strong culture of open innovation and to accept that closed innovation is no longer enough to be competitive on the market. Thus, innovation challenges are considered to be one of the top priorities for most major companies in the world. From this point of view, this paper aims to highlight the strategic implications of the open innovation in co-creation processes, to present collaborative stages in terms of product development and to provide valuable examples of co-creation process and customers' engagement in various industries.

1. Introduction

Due to the fact that innovation has become more and more an open process as a result of companies' transition from closed business models to open-ended business models, as Chesbrough calls them, companies have also become more and more effective in creating and capturing values [1]. By practicing open innovation, which has become increasingly appealing due to a growing division of labor, companies are developing ideas that they do not immediately bring to the market but seek collaborators to put them into practice or partners to handle the marketing of these ideas. In this context, the digital world plays a significant role, as shown by recent research on digital marketing and virtual consumers. They have revealed the growing involvement of consumers/ stakeholders in all aspects of marketing processes, from product innovation to printed and broadcast advertising. Consequently, switching from a traditional business model to a business model based on open innovation is an important step taken by many companies that have grasped the importance of their ongoing business development, focusing in particular on 3C: co-creation, crowdsourcing and community.

Nowadays, more and more companies understand and agree that for the development of products and/ or services, communities, crowds, stakeholders represent the driving force, the main engine. In this respect, in order to achieve an interactive development of products and/ or services, companies delegate the main tasks to the crowd (empowers people), as stated by Bujor & Avasilcai [2]

2. Co-creation as a strategy for innovation performance

Among open innovation strategies, co-creation is an important economic strategy that has already been adopted by companies from different industries, from the traditional ones (e.g. automotive, consumer

goods, food and beverages) to most emergent ones (creative industries, e.g. IT, fashion design, interior and ambient design, graphic design, architecture), highlighting thus its importance as key resources for innovation performance, and based on so-called Client Knowledge Management (CKM) [3].

Most of the co-creation definitions offered by the literature automatically lead to a collaboration, namely a creative collaboration. This type of collaboration invites both parties involved in co-creative initiatives to be prepared to take risks, open their hearts and minds to create something new or re-create something already existing. In this way, value is increasingly created by both barricades: customer and producer.

The most common definition of co-creation was provided by Prahalad and Venkat, according to which co-creation is “active, creative and social process, based on collaboration between producers and users that is initiated by the firm to generate value for customers” [4]. Value refers either to new concepts and solutions or new products and services, and the collaborative development of this new value takes place between the company and experts and/ or stakeholders such as customers, fans, suppliers, etc [5].

Co-creation, as a strategy of open innovation, generally addresses three main issues, according to Neumann:

- is based on the relationship between a company and a group of stakeholders, most of the time its customers;
- involves working with end-users of a product or service, sharing knowledge, experience and resources to finally offer a unique experience using the company's value proposition;
- is a way to involve customers directly, even in product development processes [6].

According to Belkahla W and Triki A, CKM, defined as the combination of the knowledge management and the client/ customer relationship management principles, increases two main roles that customers have during the co-creation process: that of co-creator, and that of co-producer, the last one being considered by Hilton and Hughes a specific component of the co-creation process, related to customer specific tasks that may occur anytime during the co-creation process [7].

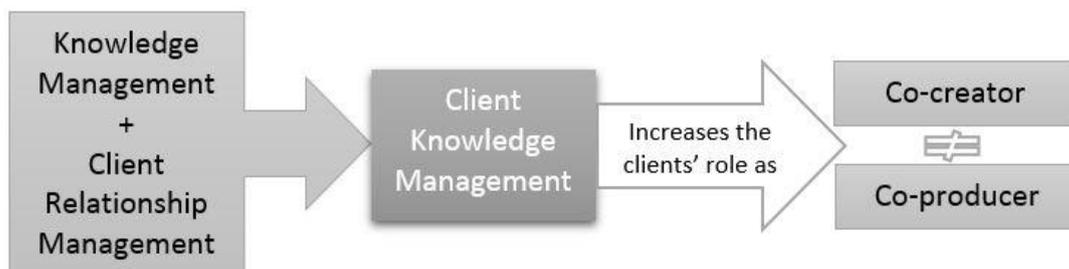


Figure 1 Client Knowledge Management approach, developed according to [7].

Starting with integrating innovation as a practice-based co-creation process, Russo-Spena & Mele developed the Five “Co-s” for innovation Model, which includes: co-ideation, co-evaluation, co-design, co-test and co-launch [8]. Each “Co-“ represents a stage in the innovation process that results from dynamic and ongoing interactions between resources, actions and a group of actors that are interconnected through a strong and dense network.

In fact, on this occasion, Russo Spena and Mele make two proposals: the first proposal is that co-creation in the innovation process can be disrupted in several “Co-s”, surrounded by value-generating processes from multiple stakeholders, while the second relates to the fact that co-creation of innovation can be seen as a set of practices [8].

According to the model proposed by Russo-Spena and Mele, each stage of innovation can be considered as a process of finding new ways to co-create value through more effective participation in the integration of resources from a multilateral perspective, as Mele et. al. highlight and Gammesson also points out [9].

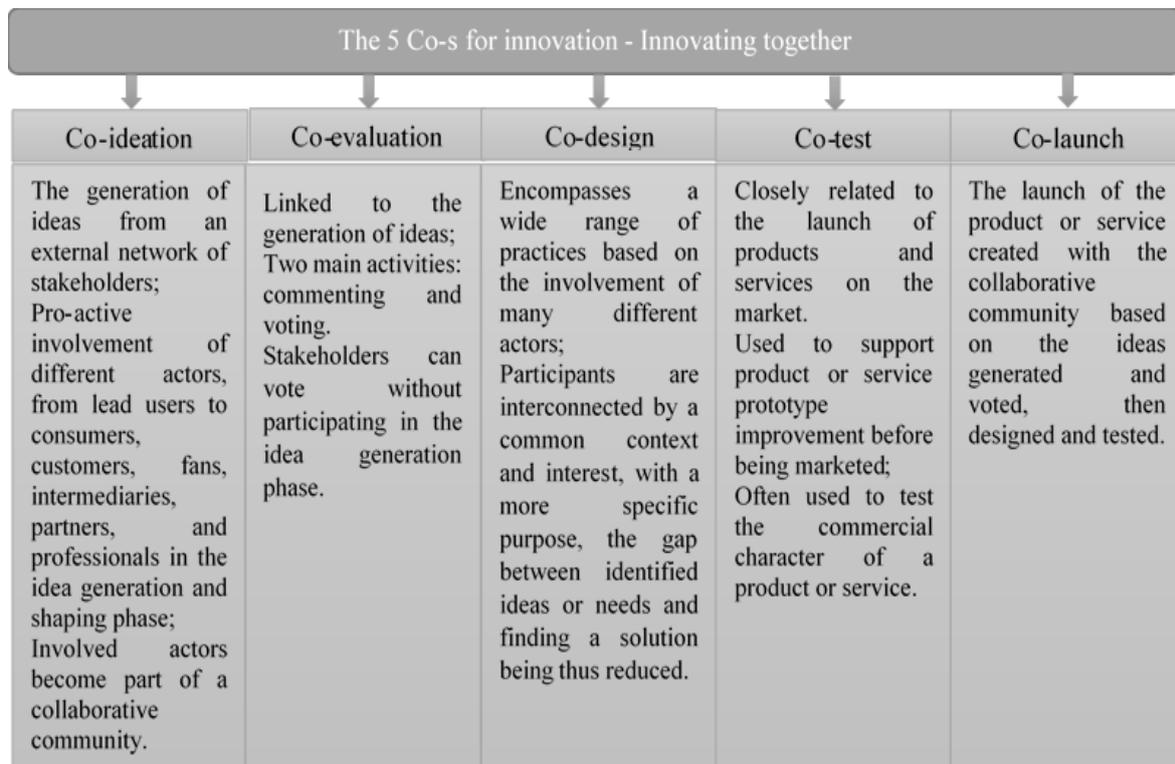


Figure 2 Innovation stages in terms of collaborative engagement [8].

Each stage of the collaborative innovation process reflects a set of activities which are relevant in order to achieve the symbiosis between developed processes, necessary resources and customers' engagement.

From this point of view, it seems important for companies to continuously explore digital environment in order to respond and to adapt to the turbulent market requirements.

3. Co-creation initiatives: examples from the industry

Co-creation initiatives did not appear in the context of Web 2.0, but they managed to flourish because of the fact that these platforms included many forms of co-creation marketing. Since then, as Chaney stated, Web 2.0 platforms have been seen as social and consumer communities that have become "ambassadors", "buzz agents", "intelligent crowds", and "participants" that transform the product experience [10]

In light of the above, the authors of this paper have conducted an analysis of some of the companies belonging to different types of industries, from the most traditional to the most emerging, as is the case for creative industries that have developed dedicated instruments, as a specific meeting environment for stakeholders, to host innovation and to co-create together.

Consequently, there can be seen that companies seek to implicate different type of stakeholders, especially customers, into own product development process as valuable sources of knowledge and innovation. However, depending on the industry affiliation of the companies the innovation initiatives are concentrated more or less on the revealing of the stakeholders' creative potential. It seems relevant to enhance the collaborative relations in designing the product in order to achieve a high level of product customization.

Table 1 Examples of business that have developed websites in order to host open innovation, specifically co-creation with stakeholders [11-18]

Type of industry	Company/ Project	Co-creation process's stages	Engaged stakeholders	Key aspects
Automotive	BMW/ <i>Co-creation Lab</i>	Co-ideation Co-design	Employees Students Clients (BMW owners)	Develops new designs and functionalities; Ideas gathering from professionals; Brainstorming with employees.
Automotive	Volvo/ <i>Involve</i>	Co-ideation	Group experts Students Universities	Innovative ideas gathering based on specific topics; Creating concepts of future product; Establish long term collaboration and partnership.
Consumer Goods	Procter & Gamble/ <i>Connect and Develop</i>	Co-design	Experts Intermediaries Managers Partners Professionals	To generate and develop new solutions; To design prototypes.
Food & Beverage	Barilla/ <i>Barilla Factory</i>	Co-ideation Co-evaluation	Creatives Artists	To express themselves in different creative languages; Dialogue and create new landscapes and new stories together; Share the Barilla Factory projects with all friends; Vote on the attractiveness of the design and the best videos.
Food & Beverage	Heineken / <i>Ideas Brewery / Innovators Brewhouse</i>	Co-ideation	Entrepreneurs Inventors Digital innovators Consumers Suppliers Experts	Creating innovative packaging; Recycling and up cycling objectives; Creating consumers' consumption experience; Developing new technologies through stakeholders' collaboration.
Fashion Design	A Way to Mars	Co-ideation Co-evaluation Co-design	Designers Professionals Creatives	Share ideas by posting on the co-creation forum Evaluate ideas fairly and equally Provide feedback and help improve designs.
Music	Propellerhead	Co-ideation Co-test Co-launch	Passionate about music Producers Composers	Suggest new ideas and solutions for company software development; Test the software development project.
Graphic Design	99Designs	Co-ideation Co-evaluation Co-design	Clients (companies) Designers (graphic)	Require various graphic representations (e.g. logos); To opt for one-to-one help; To propose, provide graphical representations as required; Appreciate, vote on the projects provided; Set the reward method.
Graphic Design	Threadless	Co-ideation Co-evaluation Co-design, Co-test Co-launch	Consumers Fans Designers Collectors Artists Managers	To propose designs; To appreciate, evaluate the attractiveness of the design; Take responsibility for advertising.

4. Conclusions

The most successful companies around the world are deciding to adopt the new open innovation model due to the competitive advantages they gain by digitizing innovation and engaging customers in virtual communities where they can share ideas, bring new perspectives in terms of packaging, new technologies or new methods for designing products.

So did the companies that were the subject of the analysis presented in Table 2, who understood the importance of direct involvement of their own consumers in the co-creation of products that correspond to their wishes or needs. For some of them, co-creation is the chance that their dream will become reality, while for the companies, it represents the chance to improve their innovation performance. Consequently, co-creation is about creating value for both parties, and with the digitization of innovation all became even easier, the involvement of the consumers in the process of co-creation being possible irrespective of the geographic position of either party.

In terms of strategic implications, the co-creation process development became a keystone in value creation and capturing. The continuous engagement of stakeholders seems to have a strong impact on designing activities and ensures the product conformity with customers' expectation. As it can be

observed the co-ideation and co-design stages are widely explored by various companies from different industries.

By using virtual environments and open innovation techniques companies are increasing their own visibility on the market and profitability.

References

- [1] Chesbrough H M 2007 *Why Companies Should Have an Open Business Model* MIT Sloan Manag Rev 48(2) 22
- [2] Bujor A and Avasilcăi S 2018 Open innovation in creative industries. Part I: Innovation and design *IOP Conf. Ser.: Mater. Sci. Eng.* 400 062007
- [3] Belkahlia W and Triki A 2011 Customer knowledge enabled innovation capability: proposing a measurement scale *J Know Manag* 15(4) 648-674
- [4] Prahalad C.K. and Ramaswamy V 2000 Co-opting Customer Competence *Harv Bus Rev* 78 (1) 79-87
- [5] Fronteer <https://fronteer.com/what-is-co-creation/>
- [6] Neumann M 2017 Open innovation vs Crowdsourcing vs Co-creation <https://www.wazoku.com/open-innovation-vs-crowdsourcing-vs-co-creation/>
- [7] Hilton T and Hughes T 2008 Co-production and co-creation using self service technology: the application of service-dominant logic, *Otago Forum 2 – Academic Papers*, Paper no 4
- [8] Russo-Spena T and Mele C 2012 “Five Co-s” in innovating: a practice-based view *J Serv Manag* 23(4) 527 – 553
- [9] Gummesson E 2008 Customer centricity: reality or a wild goose chase? *Euro Bus Rev* 20(4) 315-330
- [10] Chaney D 2012 The Music Industry in the Digital Age: Consumer Participation in Value Creation *Int J Arts Manag* 15(1) 42-52
- [11] Avram E 2016 Case Study: BMW in Avasilcai S and Hutu C A (eds) Innovation through co-creation in online era *Performantica* 147-182
- [12] Avram E 2016 Case Study: Volvo in Avasilcai S and Hutu C A (eds) Innovation through co-creation in online era *Performantica* 183-218
- [13] Agafitei I G 2016 Case Study: Procter & Gamble in Avasilcai S and Hutu C A (eds) Innovation through co-creation in online era *Performantica* 255-280
- [14] Bujor A 2016 Case Study: Barilla in Avasilcai S and Hutu C A (eds) Innovation through co-creation in online era *Performantica* 309-336
- [15] Rusu G 2016 Case Study: Heineken in Avasilcai S and Hutu C A (eds) Innovation through co-creation in online era *Performantica* 377-402
- [16] Bujor A, Avasilcai S and Alexa L 2017 Co-creation in fashion industry: The case of AWAYTOMARS, *Fas. of Manag. and Techn. Eng.* XXVI(XVI) 3 22-25
- [17] Galateanu (Avram) E and Avasilcai S 2017 Emerging creative ecosystems: platform development process *Fas. of Manag. and Techn. Eng.* XXVI(XVI) 3 5-10
- [18] Propellerhead 2018 <https://www.propellerheads.se>
- [19] Parmentier G and Mangemantin V 2014 Orchestrating innovation with user communities in the creative industries *Technological Forecasting and Social Change* 83 (1) 40-53
- [20] Avasilcai S and Bujor A 2018 Open innovation in creative industries. Part II: The case of Threadless *IOP Conf. Ser.: Mater. Sci. Eng.* 400 062002