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Co-creating Value in New Product Development: A Case Study on Chotukool (a Portable Refrigeration System by Godrej and Boyce)

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Abstract:

Internet and especially Web 2.0 technology has brought in a paradigm shift in the marketers and customers' interaction. Traditionally marketing meant "talking to" customers but advent of Social media heralded the concept of "talking with" customers" with the discussions spreading far and wide through the social networks. Unlimited amount of information and the ability to communicate with other customers has resulted in a sense of empowerment in the customers' attitude and mindset leading to an enhanced role in exchanges with the company (Ernst et al, 2010). As C.K. Prahlad (2004) noted "the meaning of value and the process of value creation are rapidly shifting from a product and firm centric view to personalized consumer experiences. Informed, networked, empowered and active consumers are increasingly co-creating value with the firms". Due to rising level of global competition combined with an era of social media where no company can ever feel safe or can afford to remain complacent, companies are faced with increasingly challenging questions, the most important being "where to find future growth" and "how to get or stay connected with the customers". One of the concept which has overwhelmingly appeared as an answer to the above concerns is "Co-creation". The concept of Co-creation has emerged as a real social media revolution. This paper is a modest attempt to understand the concept of co-creation, the types of co-creation and the benefits of the process to both the customers and the firms with various examples from international and Indian context. A case study on Godrej Chotukool has also been included to further highlight the process of co-creation adding value to its multiple stakeholders.

Keywords: Co-creation, creation of value, customer engagement, innovation

1. Introduction

There has been a gradual shift from "firm centric" to customer centric view regarding value creation happening inside the firm, where in both the firms and customers have distinct roles as producer and consumer, and the process of marketing involves targeting and managing the "right customer" (Prahlad C.K & Ramaswamy,v. 2004). In contrast the customer centric view encourages firms to collaborate and exchange knowledge with their customers by actively involving them in new product development (NPD) in order to create value (Sawhney,M. Verona,G. & Prandel,E, 2005). The concept of co-creation is borne out of the second view of customer centricity. Report on Co-creation by LSE enterprise defines co-creation as an active, creative and social process, based on collaboration between producers and users that is initiated by the firm to generate value for the customers. The basic assumption behind co-creation is that in the age of internet "the consumer is informed and has the best idea about what he wants and hence can be made a partner in the process of value creation by having a say in the product and service offering by the firm".

1.1. Methods of Co-Creation

Co-creation can be executed in various ways. Some of the methods of co-creation as listed in the report on Co-creation by LSE Enterprise are:

- Co-creation Workshops involve brainstorming sessions with specific users (also called Lead users) to generate ideas or enhance ideas. These workshops are useful in gaining more insight into the needs of the customers or to explore ideas that are relatively easy to implement in the short or medium term.
- Crowd sourcing involves defining a problem for a large audience and offer a reward for the winning idea. The interaction with the customer is minimal. It's a very effective way of co-creation if there is a concrete technical problem and the company is looking for a solution or the company wants to generate some free publicity around an upcoming product by promising that the new selected contribution will be launched in the market. At times it's also done to test ideas generated by employees.
- Open source co-creation is a process of actively involving a large number of volunteers to develop and maintain a product. This has been very successful with the development of software (Linux and Firefox are the most successful open sourced products.)

- Mass customization lets customers design their own product within a firm defined specific framework which gives the customers the freedom to choose their own material, color, shapes etc. for the product. Nike and Lego are some great examples. This type of co-creation lets the company charge a premium on its price and to a great extent converts the customers into brand ambassadors.
- User generated Content (a most successful consequence of web 2.0) lets customers create their own products that they share through a company created platform. YouTube, LinkedIn, the numerous blogs on the internet are some of the examples.

According to European commission's project key benefits of co-creation include direct innovation outcomes such as increased speed of introduction of product to market, increased product quality and a reduced risk of innovation effort not meeting customers' needs. These benefits result in new products and services, an increased competitive advantage and a large market share. The key drivers for co-creation are adoption of co-creation practices by competitors, customer empowerment through web based technologies and non-proximity requirement for creating a crowd.

1.2. The Benefits of Co-creation

The process of Co-creation works both ways. It benefits the customers by greater personalization and enhanced perceived value and for the companies, tapping into the knowledge of the customers, gives them a distinct competitive advantage. A leading community engagement technology and services company "Inside" in its report on Co-creation lists the benefits of Co-creation for the customers and the firms as:

1.2.1. Benefits for the Customers

- Social Benefits: expansion of social network, enhanced social esteem and perceived status, strengthening community affiliation, in some cases enhancing personal career
- Cognitive Benefits: information acquisition, learning technology and product/service knowledge
- Psychological Benefits: enhances intrinsic motivation, sense of self expression and pride, enjoyment in contributing, altruism
- Hedonic Benefits: enjoyable and relaxing time, entertainment and stimulation, enjoyment due to problem solving and idea generation
- Financial Benefits: direct (monetary prizes, profit sharing) and indirect (intellectual property, visibility from engaging and winning the co-creation competition)

1.2.2. Benefits from the Firm's View Point

- Collaboration Benefits: development of new concepts, increase in new ideas for innovation, enables cross fertilization and idea generation through shared knowledge and experience, enhanced potential for recognizing possible technology applications, involvement of greater body of knowledge enables rapid and numerous design iterations
- Innovation Benefits: increased speed in entering a market, lower cost resulting in higher profitability, perceived better quality leading to higher satisfaction, reduced risk
- Intangible Benefits: increased attitudinal loyalty, possibility of future co-creation, satisfaction with service recovery, greater satisfaction and commitment, positive word of mouth

1.3. Some well-known Examples of Co-creation are

1.3.1. NIKE

Nike involves its customers in dialogues both as individuals and in brand communities. Customers are engaged to generate ideas about product improvements and customization of Nike products. The company announces competition for a select group of customers to design Nike shoes. Co-design and customization of shoes can also be done on "Nike ID" website. The company has created a social networking site joga.com which supports user generated content (for example users could upload videos showing off their individual soccer skills.)

1.3.2. LEGO

Lego is one of the companies that has successfully harnessed consumers' independent creativity by facilitating co-creation. The company offers both personalization and co-creation opportunities to its target customers of 4-12 years old. Customers can engage in virtual design and building with the option of buying a manufactured version. Virtual models can be shared with other Lego community members. The company goes to the extent of selecting some of the consumers' creations for mass production while giving due design recognition to the creators.

- Examples of some Indian brands engaging customers for co-creation

1.3.3. Tanishq – Jewelry from the TATA group had launched a promotion drive under the name of "My Expression" which invited customers to submit ideas for "Mia"- the working women line from Tanishq. The winner gets to collaborate with the designers at Tanishq to design the latest collection. The top 10 finalists were also awarded cash prizes.

1.3.4. Nestlé's Maggi – "Me and Mera Maggi" campaign; probably the most popular co-creation activity so far in the Indian market. It encouraged users to share their Maggi experience, some of which eventually were converted to actual ads.

1.3.5 Green Sim initiative by IFFCO (Indian Farmers Fertilizers Cooperative Ltd), Airtel and ICRISAT (International crop research institute for the semi-arid tropics): A classic example of how co-creation can create value for the society by bringing together the expertise of different stake holders on a common platform. The venture consists of low cost mobile phones bundled with Airtel SIM cards that are distributed to farmers in many states through IFFCO centers. These "Green SIM cards" enable farmers to receive updates from IFFCO every day on issues such as mandi (Hindi for wholesale market) price, farming techniques, weather forecasts, dairy farming, animal husbandry, rural health initiatives and fertilizer availability.

2. Review of Literature

Consumer co-creation is increasingly playing a big role in new product development (NPD). Consumers are now involved in generating ideas that could help in fulfilling some unmet needs (Ernst, Hoyer, Krafft, and Soll 2010). Co-creation is now considered as an important manifestation of customer engagement behavior (Van Doorn et al 2010).

O'Hern and Rindfleisch, 2009 posit that even in big firms with millions of customers only a few are willing to be fully engaged or have the required skills to get involved with the product development and launch process. Various researchers have classified the consumers willing to participate in the co-creation activities as Innovators, lead users, emergent consumers and market mavens (Hoyer et al, 2010). Innovators are the earliest adopters to new products (Moore 1991). Lead users are the ones that recognize their unmet latent needs enabling them to contribute to solution (von Hippel 1986). Emergent consumers have the capability to apply intuition and judgement to improve upon the product concepts which others could benefit from (Hoffman, Kopalle and Novak 2010). Market mavens are the well informed consumers who are aware of the different types of products, places to shop and the other aspects of the market which makes them the initiator and the responder of information requests of other consumers (Feick and Price 1987).

Fuller 2008 posits that financial, social, technical and psychological factors motivate consumers to get involved in co-creation activities. Financial reward could be direct as in monetary prizes or profit sharing or indirectly through the intellectual property (Hoyer et al 2010) but there are people who freely reveal and share their ideas without any financial benefit in mind (Hippel and Krogh 2006). Social benefits of co creation comprises of status, social esteem, enhanced recognition and strong ties with others (Nambisan and Baron 2009). A desire to gain technology knowledge could also motivate some consumers (Nambisan and Baron 2009) and psychological benefits could motivate some others (Etgar 2008). Psychological benefits would mean a perceived enhancement of intrinsic motivation and sense of self expression and pride.

Co-creation is increasingly being used as a shield against product failures considering that not all products succeed in meeting the customers' needs. One of the ways to deal with that challenge is to involve and interact with the customers during the innovation process of new product development (Orcik et al 2013). Involving users as co-creators in innovation produces more creative ideas which are implemented easily and valued more by customers (Kristensson et al 2004). Russo and Mele (2012) define innovation as a co-creation process in which actors of social and technological networks integrate their resources to create mutual value and also developed the five "Co-s" model with the five stages of co-creation namely co-ideation, co-evaluation, co-design, co-test and co-launch. This is based on conceptualization of product innovation as a five-stage New Product Development (NPD) process – ideation, concept development, product design, product testing, and product introduction (Ulrich and Eppinger, 2003). Orcik et al 2013 posit that there are different levels of value co-creation during the product life cycle and each stage brings in different opportunities and challenges. A concept that has emerged from this combination of Co creation and innovation is "Social Innovation". The European Commission on their website mentions that social innovation is "about new ideas that work to address unmet needs. We simply describe it as innovations that are both social in their ends and their means" (European commission, 2013).

2.1. Types of Co-Creation for New Product Development (NPD)

Reindfleisch et al, (2008) did some pioneering research on co-creation that caters specifically to new product development (NPD). According to them there are basically two key steps in the process of co-creation. First step requires the firm to convince the customers to contribute their ideas. The second step then involves proper scrutiny of the ideas to separate the useful from bad. This is easier said than done. Many co-creation activities fail since either they don't get enough contribution or the contributions are not useful enough. Rejection of ideas could be a difficult task since the firm risks alienating its most engaged customers. Therefore, in order to be successful the firms have to first convince the customers to contribute and secondly develop a way of rejecting ideas without alienating the customers. Based on these two steps Reindfleisch identified 4 types of Co-creation by designing two-by-two matrix wherein the X axis has the "contribution" step and Y axis has the "Selection" step.

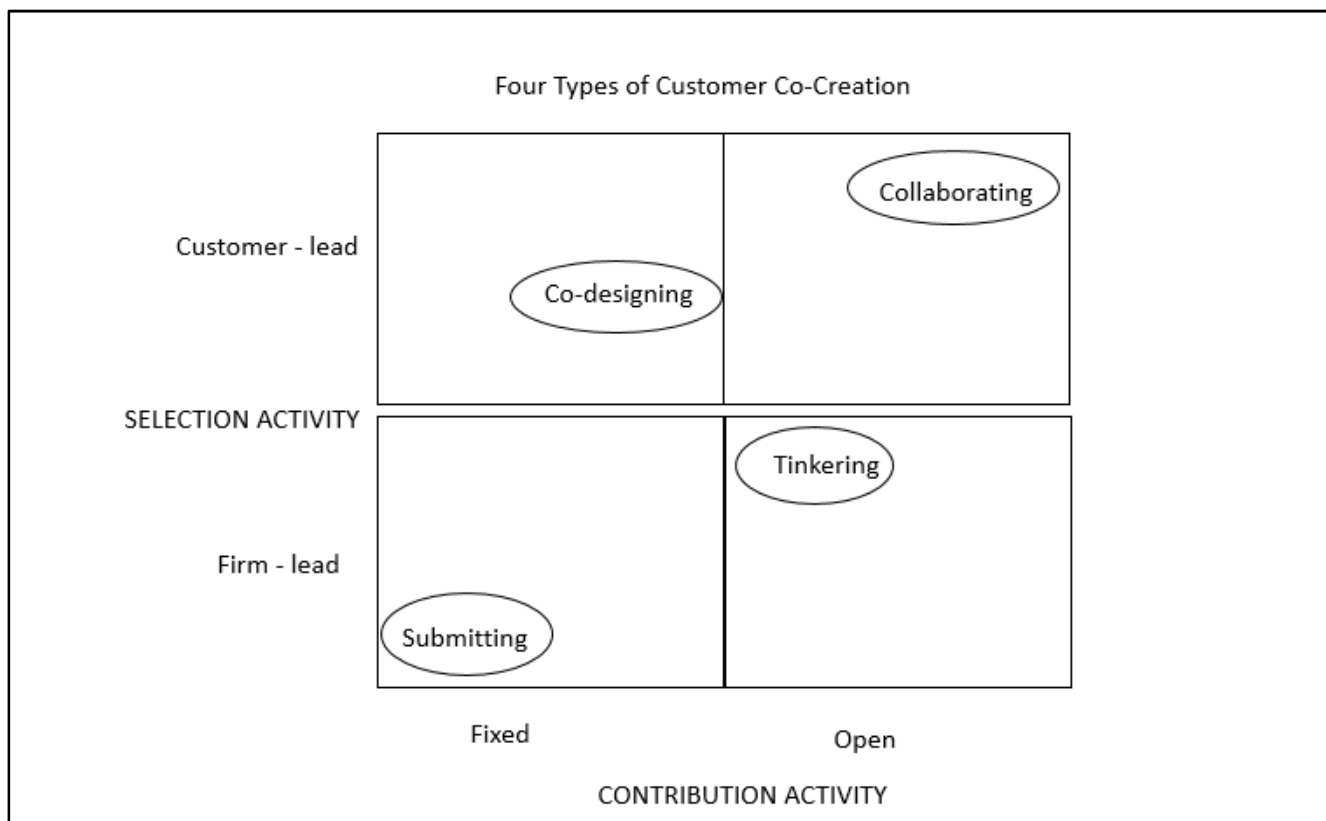


Figure 1

As the above diagram shows, the contribution activity is further classified into “Fixed” and “Open” and the selection activity into “Firm- lead” and “customer-led”. On each of these axis there is both high and low degree of customer control over each process. Following are the four boxes of the two-by-two matrix.

- Fixed: customer has very little control over selection process with the firm fixing the type of contribution it wants.
- Open: firm has lesser control over the process and wider range of contributions from the customers
- Firm led Selection: It is largely the firm that does the selection activity. The firm picks the winning submissions.
- Customer led selection: The firm entrusts the customers to select the winning submissions.

This two-by-two matrix provides four different types of customer co-creation

- Sharing: The most constrained type of co-creation with both fixed contribution and selection. The firm exercises maximum control over both contribution and selection.
- Tinkering: The contribution is more open but the selection process is more firm led. The users are free to make their contribution but it’s the firm which selects which one is worth publishing and distributing.
- Co- designing: The contributions are constrained since it has to meet the firm’s prescribed framework. But the user community votes on the winning design.
- Collaborating: Both the contribution and selection processes are open and determined by the users. The customers have a lot of control over both the processes.

3. Methodology

This research paper based on a mix of secondary data and a small case study has also been incorporated to demonstrate how companies are now effectively using the concept of co-creation to develop new product by engaging with various stakeholders especially the customers, with the ultimate aim being not only earning revenue but adding value to the society at large. Chotukool, the portable refrigeration unit was selected as the case study due to the extensive use of Co-creation at every stage of the product life-cycle, as well as its unique positioning as a value for money product in the rural market and a lifestyle product in the urban market. Published interviews of the senior managers and the product website have been used to collect information about the product and the co-creation strategies.

4. Discussion

Prahlad and Ramaswamy (2004) predicted a paradigm shift transforming the value creation process and the role of producers and consumers with it. But over a period of few years the concept has gradually evolved into as Ramaswamy states in his interview with Brian Levy states, “an ethical framework with the potential to unleash the power if democratic and humanizing principles to improve wealth, welfare and well-being in a fairer and more transparent way throughout society”. In order to achieve this the basic principle

that the co-creative enterprises should follow is have their entire organization focus on the engagement with individuals or the various stakeholders. The basic premise behind this effort being by sharing experiences, all the individuals involved, acquire a greater understanding of the knowledge and expectations others have, enabling them to devise a new and better experience for both sides. The case study that follows seems to fit the definition of a co-creative enterprise perfectly. The fact that this product was co-created with inputs from the villagers also gives credence to concept of co-creation having the power to fulfill the unmet needs and bring about changes adding value to the bottom of the pyramid.

4.1. Godrej Chotukool: A Cooling System for Rural India

It's a classic case of co-creation, a disruptive innovation at the bottom of pyramid.

It all started with the disruptive idea of an affordable refrigeration system for the rural, low income population. One of the primary requirement of co-creation is that the employees are in sync with the other stakeholders and should have the understanding of the value addition process. The company's team that was involved in the process had representatives from different background. The team included a manager with extensive experience in designing financial products for rural market, a student from National Institute of design, a management graduate in agriculture, a direct marketing expert and so on. The company team spent time in the villages observing their lifestyle and interacting with the consumers directly in formal co-creation events to understand their requirements from a cooling system which is not as big or expensive as a normal refrigerator. After the many interactive events, the team arrived at the following as unmet needs that the people would like to be addressed

4.2. The Needs

- A cooling system that is small because villagers are not known to stock up on vegetables/ fruits etc. Since purchases are done on a daily basis, a storage system for a couple of days could be useful.
- Energy efficiency - considering that the target audience is the low income group, a person wouldn't want to spend on high electricity bills.
- The cooling should be maintained for a few hours since in rural areas power outages are common.
- Should provide value for money- nothing too expensive

4.3. The Solution/ the Product

The outcome of the co-creation exercise was Godrej Chotukool ("little cool" in Hindi), co-designed by villagers, especially for rural population. It has very few components and hence it is energy efficient and sustainable. It runs without a compressor on an intelligent solid state electronic chip. It consumes only 55w power and can work on inverter or battery. Its high-end insulation lets it maintain a temperature 20 degrees below the ambient temperature. This temperature is maintained for 2-3 hours even during power cuts. It doesn't freeze water which again caters to the villagers' requirement. They don't need frozen water/ ice cubes; all they need is slightly cold water. It easily preserves vegetables and food for a couple of days.

4.4. Opportunities for Co-creation

As Mr. G. Sunderraman, Executive Vice President (Corporate Development), Godrej & Boyce says Co-creation is a continuous process which should be integrated throughout the product development life cycle. In the case of Chotukool villagers were involved in the ideation stage. Their inputs and requirements formed the backbone of the product concept. The initial prototype that was developed was shared with the villagers and based on that feedback was collected not just about the product but its value proposition, marketing plan and so on. Interaction with the villagers happened over a sustained period of time at every stage of product development.

4.5. Redefining the Distribution Network

The company didn't limit the co-creation exercise to just designing and launching the product but have also involved them in taking ownership in selling the product. As Mr. Sunderraman states that just having a new product idea is not enough. The prospective consumers should be willing to try it as well. A novel product idea most of the times also needs a novel way of reaching out to people. To achieve the company needed to redefine its distribution network and to that end, a partnership with India Post which has a wide presence in rural parts of India, was worked out, in addition to the direct sales. They have also partnered with the rural self-help groups, NGOs and micro finance institutions to boost sales. Local village girls are also involved as sales persons to educate people about the benefits of the product.

4.6. Moving Forward

Brisk year on year sales and many awards including the Edison award for innovation later, Godrej had repositioned Chotukool as India's first mobile food and beverage cooler for the urban market. The customers are given the option of customizing it by choosing among multiple designs and colour scheme options to suit their personal style. Chotukool has its own brand community pages on Facebook and Twitter where customers are encouraged to share their product usage stories and pictures. There is a clear shift in strategy in targeting the urban customers "keeping them engaged through Social media" seems to be the new mantra.

4.6.1. Limitations of Research

There is an upswing of research linking Co-creation with consumer empowerment. But this paper hasn't touched upon that topic at all. The fact that this research is purely based on secondary data further limits its findings.

4.6.2. Scope for Further Research

As specified in the limitations, further research linking co-creation to empowerment could be worked upon. An empirical research to study perceived empowerment of the customers after the co-creation activity could add another dimension to the study.

5. Conclusions

The purpose of this paper was to highlight how the concept of co-creation can be used as a method for collaborative innovation with the customers. Technology allows firms to involve customers in ongoing dialogue allowing the firms to access knowledge from customers and communities. The case of Godrej Chotukool is unique since the initial concept and subsequent launch was done in a rural setup where access to technology is a challenge. Under those circumstance face to face dialogue and workshops work out to be the best methods of collecting information about the need and subsequent feedback on the product. Another interesting aspect of the case is how a product designed for purely rural consumption can also be scaled up and repositioned for the urban market with extensive use of internet based technology.

The effectiveness of Co-creation depends on how much value is created for both firms and customers. It's the onus of the companies to create opportunities as well as new structural relationships to leverage the knowledge and understanding of the stakeholders involved. It does involve a substantial amount of effort but it has the potential to pay off in the long run not just in terms of increased revenue but also a new source of competitive advantage leading to customer loyalty. Co-creation leading to social innovation is increasingly gaining popularity especially the large firms thinking in terms of building real sustainable business which also creates social value. But as Simona Rocchi, Senior Director, Design for Sustainability Studies – Advanced & Emerging Markets, Philips Design, says Co-creating social value is not just about a single product, it's the whole proposition. It involves co-designing partnerships and networks for distribution, company's willingness to partner and work with grass roots level organizations, NGOs, individuals, and other stakeholders to make the proposition a win-win situation for all.

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