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“The effect of the industry on consumers' motivations to co-create: an exploratory analysis”

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Summary

In general, this research is focused on the comparison of motives and consumer engagement in co-creation of value between low and high involvement products in first stage of new product development. Hence, in the very beginning of this paper, there are the definition, phases and process of co-creation of value. Then, the classification of different consumer segments regarding to their characteristic and behavior toward co-creation. Then, investigate the causes of each segment for collaborating in such activity. Also, the definition and specification of high & low involvement products. Lastly, answer to these questions that what are the impact of product essence (low & high involvement) on motivation of different segments toward co-creation process at first stage of new product development. To be more precise, compare the influences of high and low involvement product on main four consumer segments such as **Lead Users**, **Market Mavens**, **Innovators** and **Emergent Consumers** (Hoyer et al. 2010) and their incentives such as **Need**, **Reward**, **Intrinsic** and **Curiosity** (Füller 2010). Hence, the products have been chosen based on the concept of high & low involvement. For instance, cookies and backpack respectively. Backpack (high involvement) and cookies (low involvement).

Consequently, the conceptualized model has been proposed to demonstrate the relation of motives and consumer segments with two type of products. The methodology which has been adopted for this research is based on consumer's opinion through the online questionnaire and in-depth interview. In fact, the data which is extracted from this method used to validate the proposed model.

In conclusion, the results illustrate that the essence of product is an important factor which have direct impact on behavior of consumer toward co-creation process to engage or not. And also, it has a direct relation with characteristic of each segment and their motives who have willing to co-create. For example, on one hand high involvement is process with left side of brain which is more cognitive and the interesting point is that the consumer with the same behavior such as lead user and market maven are more attracted to engage in this category base on more verbal and cognitive motives such as need and reward. On the other hand the low involvement process with right side of brain and the same type of motives which are more noncognitive such as intrinsic and curiosity which actuate the certain kind of consumers who are more process with right side of brain like innovators and emergent consumer to engage.

Key words: Online engagement, Co-creation, Consumer segments, Consumer motives, Collaboration, Lead user, Innovator, Market maven, Emergent consumer.

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1. Introduction

In this paper, I would like to address the three main sections of my research. Firstly, I tried to explore the topic and the main idea of my research within the related studies and literature reviews, which has been done so far. Secondly, I introduced the methodology that I have been used to create the conceptualized model. Finally, in the last section I brought out the conclusion of my research.

1.1. General viewpoint about co-creation

During the last decade, companies tried to be more interactive toward their customers by keeping in touch with their customers through different channels such as social media, web2.0 and also traditional way like telephone line. Further, the next step for the firms is to try to get attraction and encourage the customers to be more interactive in different phases of new product development. To illustrate, the novelty of virtual co-creation compared to conventional customer integration is that consumers are not only asked about their opinions, desires, and needs, but also are asked to contribute their creativity and problem-solving skills. Consumers take on the role of co-creators (Füller 2010). In this respect, it is clear that it will be a good opportunity for both customers and producers to take advantage within co-creation phases. On the one hand, firm can gain from building relationship (engagement and satisfaction) with customers; reduced customer costs and increases efficiency and effectiveness. On the other hand, customer can use advantage of co-creation from four different aspects such as financial, social, technical and psychological (Hoyer et al. 2010). In this regard, many researches have been done to divide customers who are engaged in co-creation process to different clusters in terms of customer's attitude towards co-creation. According to (Hoyer et al. 2010), there are four different clusters of customers such as **Innovators**, **Lead users**, **Emergent consumers** and **Market mavens**. Although these segments have different attitudes and characteristics towards co-creation in new product development therefore, firms tried to monitor the action of each segment to have a better understanding of their customers in terms of value creation. Although, co-creation of value is not only just one way road for firms to gain more profit but also for customers is the opportunity to satisfy their need, intrinsic, curiosity and being rewarded. As a result, knowing about consumer segments is a vital for firms to get advantage of developing new product through customers.

2. State of the art analysis

2.1. Co-creation definition

Hence, co-creation can be defined by the term customer co-creation denotes a product development approach where customers are actively involved and take part in the design of a new offering (Wikstroem 1996; Piller 2004; Prahalad/Ramaswamy 2004). More specifically, customer co-creation has been defined as an active, creative, and social process, based on collaboration between producers (retailers) and customers (users) (Roser et al. 2009; for extended reviews of the active role of customers in the innovation process refer to von Hippel 2005; O'Hern/Rindfleisch 2009; Piller/Ihl 2010). The idea of co-creation is to actively involve customers in the design or development of future offerings (Ramirez 1999), often with the help of tools that are provided by the firm.

Co-creation activities are interaction between company and customer, which is facilitated by the company. The manufacturer is either empowering its customers to design a solution by themselves or is implementing methodologies to efficiently transfer an innovative solution from the customer into the company domain (Seybold 2006; Tapscott/Williams 2006; Reichwald/Piller 2009). Examples for methods include ideation contests (Piller/Walcher 2006; Terwiesch/Xu 2008), lead user workshops (von Hippel 1988, 2005), consumer opinion platform (Hennig-Thurau et al. 2004), toolkits for user innovation (Thomke/von Hippel 2002; von Hippel/Katz 2002), co-design toolkits (Franke/Piller 2004), or communities for customer co-creation (Franke/Shah 2003; Füller et al. 2008). The main objective is to enlarge the base of information about needs, applications, and solution technologies that resides in the domain of the customers and users of a product or service. This information can be used to increase the "fit to market" of a new offering, hence decreasing the risk of product flops, or to enhance the innovativeness of an offering, hence increasing its potential to capture the monopolistic rents which are typical for a radical innovation (Reichwald/Piller 2009). (Piller et al. 2012)

To date, social networks, blogs, forums and mobile apps have been penetrated which they could prepare a virtual environment for engaging customers in virtual co-creation through mobile's app, company's sites and social networks like Facebook. Consequently, research on virtual co-creation has focused on the co-creation experience and the abilities of customers that qualify them for participation in new product development(Füller 2010).

2.2. (What &How) what customer co-create and how is the process of interaction

According to conceptual framework of consumer co-creation by (Hoyer et al. 2010). Consumer can interact in each stage of new product development such as Ideation, product development and commercialization/post-launch. In this framework, the authors tried to show the impact of co-creation on each stage of NPD process, motives and barriers to this process and the various outcomes in terms of firm and consumer.

2.2.1. What are consumers co-create

Customers who engage in virtual co-creation have certain expectations as to product, product category or Innovation process. For instance, it may be a product like mobile phones or product category such as cars or Innovative project depart from product or product categories. In case of first two categories, consumers have clear expectations depending on different type of consumer. As a result, we categorize them to three main groups such as Brand lovers, product categories and stage of innovation process.

For brand lovers, they engage in co-creation phases of specific brand because of the brand itself. Audi fans for example, may engage in co-creation projects offered by Audi, but not contribute to BMW or Mercedes(Füller 2010). So, in this case the brand is successful to position the brand image in the mind of consumer. In other words, consumers believe that a specific brand is more trustable and also compatible with individual's needs.

The second group who are interested in product category not a particular brand for example cars fans are involve in innovation project dealing with the development of cars but not sports equipment(Füller 2010).

Finally, the last group involved in innovations may engage in all kind of innovation projects, but not all co-creation tasks(Füller 2010). In this respect, firms will face with variety of consumer's expectations depend on different stage of co-creation. For instance, some goes for new ideas while others prefer evaluation and selection of product concept(Füller 2010).

2.2.2. Motivations and Barriers of Consumer Co-creation from firms perspective

Firms can vary in their degree of consumer co-creation for two broad sets of reasons.

Motives of consumer co-creation:

Firms can built a relationship with their customers through co-creation process. So, they try to motivate them to engage in co-creation activity. Although, there has been some obstacles that customer hesitate to engage in such activities if the costs of engaging are too high or the benefit of involving are too low. Thus, firm's stimulators are summarizing into two main categories as shown below;

Firstly, Increase the benefits of engaging in co-creation activities for consumers by creative approaches, which enhance the benefits or motivators. According to (Hoyer et al. 2010), Most consumers encourage with one or combination of these factors such as financial, social, Technological and psychological. So, adopting the approaches that consider these factors would be effective.

Secondly, firms can reduce the costs of co-creation such as time, effort and foregone opportunities for consumers. So, consumers are more eager to engage in co-creation processes. In this respect, firms could adapt two approaches for reducing the costs; one approach is to provide user toolkits, which ease the process of creating new ideas, products, and marketing materials for potential participants (von Hippel and Katz 2002). Another, Another is to modularize the NPD process, so that consumers are assigned to or select into modules and can focus on the particular components of the NPD process for which they have the greatest expertise and passion, and are likely therefore to be more efficient at completing the co-creation task(Hoyer et al. 2010).

Barriers of consumer co-creation

There are some reasons, which repel the firms from engaging the co-creation processes. Here I would be focus on main four causes.

Firstly, in the most knowledge-based companies, they are less likely to engage in co-creation processes because of secrecy of their new product development activities. So, these firms try to keep their knowledge secret as their main property from the competitors. Concerns about secrecy are likely to be highest in the product development and launch stages of the co-creation process.(Hoyer et al. 2010)

Secondly, the ownership of intellectual property be always one of the ambiguous issues in co-creation processes which cause the feel of unfairness within consumers who are engage in co-creation process. In other words, some of consumers are easily disposal their idea to the firms without any expectancy while others expect full rewards for their contributions. According to (Hoyer et al. 2010), Firms that emphasize retaining ownership of intellectual property rights for themselves are therefore less likely to engage in a high degree of co-creation.

Thirdly, the large volume of inputs from consumers could be another difficulty for the firms in co-creation phase. Evaluating the thousands of ideas is not an easy task for firms. In fact, some companies try to solve this problem through their consumers who are engaging in co-creation to evaluate the incoming ideas and rank them. For instance, Treadles use their consumers, as a judge for assessing the designs, which are received from consumers and then rank them and the highest ranks would choose for production.

Finally, last but not the least is the feasibility of new ideas from a production. These trade- offs may be a major reason for underutilization of co-creation potential by some companies in early and post-launch stages (Gruner and Homburg 2000); rather, these firms interact with consumers mainly at the commercialization stage (for prototype testing and market launch).(Hoyer et al. 2010)

2.2.3. Customer value-creating processes

According to (Payne et al. 2007), the graph below shows the conceptual framework for co-creation. They argue that the process of co-creating value have two viewpoint. First, a Good dominant, which sees the product as the organizer of chances for firm while Service-dominant viewpoint, is experience of engaging in co-creation processes. They proposal is process-based value co-creation framework with three main components such as **customer value-creating process, supplier value-creating processes and Encounter processes.**

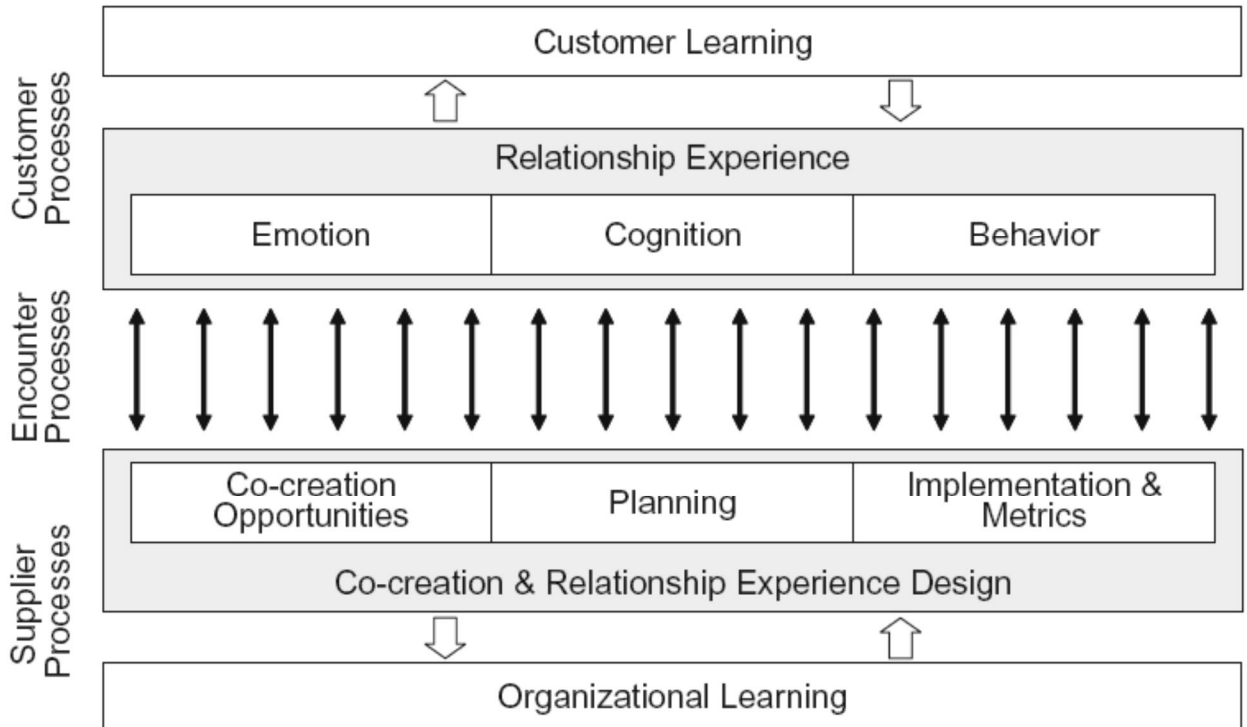


Figure 1. A conceptual frame-work for value co-creation(Payne et al. 2007)

Customer value-creating processes

Accordingly, the meaning of value creating by customer has been changed over time. Value creating process is no more just the traditional engineering sense but is an interactive and non-linear process. (Payne et al. 2007) argue "An important concept is that the value proposition exists in order to facilitate the co-creation of experiences. Creating customer experiences is less about products and more about relationships which the customer has vis-à-vis the total offering. It involves focusing on *value-in-use* instead of mere product features".

- The relationship experience
- Customer learning

Supplier value-creating processes

- Co-creation opportunities
- Planning, implementation and metrics
- Organizational learning

The encounter process

- Encounter types
- Co-creating value by encounter design

2.3. (Why) Individuals co-create

Consumers are willing to co-create because, they expect rewarding in terms of tangible such as goods or monetary rewarding and intangible like social services and friendship. Further, not only the outcomes, but also the interaction experience itself may offer a benefit.(Füller 2010). According to (Füller 2008), they argue that consumers will engage to co-creation process for four main reasons such as **Financial, Social, Technical** and **Psychological**.

1. **Financial:** consumers who are related to this group are encouraged to take a part in co-creation activities with rewards. Particularly, rewards could be direct and indirect. In some cases they can get benefit directly from firms through a monetary prizes or profit sharing. While, they could be rewarded indirectly through the intellectual property or visibility which they earn from participating in co-creation contests.
2. **Social:** consumers who are associated to this category are concern about their social status. (Nambisan and Baron 2009) argues that, Social benefits of co-creation comprise increased status, social esteem, good citizenship, and strengthening of ties with relevant others. And also,(Füller 2010) argues that expected incentives vary between non-monetary incentives such as feedback, a warm thank-you, or an official naming as co-developer. To illustrate, Amazon Company have "Top 100 reviewer" which let them to be distinguished from others and induce the feel of superiority among them.
3. **Technical:** consumers from this category are curious about new technologies and knowledge, which are used in developing new products or services. They are actively engage in forums. For instance, many brands are engaging their consumers in designing and developing process of their new products through sharing the knowledge and ideas.
4. **Psychological:** the last but not the least, is the psychological reasons is one of the reasons which consumers are willing to co-create. Creative pursuits of co-creation are likely to enhance intrinsic motivation and sense of self-expression and pride (Csikszentmihalyi 1996; Etgar 2008). Acting creatively enhances positive affect (Burroughs and Mick 2004) and enjoyment of contributing (Evans and Wolf 2005; Nambisan and Baron 2009). Indeed, some consumers engage the co-creation process for social benefits purposes such as medical product development efforts or charitable service development efforts. By the way, others may be motivated due to high involvement or dissatisfaction with the product (Ernst, Hoyer, Krafft, and Soll 2010).

All in all, Anderson et al. suggest that an interaction in co-creation processes can be categorized in three sets; the content – what the individual wants to exchange; the process – how the individual wants to interact; and the people – with whom the individual wants to interact. (Füller 2010)

In general, experiential-oriented behaviors are what intrinsically motivated consumers opt for, whereas goal-orientation behaviors are the main drivers for the type of consumers who are motivated extrinsically. There are a set of characteristics for experiential-oriented behaviors such as enduring involvement, ritualized orientation, interest in the medium and the content, non-directed engagement, fun, affect, less intentional and selective orientation, time-filling and recreation activity, and hedonic benefits; while goal-oriented behaviors are characterized by engagement, directed, cognition, interest in content, work, and utilitarian benefits. Goal-oriented consumers crave for the utility, which is gained through their interactions, and they are more interested in the content and topic under discussion, but experiential-driven consumers are more concerned with the experience itself and they care more about the design and vividness of the context. Based on these differences, we propose following influence of motives on consumers' expectations towards virtual co-creation – the process, the content, the context, as well as the interaction partners (see Table 2).(Füller 2010)

Based on the personal characteristics of the consumers in accordance to the web-exploration and/or their innovation behavior, we would propose the following:

1: Virtual co-creation would be a viable option for the type of consumers, which have low web-exploring experiences, and their innovation-affiliated characteristics are not high. These customers desperately need the solution but they do not own the necessary skills to materialize their ideas. Creative skill to come up with a solution to their problems and an inherent enthusiasm to try innovations on the web are what these customers lack mostly. Thus, virtual co-creation would be a substitute to provide them with the solution they are seeking in order to tackle their problems.

2: consumers with high web exploration characteristics and low innovation related properties opt for virtual co-creation since their curiosity and keenness to surf the web leads them to do so. They do not necessarily have a past experience in new product development activities and the co-creation concept is only a coincidence to them, through which they enjoy the experience.

3: those consumers, which enjoy from high levels of web exploration characteristics and innovation related properties could engage in co-creation merely due to their intrinsic interests in co-creation activities. Developing new products and engaging in creative activities in both offline and online environments are what distinguish them from other consumers.

4: the final proposition includes a type of consumers who are low on their web exploratory characteristics and high on innovation related properties. The outcomes resulting from their engagement e.g. monetary compensations would be the main reason to take part in co-creation. Innovation would be interesting to them but they may not show great enthusiasm to the online world. They own the necessary skills to engage in new product development activities but their interest towards engagement in the virtual co-creation is very little. Tangible aspects of their engagement such as recognition and monetary aspects are more important to them. Their goal oriented approach makes the virtual co-creation as an activity through which they enjoy themselves and not just a pure leisure activity for the sake of entertainment. Figure 2 describes the aforementioned propositions considering the characteristics of consumers and their motives on their engagements.

Impact of personal characteristics on Consumer's motives(Füller 2010)

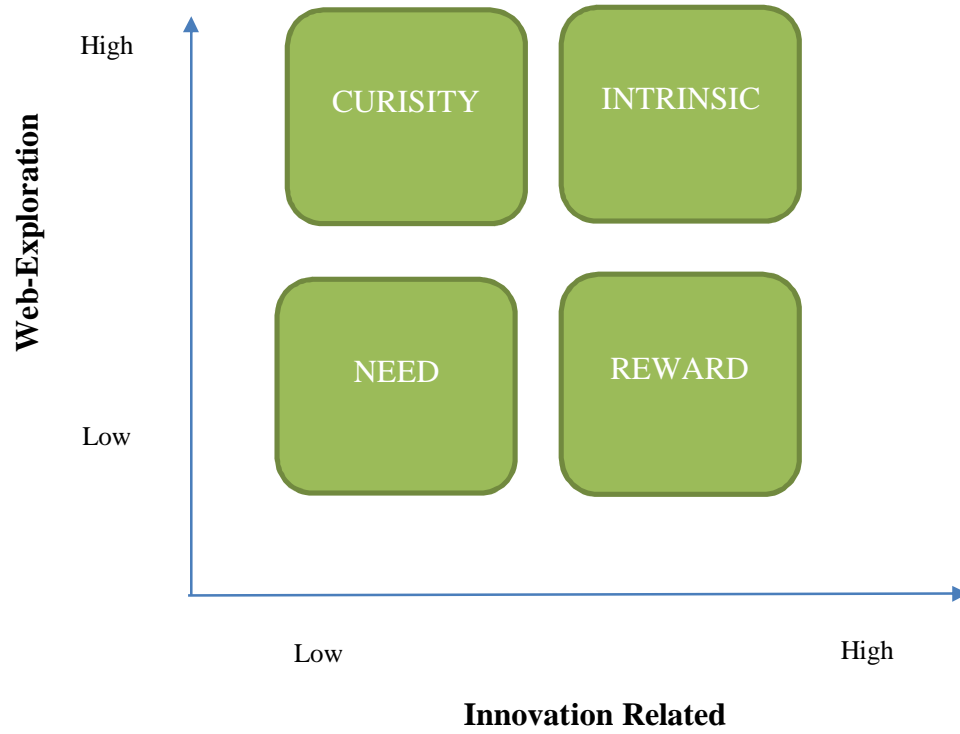


Figure 2. Impact of personal characteristics on Consumer's motives(Füller 2010)

2.3.1. Risks of offering attractive incentives:

No one can deny the importance of motivation. It is clear that consumers need motivations in order to take part in co-creation while offering absorbing motivations may have some risks (Füller 2010) reasons some of these risks like:

Firstly, Consumers are employ in virtual co-creation just because of motives while they are not interested in that topic. As a result, it may have an influence in their contributions. As Kruglanski et al. argue the "minimax" strategy; "strive to do the least possible of the task for the most possible of the reward." can explain such behaviors.

Secondly, the problem of pecuniary motivations is that when consumers suddenly change their attitude toward co-creation as compensation activities. In this scenario they will hide their ideas with high probability because they think that they can gain benefit through selling them or they might feel misused by firms because the external motivations offered do not present a fair compensation for their contributions.

2.4. (Who) Clusters of consumers willing to co-create

In this section we try to focus on consumers regarding to their natural disposition, characteristic and behavior toward co-creation. In fact, researchers have identified segments of consumers who might be especially willing and able to participate in co-creation activities such as Innovators, Lead users, Emergent consumers and Market mavens(Hoyer et al. 2010).

The objective of this section is to explain the general characteristics of co-creator consumer and then explain in detail each of them. First start with a brief analysis of the characteristics of each group regarding to the co-creation process.

2.4.1. Innovators/Early Adaptors:

They are more likely to adopt a new product or service comparatively earlier than other groups of consumers (Clark and Goldsmith, 2005) and are more likely to disregard the risks associated with new products or services (Engel et al., 1995) and opposed to being interested in all product categories across the board (Rogers, 1995).

Consumers from this segment are mostly well educated, young and upwardly mobile and come from the higher socioeconomic status relative to others in the social system. Indeed, they usually can afford to take the risks and have the money too (Engel, Blackwell and Miniard, 1995).

2.4.2. Lead Users:

Regarding to Eric von Hippel (1986), Lead users are users whose present strong needs will become general in a marketplace months or years in the future. He argued two important factors for lead users: (1) They are at the leading edge of important market trends and; (2) they have a strong incentive to find solutions for the novel needs they encounter at the leading edge.

Since, lead users are familiar with conditions, which lie in the future for the most others, they can serve as a need-forecasting laboratory for marketing research. Moreover, since lead users often attempt to fill the need they experience, they can provide new product concept and design data as well.

Refer to these two factors, research from numerous scholars has repeatedly shown that Lead users often have to develop the new products and services they need for themselves - they become user-innovators. Products that lead users develop often become the basis for important commercial products when lead user needs become mainstream.

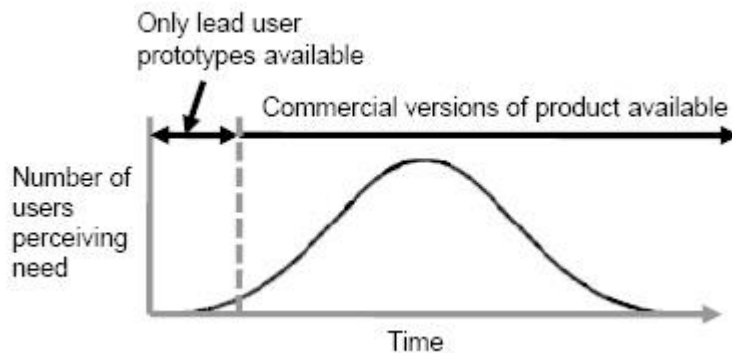


Figure 3. Lead User

The Lead Users can then be seen as a preview of what the customer will expect from the generic product in the future (Also confirmed by Fuller et al.2009). This is possible because, as widely shared, new needs are spreading slowly in the market and do not impact all clients simultaneously. This concept of diffusion of needs comes from the fact that innovation gradually spreads as the dispersion of information, ideas, products and services takes time.

It is also verified that the Lead Users are characterized by *skills*, means that their skills and ability to develop ideas for the products of tomorrow are greater than the average customer. Lead Users are able to develop the idea because they operate in contexts of how to use the product for the majority of customers, belong to future scenarios. There is a gap for these consumers between the experience of using the old product and the context of future product. State of tension and dissatisfaction that pushes the Lead Users to behave, can summarize in two theory; Creative Cognition and Cognitive Learning.

According to the theory of *cognition creativity* come to the knowledge of new needs is a prerequisite for the initialization of the creative process that leads to implement new solutions is different from those of today. Therefore, only customers who are familiar with new contexts of use can produce new product ideas.

Instead, according to the theory of cognitive learning needs of those who manifest starts a new cognitive process to develop solutions to their problems. There is a correlation between the desire and creating new needs and trying to learn how to balance them. This is because the limited capacity of human memory and the limited resources held for processing information in a complex environment leads users to focus their attention to specific fields, which are connected to their own knowledge base. Consequently, these users are motivated to acquire new knowledge because at

the moment they meet needs that are not met. The Lead Users (Lüthje and Herstatt 2004) have greater ease to store this knowledge and innovation-related information.

Also according to the definition of Von Hippel: the Lead Users expect a large personal return from the proposed solution to businesses in order to satisfy their own needs and therefore participate in the activities and are highly motivated co-creative (also confirmed by Fuller et al.2009). It means that customers expect to get the highest benefit from the new product, so that those who will invest the majority of the resources need to understand the future configuration. Lüthje and Herstatt (2004) have reported the discussion about the motivational aspects in the relevant section in their article.

In summary, according to Von Hippel, Lead Users have these following two features; Anticipate future needs (Capability) and getting important benefits in the realization of the solution to these benefits (**Motivation**). It should be noted that the Lead Users have a crucial role in the Fast Moving Fields in the World, characterized by incremental innovations, customer type, i.e. the more passive, plays an appropriate role in the innovation process being required only its contribution in market survey and focus groups, as shown by the traditional marketing.

It should be recognized that although Von Hippel has defined Lead Users mainly for manufacturers and companies, this classification is certainly also valid for End Users. The discussion later in fact use quietly the term coined by Von Hippel for the End Users.

According to a study of Fuller's 2006 Lead Users assume the role of devotee and Insiders within a community. Insider and devotee have a great interest in this topic in the community, but while the former are concerned with social relationships, the second mode are much smaller. Have important, as a further confirmation to the above, technical quality and a strong knowledge of the functionality of the product.

According to Schereier and Prugl, the Lead-Users have a high internal locus of control, means that, they think that the result of what they are going to run depends mainly on them and not any external factors (Greer and Lei 2011).

The Lead Users can belong to the customers of competitors or can be outside the market. It is not said that these particular consumers are not belong to current customer of the company. Furthermore, when searching the Lead Users the company should not seek individuals who are innovative of all the attributes of the product in general, an individual may be a Lead User only in some aspects of the product.

Another problem associated with Lead Users is that these individuals maybe active in the process of NPD only when they meet their own needs. A Once you reach the goal are much less useful for the enterprise, which must be always bring forth new innovation processes, as these customers are not concerned, in most cases, to incremental innovations. It is noted then that the Lead-Users are driven primarily by extrinsic motivations

2.4.3. Emergent Consumers:

Emergent consumers can be defined as Individuals who are especially capable of applying intuition and judgment to improve product concepts that mainstream consumers will find appealing and useful (Hoffman, Kopalle, and Novak 2010). As an example, you can better understand their behavior toward co-creation from their comments as below;

People from this cluster is usually can easily develop the ideas to actual and practical product and also can imagine how would be develop the idea in future if the immediate need is not exist.

They also can visualized the need of average population in future and can propose the new product or service which can fulfill the future need of society.

2.4.4. Market Mavens:

Traditional approaches to interpersonal influence have focused on two types of influencers:

- The opinion leader: individuals who acted as information brokers intervening between mass media sources and the opinions and choices of the population. In this case, knowledge or expertise has been viewed as arising from involvement with a product or product class.
- Early purchaser or adapter: the experience arises from product usage or purchase experience.

These approaches are characterized by two fundamental assumptions:

- Understanding the important aspects of interpersonal information exchanges by studying opinion leader and early adapters.
- Understanding interpersonal information usage by examining interpersonal exchanges within product classes- implicitly assuming also that by aggregating the results across product classes we can obtain a picture of interpersonal influence.

Market Mavens are marketplace influencer whose influence is based not on knowledge or expertise in particular product categories but rather on more general knowledge and experience with markets.

Purchasing involvement: is a characteristic, which is individuals with greater purchasing involvement, tending to know where to shop for certain items, where to get a good price on products, and what outlet is having sales. Different between "market maven" and "opinion leader" is that influence drives from knowledge and expertise but differs in that the expertise is not **product specific**. The market maven's influence is based on more general market expertise.

Market mavens can be opinion leaders or early purchasers of particular product. Market mavens' general marketplace expertise should lead them to earlier awareness of new products (hence, an increase likelihood of early adaption) and may also lead them to acquire not only general market information but also in-depth information on selected products (hence, an increased likelihood of opinion leadership).

Market Maven concept is more general on knowledge of market.

P1: Market mavens will demonstrate earlier awareness of new products through

- Reported early awareness of new product across product categories
- Awareness of specific new brands within several product categories

P2: Market mavens will exhibit higher levels of information provision to other consumers across product categories.

P3: Market mavens will demonstrate higher levels of general market information seeking through

- Readership of consumer reports
- Use of diverse sources in acquiring market information

P4: market mavens will demonstrate higher levels of general market interest through

- Enjoyment of shopping
- Attention to advertising
- Use of coupons

Market maven has general information about different aspects of product such as changes in prices or availability of products, new stores, and so on rather than to other groups.

Early purchasers engage in active and passive diffusion of new product information. And also, they provide information about other marketing mix changes. Further, there is a little evidence that early purchasers provide new product information if they are aware of, but have not yet adopted, a new product. In addition, because early adoption tends to be product class specific, product types face marketers with targeting early purchasers separately.

The identification of an important but previously unknown influencer groups suggests a reexamination of our approach to information diffusion. Such a reexamination should center on

1. Developing better measures for discriminating influencers who are generalists from influencers who are specialists
2. Examining the motivations for information exchange that are not based on product involvement or experience
3. Developing better ways to examine the relationship between types of influencers

According to the definition of Feick and Price, 1987, in an article of Stokburger-Sauer and Hoyer 2009: " Market Mavens are individuals who has information about any kinds of products, places to shop, and other facets of markets, and initiate discussion with consumers and respond to requests from consumers for market information ". So, consumers who have large pool information regarding the types of products and the places in which the transaction occurs. Alongside these qualities there is also a strong propensity to respond in discussions, with any concerns, and requests for information made by other customers.

The market mavens are different compared to other types of consumers, since they focus on the needs of others (not only their own) and have a lot to say about it.

An important feature of these individuals is their ability to influence the purchasing decisions of other consumers through interpersonal communication of general information on the market. In addition the market mavens have the following distinctive features: the continuing search for

information related to consumption, participation interest in all that concerns of the market, the use of coupons and his pleasure in sharing their experiences with others.

According to a study by Walsh in 2004, the Market Mavens are motivated by a sense of tried obligation with respect to share the information, a desire help others and a feeling of pleasure associated about other products.

Regarding the product involvement, the opinion leaders have a degree involvement with respect to the particular category of product much higher compared to Market Mavens. Instead, the need for variety (in the sense of product) is much more present in the Market Mavens in that opinion leaders: this is guessed from the fact that the former have a more pronounced need for updates and this can be best done through an extensive exploration of products and brands. As a further consequence of all this, the Market Mavens have a low level of fidelity to the brand. In contrast to the Lead-Users, Market Mavens are the reasons much more intrinsic, for example, altruism.

Table 1. Consumer segment characteristic

	Definition	Characteristics
Innovators/ Early Adaptors (Hoyer et al. 2010)	In this context are those consumers who are the earliest to adopt new products (Moore 1991) early adopters are more likely to adopt a new product or service comparatively earlier than other groups of consumers (Clark and Goldsmith, 2005) and are more likely to disregard the risks associated with new products or services (Engel et al., 1995). Numerous studies have shown that early adopters are heavy users of commercial, professional and interpersonal information sources (Goldsmith, Flynn, and Goldsmith, 2003; Fisher and Price, 1992; Mahajan and Muller, 1990).	<ul style="list-style-type: none"> - as product or category specific as opposed to being interested in all product categories across the board (Rogers, 1995). - Well-educated.(Brancaleone 2007) - Young. - High socioeconomic status. - Can afford to take the risks and have the money too (Engel, Bnlackwell and Miniard, 1995). - High information seekers (Clark and Goldsmith, 2005)
Lead users/Opini on Leaders (Hoyer et al. 2010)	<p>Individuals who face needs that will eventually be general in the marketplace, but who face these needs before others in the marketplace, and are therefore well positioned to solve these needs themselves (von Hippel 1986).</p> <ul style="list-style-type: none"> - Other people consider me as öleading edgeö with respect to home delivery of goods. - I have pioneered some new and different ways for home delivery of goods. - I have suggested to stores and delivery services some new and different ways to deliver goods at home. - I have participated in offers by stores to deliver goods to my home in new and different ways. - I have come up with some new and different solutions to meet my needs for the home delivery of goods. 	<ul style="list-style-type: none"> - Facilitators for spreading information specific to a product or service (Chan and Misra, 1990; Clark and Goldsmith, 2005; Feick and Price 1987;Goldsmith et al, 2003). - gregariousness (extraversion); - outer-directed personality traits (Marshall and Gitosudarmo, 1995); - Their degree of innovativeness, positive attitudes to change and demographic characteristics such as youth, higher education and income (Marshall and Gitosudarmo, 1995). - High information seekers (Clark and Goldsmith, 2005) - Use large amounts of commercial, professional and interpersonal sources of information regarding a specific product or category of interest. Opinion leaders regularly share their knowledge with other people. - The greater one's consumer knowledge of the underlying field becomes, the stronger his/her LeadUserness will be. - The higher one's level of use experience in the underlying field becomes, the stronger his/her LeadUserness will be. - The more internal a consumer's locus of control (LOC) is, the stronger his/her LeadUserness will be. - 4The more innovative a consumer's personality is, the stronger his/her LeadUserness will be.
Emergent consumers (Hoyer et al. 2010)	Individuals who are especially capable of applying intuition and judgment to improve product concepts that mainstream consumers will find appealing and useful (Hoffman, Kopalle, and Novak 2010)	<p>When I hear about a new product or service idea, it is easy to imagine how it might be developed into an actual product or service.</p> <p>Even if I don't see an immediate use for a new product or service, I like to think about how I might use it in the future.</p> <p>When I see a new product or service idea, it is easy to visualize how it might fit into the life of an average person in the future.</p>

		<p>If someone gave me a new product or service idea with no clear application, I could ðfill in the blanksö so someone else would know what to do with it.</p> <p>Even if I don't see an immediate use for a new product or service, I like to imagine how people in general might use it in the future.</p> <p>I like to experiment with new ideas for how to use products and services.</p> <p>I like to find patterns in complexity.</p> <p>I can picture how products and services of today could be improved to make them more appealing to the average person</p>
<p>Market mavens (Hoyer et al. 2010)</p>	<p>Individuals who have information about many kinds of products, places to shop, and other facets of the market, and have a high propensity to initiate discussions with and respond to information requests from other consumers (Feick and Price 1987).</p> <p>They found that market mavens were motivated to share their information with other consumers for a number of reasons, which include; an obligation to share information; a strong desire to help others; and an intrinsic pleasure in sharing information with others. Clarke and Goldsmith (2005) suggest that market mavens conform to social norms and can be susceptible to normative influences personality trait of high self-esteem and social respect or prestige/status.</p>	<ul style="list-style-type: none"> - Higher levels of general knowledge about the marketplace and product marketing mix (product, prices, distribution, promotions) characteristics. - They collect and retain information about a wider range of issues such as product utility, prices, sales, availability, store personnel characteristics and other features that may be relevant to themselves and to other consumers. - They are more likely to read retail magazines, direct mail advertisements and discuss retail store image attributes more freely than non-mavens (Higie, Feick and Price, 1987) and to be heavy users of coupons, grocery lists and budgeting tactics (Price and Feick, 1988). - They are more likely to be female, marginally lower educated than non-mavens and more likely to come from certain sub cultural groups (Feick and Price, 1987). - They can be seen to be a source of general or non-specific marketplace information. - Watch more television and read more magazines (Walsh, Gwinner and Swanson, 2004) - Higher level of interest and influence on services and store types.(Price and Feick,1988) <p>The research findings support the hypothesis that mavens are more likely to frequent restaurants. Mavens are likely to be</p> <ul style="list-style-type: none"> - Well-educated. - Average incomes. - No significant difference between males or females. - Higher levels of education (college degree level) and are mostly professional people. - The most significant predictor item that distinguishes mavens from other market segments is their preference for the physical (food) type of enjoyment

2.4.4.1. Role of the Internet

So far we have considered the types of consumers that can make a contribution valid during the process of NPD. In this paper, has not been considered that the customer-company interaction takes place, increasingly, on a virtual platform: were considered, in other words, only the drivers that explain the ability of an individual to innovate. It is therefore very useful the next model, developed by Fuller, 2011, in which it is considered, in addition to creativity (whose driver have been discussed aforementioned analysis), even the web-experiential behavior. It identifies four types of consumers

- **Need:** Customers with these features may come into contact with the new product development process because they have, in fact, need a solution to a given problem and do not possess the skills necessary to solve by it. People with these characteristics perceive environments virtual for an answer and solution to their needs, answers that you expect to find anywhere else. So their role is to seek information and not to contribute actively in co-creative. (Fuller, 2011)
- **Curiosity:** is web-surfer who comes in contact with development processes new product for the event, or at least without having sought them directly projects. May come into contact with these activities even if not in the past, which have never been occupied. Subsequently can become passionate and stay involved in similar activities. (Fuller, 2011)
- **Intrinsic:** are people who have, in most cases, motivations intrinsic. Their high propensity to use of the web has as a consequence their willingness to propose and suggest creative ideas into virtual environments. (Fuller, 2011)
- **Reward:** individuals are interested in the reward associated with the contribution disbursed in the process of new product development. The web experience does not play a fundamental role: they are people who are not interested in environments virtual, but have a good creativity. So for these reasons, we expect a reward in proportion to their work. In other words they engage in these activities only if considered profitable, and therefore for them is excluded intrinsic motivation. (Fuller, 2011)

The statistical analysis carried out in this study provides a sketch of the different types of customers

You can see from the figures listed in Fuller's 2011 clients co-creators with a high innovation related .The identikit fact has for reward-oriented and intrinsically interested characteristics common to the types mentioned so far in the discussion we have analyzed the reasons for a particular form of interaction between the company and customers: the co-creation through the process of NPD.

2.4.4.2. The innovation that comes from the client

In order to get a comprehensive review on the analysis of the customer as an innovator is very interesting the contribution of Bogers et al. 2010. The article determines that a very important source of product innovations is the final consumer. It should be noted that in the article it comes to innovation in general and not about how and if the end customer will plan to share their findings with the company. It can very well happen, as an extreme case opposite to the co-creation, the customer decides to keep the innovation itself and then become a competitor company.

To conclude this aside: we're talking about motivations that lie upstream of the co-creation; in fact, the will to innovate by the customer is a necessary condition, but not enough so that there is a willingness to take part in a project co-creation. Greer and You confirm this interpretation in the article 2011.

Continuing with the citation of the article of Bogers et al. is illustrated below the reasons that lead an individual to innovate. We identify four reasons, of which the first two related to cost and the last two related benefits:

- Cost of innovation-related knowledge transfer: the final consumers are more incentive to innovate for themselves or in collaboration with enterprises, as their needs are sticky or expensive to transfer
- Other Innovation-Related Costs and Expertise: are costs related to the quantity and type of knowledge that is required for innovation: the higher the responsibility of the customer about the product the lower the costs of undertake innovative activity;
- Expected Benefit from Innovation: is a concept very similar to the reasons of Lead-User: those who expect to benefit more from the use innovation, will be much more likely innovators;
- Other Benefit from User Innovation: customers can get in addition to using benefits also selling its innovation, although the obtaining of patents is a rather complicated process in many areas. In the article other reasons are presented as the intrinsic type fun and finally tried it also speaks of visibility (Bogers et al 2010). Notice that an interesting overlap between the motivations pushes a customer to innovate and co-create.

This conclusion was to be expected as the reasons for the co-creation are direct descendants of those underlying the willingness to innovate. Co-creation in fact is but one-way in which an end-user is proposed as an innovator. In the following section will explain the various types of active customer, in addition to already deal with customer co-creator in the process of NPD and what motivates particular customer to interact actively with the company.

A different type of customer co-creators is the ones that this form of collaborating in a different phase than the NPD: The **Post Launch (PL)**

In order to analyze the reasons that lead a customer to participate voluntarily in this activity is referred to the paper by Nambisan and Baron in 2009. According to the authors, the theory that explains the motivational factors underlying the participation PS activity of the company is the User and gratifications theory.

This theory has been widely used in studies on the benefits that may obtain from the use of media and how these benefits influence the usage behavior of the media themselves. Moreover, this theory goes beyond the previous only the theory of citizenship behavior. According to the theory, which is also true for the interaction along the virtual channels between client and company, the benefits that customers who will participate in the PL can get are the following:

- Cognitive: linked to obtaining information and understanding the environment: in the case of PL it refers to the obtaining of information related to products, technology and the different forms of use of the product;
- Social Disclosures: related to strengthening ties with other people: in the case of PL we refer to social ties and relationships that can arise among the participants in this activity;
- Personal Disclosures: related to the strengthening of the status, credibility and to the trust who receives an individual: in the case of PS we refer to the strengthening of the status of an expert in product knowledge, to following potential to influence the choices of peers and then to try a sense of self efficacy;
- Hedonic: related to the ability to perform pleasurable experiences in the case of PL we refer to the pleasure experienced in conversing with others about the product, points in common the use of the same and the excitement and mental intellectuals that may ensue.

Analyzing the reasons for the willingness of customers to participate activity of PL we can notice some overlap with the reasons for the willingness to participate in co-creative. In fact, in the paper it is stated that these motivations can be safely extended to different contexts co-creative such as product design, which is one of the possible co-creative activities along the process of NPD.

It should also be noted that in the theory of user and gratuity are not taken into consider the extrinsic motivations in their most obvious form as may be the monetary rewards. This is due to the fact that in the article speaks explicitly voluntary participation and as such motivated by intrinsic factors.

Consumers who co-produce information with business

The first type of activism different from the co-creation that will be analyzed is the **co-production of information**, as can be for example sending a feedback to businesses.

The co-production of information was defined as the level of involvement with where clients work with businesses to create new knowledge through mutual interaction.

Have been identified, through a study of the interaction between companies and their customers along the different channels in the electronics industry, three categories of customers providing this contribution: the Passive Users, the Active Informers and finally the Bidirectional Creators.

- The first customers are looking for solutions to their problems and the tracking program allows businesses to the latter, through analysis of the pages and documents consulted along the company's web site (for example in the FAQ section), to identify common problems. This interaction occurs mainly along the canals self-service enterprise.

The behavior of these customers is beyond the discussion of the active customer because the Passive User does not even know to be monitored by the companies. In any case, although not aware of their own contribution, the information that you can to collect studying these customers is very valuable and continuous for businesses.

- The second type includes the Active Informers that provide spontaneously valuable feedback which give rise to the problems encountered experience of use of the product. Such problems can be brought to light mode much more effective by the customer who uses the product.

Basically, these customers report problems but do not seek the solution. With the Internet, customers can, through a click, send precious feedback to express their concerns, criticisms and positive experiences.

Understood the importance of these customers, it is useful to try to understand why they engage in this activity: they hope that their contribution will help the companies to design better products. Another interesting motivation to basis of this interaction is the ability to communicate in advance possible problems. The Active Informers can interact by providing visible feedback to all, such as those posted in the forum attached to the community, or by providing private feedback, if for example interact via e-mail. Discriminant of such behavior is the willingness or not to share with other individuals in their own contribution.

- Finally, in the classification are presented Bidirectional Creators that provide more active contributions in addition to the feedback. In fact, these customers present possible solutions to the problems raised. Knowledge exchanged by and among these customers with the enterprise is not specific, but concerns very diverse topics. The motivation behind this participation, which is in effect a form of co-creation, is the ability to learn something new experience has proven. Also among the perceived benefits as the most significant we have: socializing, that is, the ability to

interact with other members of the community, the opportunity to gain recognition, the opportunity to improve their self-esteem and the opportunity to put in include behavior that will help other customers. Employees companies treat these customers as a very polite and well informed (Blazevic and Lievens 2008).

Those who send complaints, or complaint, which are nothing more than negative feedback represent a particular subset of clients that co-produce information with companies. Not all consumers give businesses the opportunity to correct their mistakes, this is because many customers are convinced that companies do not will consider the suggestions presented, or because they are reluctant to complain. Online customers can easily find much more of the alternatives and the same channel them feel, as already described in the chapter related to motivation, Empowered. Just for these reasons the propensity to customer complaints through online channels presents several differences compared to those submitted by customers who use the traditional channels, where the relationship is in general to face.

In particular, according to a study of Chang and Chin, has been shown to explain the intention of the customer to complain along channels online is effective theory of Planned Behavior (TPB), while for customers who operate through the channels offline more robust theory is that of Reasoned Action (TRA). According to the two theories the intention to complain depends on the attitude towards the complaints, defined as the overall effect of pleasure or displeasure in complaining with sellers, And subjective norms: that is, to what extent the intention to perform a behavior is influenced by the judgment of considered significant by the individual.

The TPB provides an extension than the TRA. This consists in a sort of pre assessment of the possession of the necessary resources to implement the behavior successfully. The latter is a parallelism with the theory of self-efficacy (SE), a motivation behind the co-creation.

In the provision of online services customers play an active part in a part significant service and have more control over the process and thus also on how respond in case there are problems. So you can better understand the result of the study: the TRA explains how effective the intention to complain offline, while the TPB explains the intention to complain online.

The complaints along canals are a form of online activism parallel to the co- creation along the same channel and the study reveals that, although it is activity different, they have a similar antecedent: the self-efficacy for the co-creation, "The overall effect of" goodness "or" badness "of complaining to sellers and not specific to a specific episode of dissatisfaction. "

"The person's perception that most people who are important to him or her think He should or should not perform the behavior in question planned behavior to the complaints. As already said above, the two terms are interchangeable.

Finally, the TRA effectively explains the intention of complaining offline: Since the complaint is done face-to-face turns out to be, as you could guess, the predominant component linked to the

attitudes and subjective norms of the individual. Interesting also note that the size of what is considered to be: Customers in fact complain to those companies that you think will take into account such negative feedback.

So in addition to the reasons, it is crucial to the perception of customer confidence towards the company (Chang and Chin 2011).

Customer Organizational Citizenship Behavior

According to a paper written by Bove et al. 2009, during the process of delivery of a service customers play a fundamental role for the obtaining of an output satisfying.

In particular, they may implement the in-role behavior, ie followers properly conduct required to get a good result in the delivery the service required: an example may be the time to get to an appointment with the operator of the company, or customers can go beyond implementing the extra- role behavior, ie voluntary behaviors, not required by the company in the delivery of the core part of the service: some examples can be notes thanksgiving, the positive word-of-mouth, cooperation and conscientiousness during service delivery and finally sending suggestions to improve the service.

Lengnick et al. Bettencourt 2000, and 1997 show these behaviors with same meaning: to the researchers, this way of interacting with businesses still includes cooperation, offer help and behave politely in relation to the service worker. These attitudes, although desirable, are not directly providing the service required.

It should be specified that the scenario in which it is more likely to observe these behaviors is one in which the customer sees the service delivery *vis-a-vis* with the operator of the front-office of the company.

With these clarifications, we can say that the *extra-role behavior* are all the effects of the types of activism parallel to the co-creation in that they have as overall objective of the voluntary collaboration of the clients with business. This mode implemented by customers is called **customer citizenship organizational behavior**.

At the base of customer organizational citizenship behavior, as well as for the co- creation there is the theory of social exchange.

Among the benefits that explain the motivation to behave in this mode are:

Anticipation of reciprocal rewards (if I behave well with the operator, he will make a better job) and having to take a long term relationship with a service worker and determined so if you act right the first time, you will additional benefits in future reports. It is technique of crude risk reduction. These, obviously, are extrinsic motivations.

However, underlying these behaviors there may be more motivation intrinsic and less aimed at achieving an individual benefit. The first reasons in this regard concern the degree of empathy that can be developed by the service worker. This is due to: the personality conscientious of the customer, to the fact that the customer knows to take the role of the service worker and the presence of a feeling, as the friendship that binds the customer and service worker.

Indeed, in addition to the reasons mentioned above, is fundamental and at the base of willingness on the part of the customer to practice this type of behavior, the relationship that is created with the service worker (which can reciprocate, in turn, similar behaviors related to motivational drives: altruism, conscientiousness to, the propensity not to complain about problems recently, the courtesy and civic virtue).

The result of the survey, conducted in the paper by Bove, demonstrates that the achievement of a good relationship with the service worker depends on:

- The presence of Commitment: namely the desire to maintain contacts along period with the operator with which the customer interfaces;
- By Loyalty: the level of attachment to the service worker by the customer and the extent to which the service worker is dedicated to the customer;
- The level of attention paid by the service worker with the needs presented by the client.

The study also shows that there is a direct relationship between Credibility, namely the confidence in the modus operandi, the service worker and COCB although this impact indirectly as a necessary condition for the development of loyalty against the service worker (Bove et al.2009) So with respect to reasons related to the co-creation, those presented above have the same division between intrinsic and extrinsic.

Also, the basic theory is the same: that of self-determination. However motivations related to COCB are very specific and related to the particular scenario in where they fit. Finally these reasons depend on the particular relationship that is created with the operator front-office company that plays a role crucial. So we're going over the reasons that lead a customer to implement these behaviors (Why) and about what we are analyzing the customer wants to work: it is the service worker, who is none other than the front-end the enterprise. So the client wants to work with the specific firm represented by the operator, that pleases the customer and towards which it tries trust (What). Before the paper by Bove in the literature is the contribution of Bettencourt 1997 which presents the Customer Voluntary Behaviors with the same meaning of the extra Behaviors role.

According to the CVB Bettencourt are divided into:

- Loyalty: involve conduct of loyalty and promotion of the company, beyond their own interests. An example of such behavior can be the positive word-of-mount;

- Cooperation: concerning cooperative behavior of compliance with the rules and policies, kindness and acceptance of what its service provider. The customer also supports other customers, as would a service employee;
- Participation: affect the sending of complaints and suggestions to businesses, for remedy the current problems, to expand existing services or creating new.

Once classified behaviors Bettencourt search the antecedents of these behaviors that are identified by the following variables:

- Customer Commitment: is the attachment of customer in respect of the company, according to a long-term relationship

Global Customer Satisfaction: it is the customer's evaluation of the disbursement process in all its aspects;

- Perceived Support for Customer (PSC) is the perception that the customer has on

As the company is oriented to his satisfaction and that it considers it expresses. According to research commitment has a positive impact on loyalty and participation. The CSP is positively correlated with the implementation of the three behaviors, while the Global Customer Satisfaction has a negative impact on participation.

These reasons have parallels with the reasons prior to the co- creation that were presented in the what and in particular in paragraph

Brand. In fact, according to the analysis of Bettencourt, but also in that of the second part Bove, a willingness to behave in this way depends on the specific report customer with the company, or service worker, and does not include the general reasons as why analyzed in section analyzing the willingness to participate according to the benefits perceived by the customer, but consider what the customer wants to exchange. The thing that is very clear in this discussion: the customer wants to participate actively with a company can ensure the variables to the basis of the will of interacting mentioned above.

Technology-Based Self-Service

Use of **Technology-Based Self-Service** is a particular form of activism put in place by the end customer. We cannot speak properly of co-creation in as this form of interaction provides a kind of outsourcing of some activities the enterprise. The end user will perform these activities, without being any two-way exchange with the company. It should be noted that this interaction creates value for both actors: think of the savings obtainable from the company that is the end customer.

However, the end user will only play for themselves a process pre-set by the company that creates value without directly as can be done, for example, when in cooperation with the firm draws a new

product. Some examples of self-service technologies can be: the automatons that respond to queries from customers, pay directly to the fuel pump after have supplied themselves, the automatic check-out at hotels, telephone banking and finally, all transactions that are carried on the Internet.

As mentioned above the benefits for businesses could be linked to the reduction of costs, however it should be specified that obtaining these advantages depends more significantly from the preparation of the customer to use this form of interaction.

According to a study by Meuter et al. 2005, the willingness of an individual to take part in these processes is not to be found, as done in the literature prior to this article, the characteristics of individuals and in the search for common characteristics as antecedents of innovation. Referring to Meuter et al. what influences the willingness to try a self-service technology depends Consumer Readiness, which depends on the following variables:

- Role Clarity: customers know what is expected from them;
- Motivation: these are the reasons for the desire to choose the delivery of a service through the self-service mode. Also in this study we the division of intrinsic and extrinsic motivations. We intrinsic the prestige, personal growth or just pleasure experienced performing the task. Among the extrinsic are considered: the discounts and savings of time;
- Ability: is the aforementioned concept of self-efficacy.

The previous studies show the basic hypothesis: the Consumer Readiness is a more powerful in explaining the willingness to try a service according to the self-service delivery respect to the characteristics of the individuals and compared the presence of antecedents related innovation. In addition the studies show that the extrinsic variables and *Role Clarity* are the dominant variables within the Consumer Readiness. Besides, there are analogues antecedents with the co-creation due to the size why. Indeed the Role Clarity and Ability are directly related to the self-efficacy, while in the variable Motivation note similarities with the monetary reward, the search for information and the improvement of its technological knowledge and finally the fun.

In the article by Dabholkar and Bagozzi 2002 is presented a model that arises the aim to explore the motivations behind the use of self-service from the customers. The model explains that the intention to use the **Technology-Based**.

Self-Service depends on the attitude, positive or negative, the client puts in place against this mode of service delivery.

The attitude is explained by three determinants that depend on the technology with which an enterprise provides the service: Ease of Use, Performance guaranteed and the level of fun that you feel during the interaction.

Is subsequently sought a relationship between these determinants of attitudes and personal traits of consumers. Among these are considered: the self-efficacy, the continuous search for new stimuli, the need for interaction with a service employee and finally the self-consciousness in particular, between the results has been shown that individuals motivated by self-efficacy, have a much more positive attitude towards the use of more than TBSS this is less easy to use, but for the researchers of the new relationship is reversed and this can be explained by the fact that the latter are not certain whether they will be able to use the service. People with a high inherent novelty seeking are pushed by motivations more intrinsic and therefore tend to be more impulsive in the choice of this mode of use of the service, and they see with particular interest in the fun it is during the process. Motivated by the need to interact with a service employee and self-consciousness instead will have an attitude positive towards the TBSS when they have high rates of the determinants of ease of use, fun and guaranteed performance. This is because the segments are of consumers who use this technology only if "forced" and very rarely, obviously in the presence of the determinants presented above, will benefit from its spontaneous will of the TBSS.

Even in this form of activism we find the reasons similar to those that lead a customer to co-create. The most obvious example is the self-efficacy, while the inherent novelty seeking can be compared, albeit in approximate mode, the search for new information and the skill development, which are the reasons to halfway between the extrinsic and intrinsic ones. There is, of course, parallelism between Self-consciousness is defined as a person's view of himself or herself as a social object, with an acute awareness of other people's perspectives about him or her. In the case of the self-consciousness in TBSS respect of that technology is the tendency not to use it if there are no other customers in the surrounding area) the self-consciousness and the need for interaction with a service employee as these are motivational drives linked to the particular context that was just presented.

The previous studies are particularly important because it has the objective of finding a relationship between the what / what (for example the company that offers a technology self- service easy to use) and why / why a client is motivated to interact (for example, the self-efficacy). It is listed on the next page a table that summarizes the points in common between the reasons related to co-creation along the process of NPD and the forms of activism parallel to it, examined above, and in each of these behaviors.

2.5. Consumer Co-creation at Different Stages of NPD

Having discussed potential antecedents of consumer co-creation in NPD, we now take a closer examination of issues related to co-creation at the different stages of the process: ideation, product development, commercialization, and post-launch.

2.5.1. General

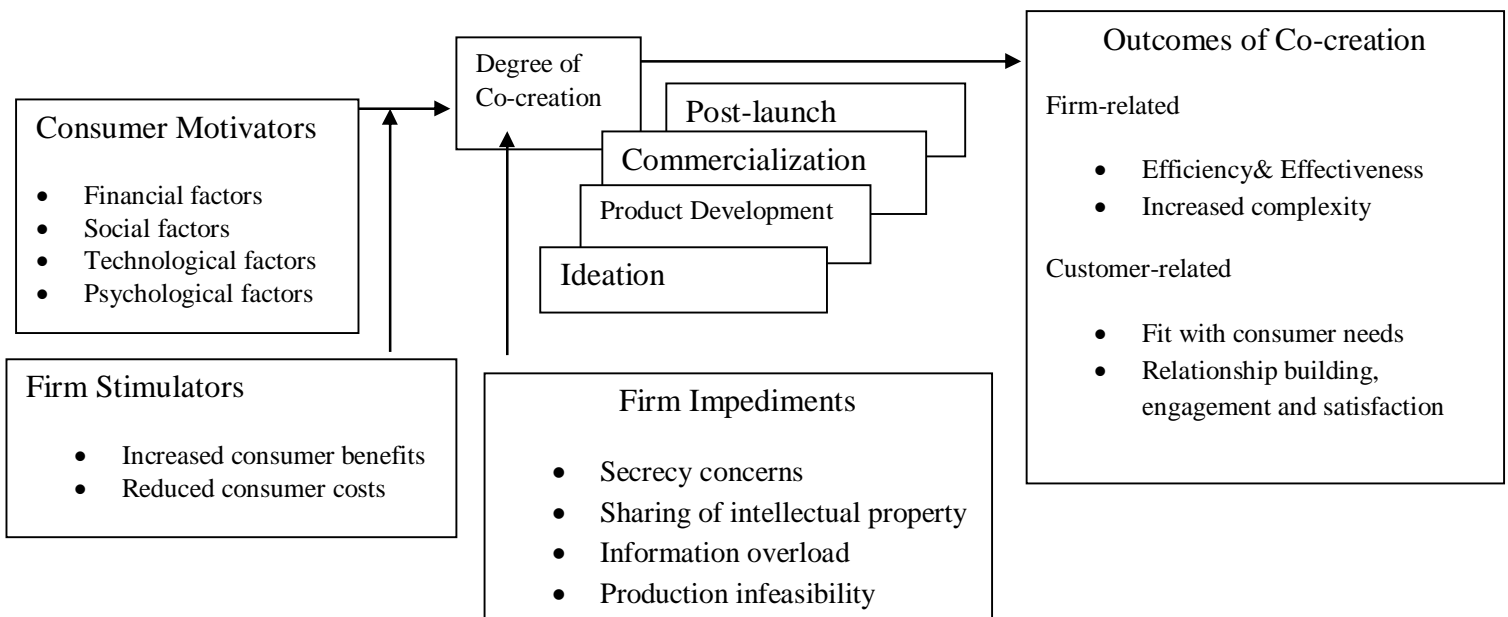


Figure 4. Conceptual framework of consumer co-creation (Hoyer et al. 2010)

2.5.2. Idea generation and Product Development Stages

A high density of consumer whom participants in the idea phase (i.e., idea generation) and product concept development phase can contribute significantly to new product and firm performance (Gruner and Homburg 2000). As regards, the related works on co-creation is bounded and limited, and the works more focuses on B2B contexts, and hardly can find differences between several phases of the NPD process. Traditionally, firms that have involved consumers in the first stages of NPD in co-creating value, having the well techniques for marketing research. For example, firms commonly use focus groups and lead users to develop and narrow down the product concept. However, these techniques are expensive and provide limited consumer-firm interactions. New technologies that are related to the World Wide Web enable consumer-firm and on the other hand consumer-consumer interactions have drastically changed the perspective of the value co-creation (Sawhney, Verona, and Prandelli 2005). Now a day, firms use these technologies with consumers in an efficient ways (Prahalad and Ramaswamy 2004). In the ideation phase, firms can use social media in order to increase both the inputs; it can obtain from consumers at a significantly lower expense (Evans and Wolf 2005; Hull 2004). In addition, they can involve consumers in the concept development stage by sharing the concept with them and actively seeking their input (Grewal, Lilien, and Mallapragada 2006). Altogether, it is shown that involving consumers in the early stages of NPD can save both time and expense and also reduce the risk of failure of the new product.

2.5.3. Launch and Post-launch Stages

Regarding to (Nambisan and Baron 2009) participation of consumers in last two phases is similar to each other in common aspects. For instance, many commercially available software products (e.g., SAS and Stata) significantly benefit from consumer participation in their development after the launch (O'Hern and Rindfleisch 2009). In addition, many successful computer game modifications develop by players (Jeppesen and Molin 2003).

Specifically, new technologies provide valuable opportunities to co-create value in each of the three steps involved in the purchase process, namely, awareness, trial, and repeat purchase.

As soon as customers become aware of a new product and get interested about it, trial should involve customer in the NPD process. Trial will reduce the risk of a new product and also remove many doubts in the mind of potential consumers.

One of the ways that helps many consumers understand what the product is about and how it should be used is encouraging consumer ó consumer interaction. This is important because the experience of other consumers can be more useful for potential buyers than information that provided by the company. Reactions of consumers to the features and the price of product can also help companies manage negative perceptions and modify features before they become a serious problem.

A company can get involved in this process by providing venues to its consumers to share their experiences. Many are already doing so. For example, Del Monte has introduced two consumer communities, “I Love My Dog” and “Moms Online Community” where canine owners and moms, respectively, can interact and share ideas (Greengard 2008). This type of consumer-firm interaction allows the firm to strengthen its relationship with its end consumers, monitor their experiences in order to improve its product and marketing strategy, and spend less money in areas like advertising and supporting the product.

The third step is repeat purchase by adopters. Monitoring social media and getting feedback from consumers can help a firm to understand the reasons that why the repurchase rates is low or understand ways to increase repeat purchase. With new technologies, all this is possible and can be done in a much shorter time than traditional methods. Furthermore, quality problems that may be difficult to understand via traditional methods can be relatively easily detected through consumer conversations about them. Thus, consumer involvement can act as an “early warning system.” At the post-launch stage, consumer participation may empower the consumers to respond to a product or service failure in a manner that abates negative outcomes of the failure (Dong, Evans, and Zou 2008).

2.6. High & low Involvement products

Here I would like to discuss that how the level of involvement can have an influence on motives of consumer for engaging in co-creation activity. In this respect, firstly we go through the definition of consumer involvement. Then, try to bring some examples from both low and high involvement products to be more precise.

According to McGuire's diagram, consumer involvement includes three main stages; Attention, Learning and Acceptance. In the low-involvement product, it's important to know that consumers get involved in the first two phases; attention and learning. While for the high-involvement product, consumers also need to accept the message.

Attention; is the first and important phase of decision making which is to try to create and increase the awareness of consumers through the marketing activities.

Learning; is the process that information is collected and positioned in the mind of consumers.

Acceptance; the message which is delivered to consumers from previous steps should be used and integrated with all their knowledge about the product and similar categories and be sure that what the message says will suit the reality. If it does, consumers will start the positive brand attitude for existing and new users.

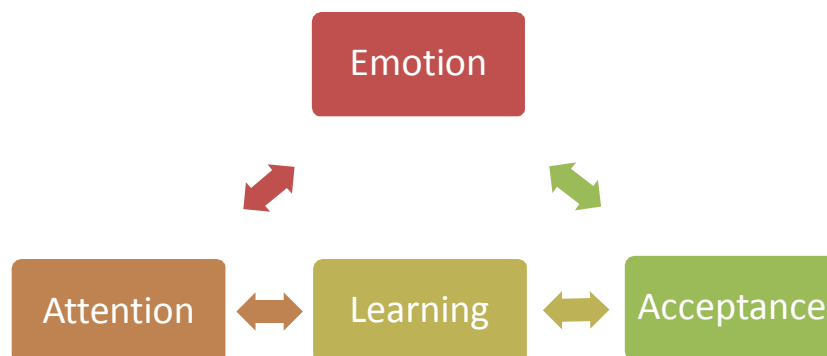


Figure 5. High & low involvement model

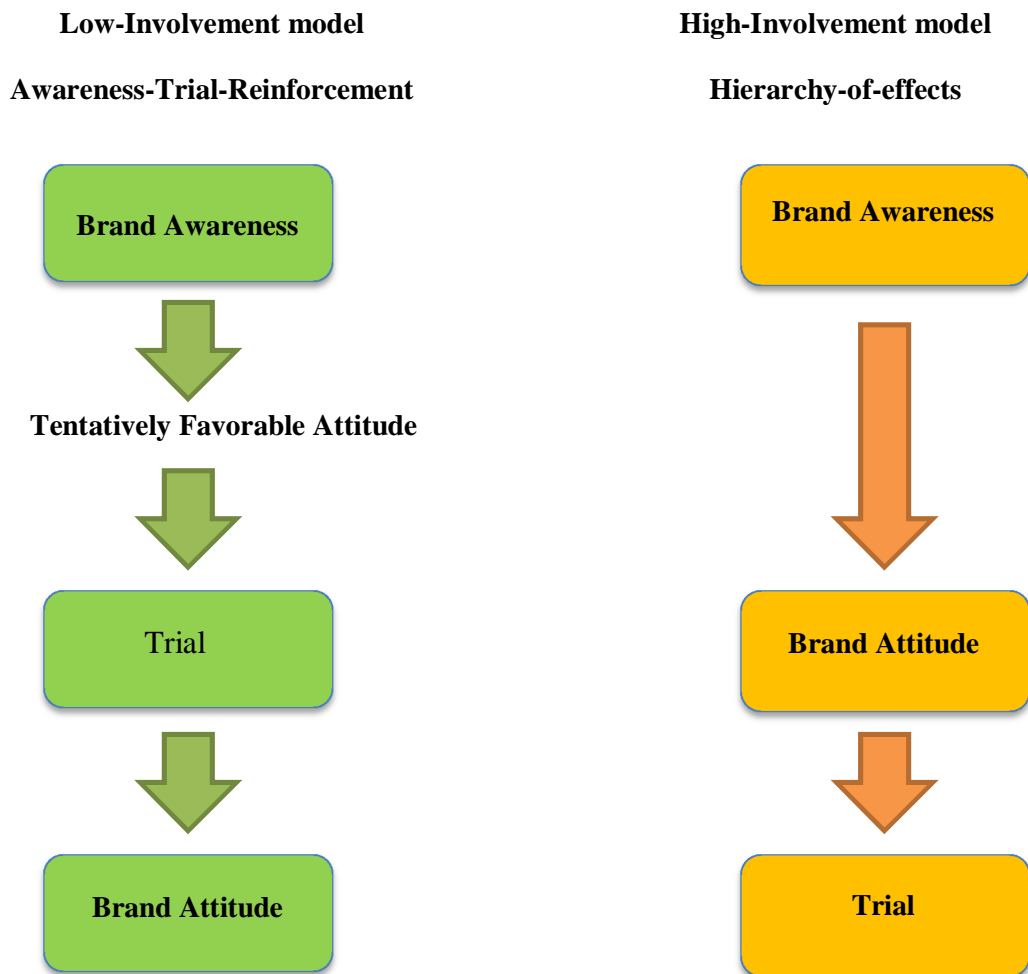
Low involvement and high involvement

High involvement only

Ehrenberg (1974) model, demonstrate that in low involvement model one first should be aware about the product and then base on tentatively favorable attitude consumer decide to test the product. In this step consumer would say "I think, I will like that". Then he will tried the product accepted by the consumer the brand attitude would be settled. Otherwise, the product would be rejected and they will try another product next time because there is not risk involved in this activity.

On the other hand, for high involvement product consumer become aware of the brand but he will not trail unless the message get accepted by consumer and positive brand attitude should be take a place before trail because risk associated by making a wrong choice on purchasing process.

Figure 6. Basic consumer decision models



2.6.1. High Involvement Products

The products, which are important to the buyer and usually, have high capital value. The buyer is spending a significant amount of time and effort to take an action on buying.

For individuals:

- Backpack
- Cars
- Jewelries
- Weddings
- Holiday
- Travel
- Plans
- House

For businesses:

- Office design
- Technological infrastructures
- Advertising
- Hiring of employees (in a certain limit)

THE NORTH FACE BACKPACK

New high-performance workhorse engineered with mountain-savvy technology. Crampon pocket and adjustable ski-carry stabilizers enable you to reach high-altitude, snow-covered peaks. Available in three different volumes (48-liters, 54-liters, 58-liters), range permits multi-day use.

FEATURES INCLUDE:

- ✚ Helmet attachment comes out of bottom pocket
- ✚ Tricot-lined pocket
- ✚ Rain cover included
- ✚ Hex mesh on shoulder straps



Price: 90\$ - 110\$

PRODUCT SPECIFICATIONS:

- **Avg Weight:**S: 3 lbs 3 oz (1445 g); M: 3 lbs 6 oz (1530); L: 3 lbs 8 oz (1585 g)
- **Ext Volume:**S: 3250 in³ (53 liters); M: 3650 in³ (60 liters); L: 4000 in³ (65 liters)
- **Volumes:** S: 2925 in³ (48 liters); M: 3300 in³ (54 liters); L: 3550 in³ (58 liters)
- **Dimensions:** 23" x 13" x 10" (59 cm x 33 cm x 26 cm)

2.6.2. Low Involvement Products

The products, which are not vital, concern for consumer and they are frequently consume in their daily life. Also, consumer doesn't spend too much effort on buying process and usually there is almost no risk for consumer in buying process because the value of product is relatively low.

In this type of product, advertising aim would be mainly increase the awareness of consumer on product and try to encourage them to use the sample product or switch to another competitor.

Some examples of low involvement products:

- Bread
- Toothpaste
- Chewing gums
- Stationeries (pens, staples, paper, etc.)
- Cigarettes
- Movies
- Candies
- PEPSI & COCA-COLA

Archway WINDMILL COOKIE

Soft, chewy molasses cookies with just the right amount of sweetness and cinnamon - they have a heavenly texture that delights.

Price: 3\$- 7\$



2.7. New product development



Figure 7. New product development

Idea Generation: As it shows in the graph for new product there are 4 steps for designing a new product. This process would be generating, developing, and launching the idea and finally the post launch phase. Hence, Standard idea-generation techniques concentrate on combining or adapting existing ideas. It is possible to divide idea generation in co-creation process into 5 different levels:

- 1- Gathering ideas & design received from customers: Receiving the ideas from customers and categorized in different topics respect to functionality of idea.
- 2- Analysis and evaluation of ideas: it consists of the following subjects:
 - List of idea categories
 - Assessment plan
 - Judgment procedure
- 3- Asking for customer evaluation: final list would be extracted from the pool of ideas. Through the voting system, which is, consider other consumers opinion as well as companies experts.

- 4- Preparing the final list of ideas: Conclude the final list, which they gained the highest ranking among all of ideas.

- 5- Deciding for final Ideas: choose the most applicable and innovative idea through the ideas, which are gained the highest ranking during co-creation process by companies' experts.

Product development:

This would include several tasks:

- Preparing the final design and characteristics for the chosen alternatives
- Concept development and prototype
- Testing the product
- Make final judgment

Implementation: This is using all the materials from production development and implementing the ideas.

- Resource estimation
- Engineering/operation planning
- Logistics Planning
- Program reviewing

Post lunch: After lunching the project, for improvement the process

- Receiving the feedback from customers
- Evaluation of Customer satisfaction
- Critical path analysis

This study is focused on first phase of new product development and will not investigate the engagement of consumers in the next steps of NPD. Further research need to focus and compare of motive in high & low involvement product in all phases of NPD.

2.8. Benefits& costs of co-creation

2.8.1. Positive Outcomes of Co-creation

By successfully implementing and managing co-creation, a firm can create two significant sources of competitive advantages (Hull 2004; Payne, Storbacka, and Frow 2008; Prahalad and Ramaswamy 2000):

Productivity gains through increased **efficiency** (e.g., by reducing operational costs):

These outcomes may directly influence organizational performance, increasing the efficiency of operations, product/service turnover, employee satisfaction and ultimately, revenues and profitability (see also Ostrom et al. 2010).

Improved **effectiveness** (e.g., through an enhancement of a product value, innovativeness and learning capabilities, and a better fit with consumer needs): co-creation can provide important gains in the effectiveness of cocreated products. Thus, through the delivery of increased value and by increasing the number of connection points between the firm and consumers, co-creation may strengthen consumer-firm relationships and thereby improve customer equity (see also discussions by Kumar et al. 2010 and van Doorn et al. 2010 in the current issue).(Hoyer et al. 2010)

Ideation and product development

- Cost reduction (inexpensive input from customers)
- Increased effectiveness of products/services (closer fit to consumer needs, higher perceived quality/novelty, better differentiation)
- Strengthening of customer-firm relationship

Commercialization and post-launch:

- Increased likelihood of success and faster diffusion (products/services match customer needs better and higher word of mouth)
- Savings on marketing expenses (greater customer enthusiasm and word-of-mouth effects)
Savings on customer education and other support activities
- Early warning of potential issues with the new product

2.8.2. Costs and Risks of Co-creation

These are the costs and risks of co-creation that should be taken into account as important factors:

- Control over a strategic management and planning of firm will be reduced.
- Innovation playing essential role in management and has a crucial impact on the performance of business (Ernst, Hoyer, Krafft, and Krieger 2010; Han, Kim, and Srivastava 1998).
- The risk of concentrating on incremental innovation more than radical innovation will be increased.
- Uncertainty for the firm will be increased because consumers have affect and co-manage firm's brand (Pitt et al. 2006).
- The empowerment of consumers will increase the complexity of managing firm's objectives and interests of diverse stakeholders like employees, shareholders, cocreators, and other types of consumers.
- Coordination requirements, constraints and other types of non-monetary costs increase with the number of cocreators included (Bendapudi and Leone 2003; Blazevic and Lievens 2008).
- The strategies of cooperation and communications that are required for unpaid cocreators relative to employees should be flexible.
- Consumers compare potential benefits with costs and risks of engaging in co-creation activities (Etgar 2008; O'Hern and Rindfleisch 2009).

Co-creation requires investments from consumers, the investment should be both monetary and non-monetary (e.g., costs of time, resources, physical, and psychological efforts to learn) and may contain some risks for consumers (e.g., the risk of experiencing a failure despite invested effort, the perceived shifting of the responsibility for performance from firms to consumers, the perceived lock-in in the relationship, and the loss of freedom of choice; Bolton and Saxena-Iyer 2009; Etgar 2008). (Andrews et al. 2012)

Ideation and product development:

- Incentives for more and better ideas from customers
- Challenges in recognizing potentially successful ideas from numerous customer inputs
- Managing customer expectations and relationships

Commercialization and Post-launch:

- Challenges in managing potentially negative word-of-mouth

3. Research Design

My research could be divided to main four parts. Firstly, this study going through different articles and papers about co-creation in new product development in literature review and perusing different topics such as definition of co-creation, definition of new product development and their process, who will engage in process and studying the characteristics and motives of each segments and then adopting new product development phases on a high & low involvement. Then, I tried to find out the relation of consumers motives with product itself in co-creation process at the first stage of NPD. Accordingly, to answer this question I conduct qualitative studying to collect adequate data through both survey and in-depth interview. Finally, try to develop a conceptualized model depend on available data to identified the reason of each segment for engaging in co-creation process at first stage of new product development.

3.1. Research Framework

This paper try to model the conceptualized framework which can demonstrate the relation of different consumers motives who are willing to engage in designing and developing the new product with the essence of product. To be more precise, the aim is to study the influence of product itself with consumer engagement.

As a result, this study focuses on two particular products from different product categories such as high and low involvement products. The first category is high involvement product that is purchase after long and careful consideration such as backpack. The second category is low involvement products, which has no substantial effect on the buyer's lifestyle and also do not that significant an investment such as cookies.

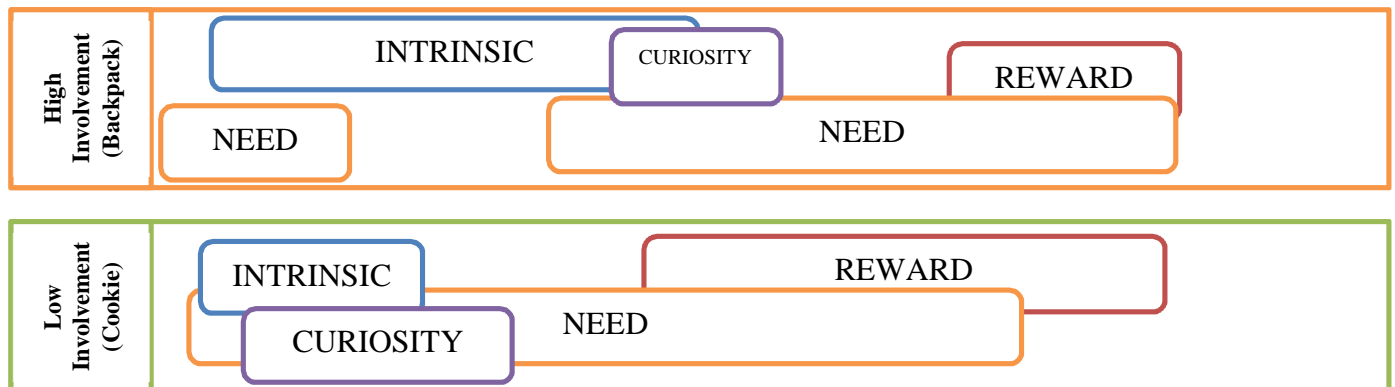
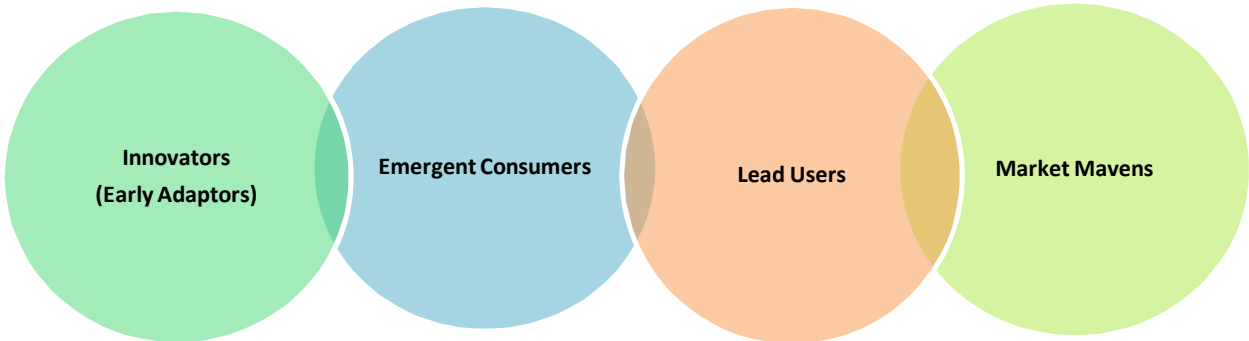
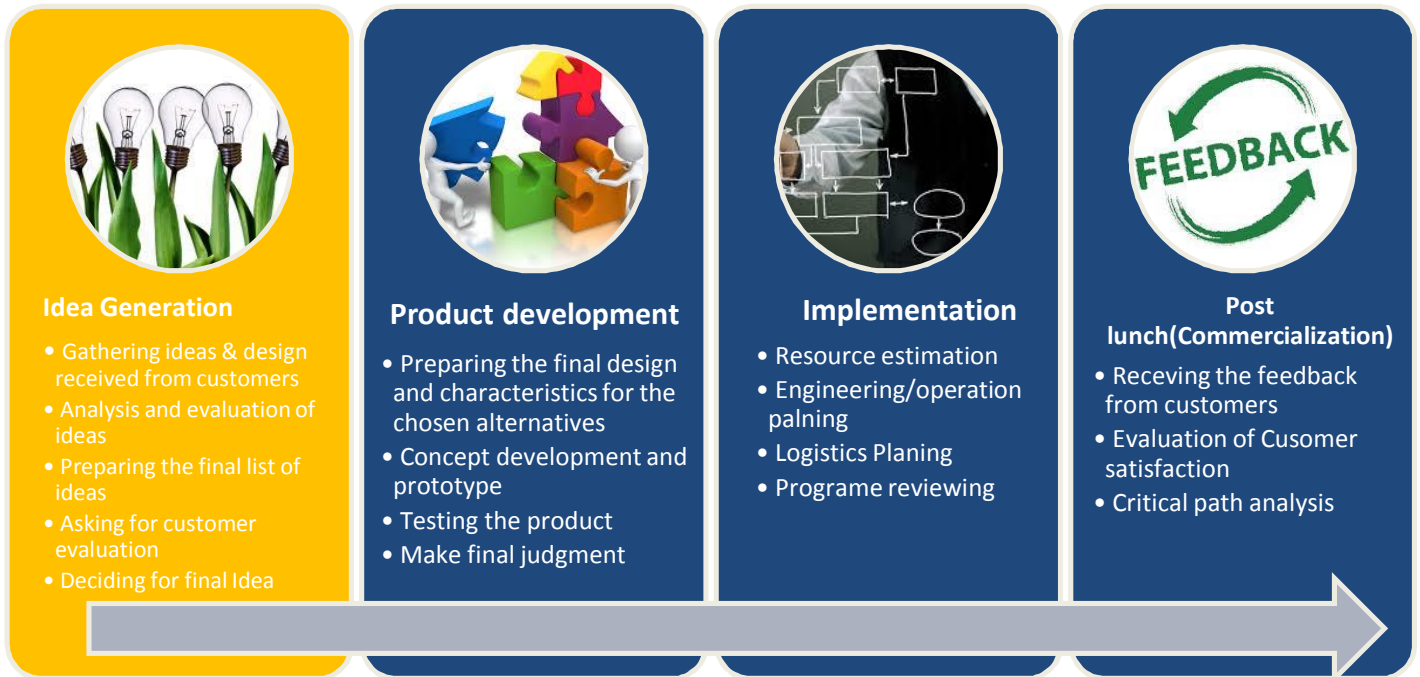
The model shows that, four main consumer segments that are willing to engage in process of new product development have overlap with each other. They will engage in each stage depend on characteristics of each segment. In addition, it's also necessary to know about the reason of each group toward co-creation for these two particular products.

On the one hand the conceptualized model has been designed to illustrate three main points; in first part it is try to demonstrate the stage of new product development. Then, in the center of model it is represent four main consumer segments in co-creation process such as Innovators, Lead Users, Market Mavens and Emergent consumer. Finally, in the last part it is indicating the four main motives such as Need, Reward, Curiosity and Intrinsic. On the other hand, the model displays the relations between motives and segments and also the correlation of segments and NPD phases.

3.1.1. Research Conceptualized Model

Below, there is a model that extracted from literature review and result of data analysis of our questionnaire.

Figure 8. The relations of motives, consumer segments and NPD phases (Conceptual Model)



3.2. Research Question

This section will go through the existing gap in literature review and arguing the main research questions. Regarding to co-creation concept, firms should monitor the customer's action towards co-creation to realize that "why consumers want to engage in co-creation process", "what factors have more influence on their willingness to co-create" and "What is the impact of product essence on customer motives in co-creation of value?" Accordingly, many researches have been done during these years, and they are more focus on impediments, stimulators, costs and risks of co-creation in terms of firm and customer level.

Conversely, there is not such rich information about different consumer segments which are capable and willing to co-create. And also, less information about the influence of product type on consumer engagement and their motives. In addition, firm does not have sufficient information about its customer's behavior toward co-creation. As we noted earlier, preliminary studies have identified segments and their incentives who are willing to co-create (e.g., Fuller 2008; Hoffman, Kopalle, and Novak 2010). Nevertheless, additional research is needed on typologies that are specifically tailored to co-creation. Hereby, this paper is going to discuss about some important parameters which are considered in current studies. So, these concerns are categorized in following points:

- **Does the product itself has an influence on consumer engagement in co-creation of value?**

- **What is the relation of product specifications and characteristics on motives of consumer for engaging in co-creation process?**
 - **What is the impact of high and low involvement on motivation of consumers from different segments in co-creating process?**
 - **Are consumers from the same segment engage in co-creation of high and low involvement with the same incentives?**

3.3. Research Methodology

This paper is trying to conduct a qualitative analysis in order to validate the conceptualized framework which can explain the behavior of different consumer segments who are willing to engage in high and low involvement products. To do so, both online survey and in depth interview will be used for data collection.

The survey is designed to respond by who have interest to collaborate among mostly students and teacher assistants from different universities specifically students of Politecnico di Milano. It contain of two sections, first, it start with five general questions about general information of participants like gender, degree and currently position. Then, in the second part there are nineteen questions which each one is regarding to one characteristic of main four segments such as Lead users, Market mavens, Innovators (early adaptors) and Emergent consumers. So, the results comes from this section is give us a bright view of scale of each segments. To be more prices, each question has its value in terms of its importance. In following table you can see the value of each question. These values are assigned to each question regarding to its importance to identify the scale of each person toward specific segment.

Table 2. Questioner part.1

		Timestamp
		1.Gender
		2.Date of Birth
		3.Degree
		4.University
		5.Currently Position
Lead User	1.5	6.I am an optimistic person.
Innovators	0.75	7.I always have a innovative ideas about different type of things, other people consider me as a creative person.
Lead User	1.5	8.I am an extrovert
Lead User	2	9.I like to be updated about details of new advancements in technology and products
Lead User	2	10.I am sharing and explaining my new findings/reviews with other people.
Lead User	1.5	11.I am open to innovative changes.
Innovators	1	12.I am a person who always like to experience new and different thing.
Innovators	1.75	13.I easily take the risk of purchasing new products introduced to the market.
Market Maven	2.75	14.I find myself well aware about price of different products, promotions, online shopping and websites.
Innovators	1.75	17.I am not afraid of spending money on a new online program and I risk paying for registration fee
Innovators b	0.75	21.Which method of education do you prefer to be adopted by your institute?
Market Maven	2	22.Considering my attitude toward helping and sharing information with others?
Market Maven	1.5	23.Are you an active member of online services, websites and weblogs?
Innovators a	2	24.I prefer to experience new product when...

Questionnaire, is contains two main parts; firstly the general questions such as gender, occupation and age. Then, objective questions based on the characteristics of each group that comes from the literature review. In appendix, you can see the score of each participant respect to his/her answers to questions 6 to 24 with consider the weight of each question. In addition, it is necessary to mention that the scale for each segment is started from 10(not interested) to 50(highly interested). For example, person #1 gain the score 40.5 out of 50 for LeadUserness, 30.25 for Innovativeness,

36.75 for Market Mavenism. Besides, in the last column you can find the reason of each person who has willing for engaging in value co-creation process.

Accordingly, an additional interview has been done among 32 people that are participated in the online survey. The aim was to select certain amount of people from each category and conduct an in-depth interview to realize the characteristics of each person toward co-creation process and the real reasons, which encourage them to engage co-creation process. To do so, people has been selected due to their points from online questionnaire.

4. Own Development

This section is consisting of two main parts, first data analysis part on collected data and then the comparison of different result to reach a practical framework.

Firstly, the result, which is extracted from survey, shows that, there is 155 persons participated in this survey that is 92 male and 63 female. In this respect, students have the highest participation rate among the attendants with 88 persons, teacher assistants with 10 persons and others with 57 persons out of 155persons.

In fact, the survey has been distributed among the Master students of Politecnico di Milano. As a result, near 60percent of participants are from Polimi. Then, University of Milan has the second place with just 7percent and the rest are mostly students from Countries such as Canada, France, Iran, Poland, Turkey and USA. The survey is conducted to evaluate the customer behavior toward co-creation. Refer to Hoyer (2011), survey tried to target main four consumer groups such as Lead User, Market Maven, Innovator and Emergent Consumer. The questions designed to distinguish people to first three categories and for the rest further in depth interview has been held to prevent the biases for first three and emergent consumer as well.

Secondly, further interview has been conducted to evaluate and comparison of motives between 4main categories in two different product. Hence, two products has been chosen regarding to different type of products such as Cookies and Backpack. Respectively, products are selected based on the concept of low and high involvement.

In the low involvement, product is purchasing frequently and the purchasing process is very short without spending a certain amount of time and effort. While the high involvement product, takes a significant amount of time and effort before the purchase has been take a place.

4.1. Consumer Segmentation in co-creation of value

In this section, I would like to argue about consumer segments who has willing to co-create and to categorized them in four main groups as (Hoyer et al. 2010) argued. In the literature review, the aim was to study in detail the characteristics of each group and try to have a general knowledge about these four groups such as Lead User, Innovator, Market Maven and Emergent Consumer. For first three categories there was much information about consumer behaviors and characteristics of members while for the last one is not much clear. Consequently, the online survey has been held to investigate the tendency of participants and try to classify them in first three groups through targeted questions. Moreover, an additional interview has been held to prevent the deviation of answers and to recognize the member of the last group namely Emergent Consumer. Also, realize the real motives of co-creator for engaging in such activities.

In appendix 2, you can find the result of online survey respect to three different segments. There were 155 participants which three persons have been eliminated as outlier. All in all, data collected from 152 people, which they are responding to questionnaire.

The result would be in scale of 10 to 50. Which 50 is highly interested while 10 is illustrate not interested. Questions have different weight regarding to their importance, which is mentioned in table 3.

In table 4, there is a summary of each cluster such as average, maximum and minimum in scale of 10 to 50.

Table 3. Survey data

	Mode	Average	Maximum	Minimum
Lead Users	30.50	31.08	41	12
Innovators	26.75	23.51	36.25	15.5
Market Mavens	25.50	22.73	31.25	9
TOTAL				

Accordingly, an additional interview has been done among 32 people that are participated in the online survey. The aim was to select certain amount of people from each category and conduct an in-depth interview to realize the characteristics of each person toward co-creation process and the real reasons, which encourage them to engage co-creation process. To do so, people has been selected due to their points from online questionnaire.

Table 4. Interview data results

ID	Lead Users	Innovators	Market Mavens	From Interview	Backpack	Cookies
14	27.50	16.25	27.25	Emergent Consumer	Reward	Reward
20	27.50	22.25	23.00	Lead User/Emergent Consumer	Intrinsic/Curiosity	Not Interested
21	32.00	25.00	25.50	Lead User/Emergent Consumer	Need/Curiosity	Not Interested
25	37.00	33.75	28.25	Innovator	Need/Reward	Reward
30	38.00	36.00	24.25	Innovator	Intrinsic/Curiosity	Curiosity
40	32.00	30.25	17.00	Innovator	Need	Curiosity
41	35.50	21.25	18.75	Lead User	Need	Curiosity
44	28.50	18.25	20.00	Lead User	Intrinsic	Intrinsic
49	31.00	30.75	21.50	Emergent Consumer	Intrinsic/Curiosity	Not Interested
50	31.50	19.25	25.75	Market Maven/Lead User	Need/Reward	Not Interested
52	31.00	35.25	25.75	Innovator/Emergent Consumer	Intrinsic	Intrinsic
54	29.00	25.25	28.50	Market Maven/Lead User	Need/Reward	Reward
55	31.00	33.25	28.50	Innovator/Emergent Consumer	Need	Not Interested
57	34.50	32.00	28.50	Lead User	Need	Need/Curiosity
58	27.50	25.75	22.75	Lead User/Emergent Consumer	Curiosity	Not Interested
63	29.00	24.25	25.50	Lead User	Need	Not Interested
68	32.50	26.00	18.75	Lead User/Emergent Consumer	Intrinsic	Not Interested
84	32.00	24.25	28.50	Lead User/Innovator	Intrinsic/Curiosity	Need
89	28.50	26.75	18.50	Lead User/Emergent Consumer	Need	Need
91	30.50	32.50	21.75	Innovator	Need/Reward	Reward
97	28.50	22.00	31.25	Market Maven	Need	Curiosity
109	30.00	26.75	31.25	Market Maven/Lead User	Need/Reward	Need
110	35.50	17.75	25.50	Lead User/Emergent Consumer	Intrinsic/Curiosity	Need
123	31.00	33.25	21.75	Innovator/Emergent Consumer	Intrinsic/Curiosity	Not Interested
126	39.00	22.00	31.25	Market Maven/Lead User	Need	Not Interested
130	40.50	26.25	22.75	Lead User	Intrinsic/Curiosity	Reward
137	NA	NA	NA	Market Maven	Need/Reward	Reward
139	28.50	21.75	20.00	Lead User	Need/Reward	Not Interested
142	36.50	27.00	25.50	Lead User	Need/Reward	Reward
154	39.50	23.75	21.50	Lead User	Need/Reward	Not Interested
NA	NA	NA	NA	NA	Not Interested	Not Interested
NA	NA	NA	NA	NA	Need	Not Interested

In the table below, the results comes from an interview all consumers divided to 8 groups considering their characteristics and attitudes toward co-creation. As an example, they categorized in terms of their score to each of them. The selection process is to overview the score of each person then compare with the average of people from same group if it is above the average it can be part of that group. It will be the same process for all of four groups. Finally, the ones who are gaining more than average of each column are labeled as below;

- ✚ Lead User
- ✚ Lead User/Emergent Consumer
- ✚ Lead User/Innovator
- ✚ Innovator
- ✚ Market Maven
- ✚ Market Maven/Lead User
- ✚ Innovator/Emergent Consumer
- ✚ Emergent Consumer
- ✚ Not Interested

One the one hand, interview has been held to prevent the biases between the results from questionnaire and interview. For example, data extracted from questionnaire shows that participant number 25 has gained 37, 33.75 and 28.25 points for Lead Userness, Innovativeness and Market Mavenism respectively. While, the result shows that interviewee has more tendency as an Innovator rather than Lead User. Totally, there are seven out of 32 participants who have responded differently to questionnaire and interview questions.

Data from interview illustrate the attitude of people who are interested to collaborate in co-creation of value. Firstly, it seems that lead users have allocated the significant amount of participants in this study. Lead users are mostly having overlap with Emergent consumers. Then, Innovators and Innovators/Emergent consumers have the second place while the Market Maven and Emergent have the last position in the table.

Table 5. Clusters participation

Clusters	#	%
Lead User	8	25.00%
Lead User/Emergent Consumer	6	18.75%
Lead User/Innovator	1	3.13%
Innovator	4	12.50%
Market Maven	2	6.25%
Market Maven/Lead User	4	12.50%
Innovator/Emergent Consumer	3	9.38%
Emergent Consumer	2	6.25%
NA	2	6.25%
TOTAL	32	100.00%

4.2. Effect of Motives on Consumer segments

Regarding to (Füller 2010) four motives namely Curiosity, Need, Reward and Intrinsic. The Interview, designed to evaluate the influence of products and its characteristics on motivation of people from different consumer segments. So, the first product has been chosen from high involvement products while the second product selected from low involvement products.

The first product is a Backpack, which is particularly use for traveling, climbing and hiking. Also, the price is considered as high price product approximately between 90\$ to 110\$. Backpack is selected because the product itself needs to have a particular specification, which needs to be investigating in advance. The features of this product are important because of its usage which is use in the mountain and carry many thing so it need to be strong, ergonomic and light. As a result, buying decision takes a time and effort to investigate about quality, brand and price.

In contrast, Cookie is selected as the second product from low involvement category, which it means; consumers do not spend a significant amount of time and effort to search in advance about the type of their biscuits. They mostly take a buying decision inside the supermarket.

All in all, the answer of this question would be interesting; is the type of product (low and high involvement product) has influence on motives of people who are eager to take a part in co-creation process? Is the people from different segments has the same reasons for engaging in co-creation process in both projects or the specification and usage of product have influence on their motivation?

Here, I would like to answers these questions through the result of online questionnaire and additional interview. For the first step, the online questioner discovered the general characteristics of 155 people and divided them different segments refer to literature review. Then, 32people that responded to online survey selected depend on the points that they gained from each cluster. Next, in-depth interview has been held to investigate the motives of people from each segment and realized if there is any discrepancy in their answers to interview with online survey. Finally, try to find out the right answer by proposing an open end and indirect questions.

Interview has divided to three sections; the first part is about general and consumer online engagement questions. While, in the second and third part the questions are mainly focus on the products. As an example, the second section particularly focuses on high involvement products (backpack). Finally, the last part targeted the low involvement products (cookie).

Hence, interview tried to investigate the motives of participant deeply. To do so, motives are categorized based on four main incentives and their overlaps. Such as:

- ✚ Need
- ✚ Need/Intrinsic
- ✚ Need/Reward
- ✚ Need/Curiosity
- ✚ Reward
- ✚ Reward/Curiosity
- ✚ Reward/Intrinsic
- ✚ Intrinsic
- ✚ Intrinsic/Curiosity
- ✚ Curiosity
- ✚ Not Interested

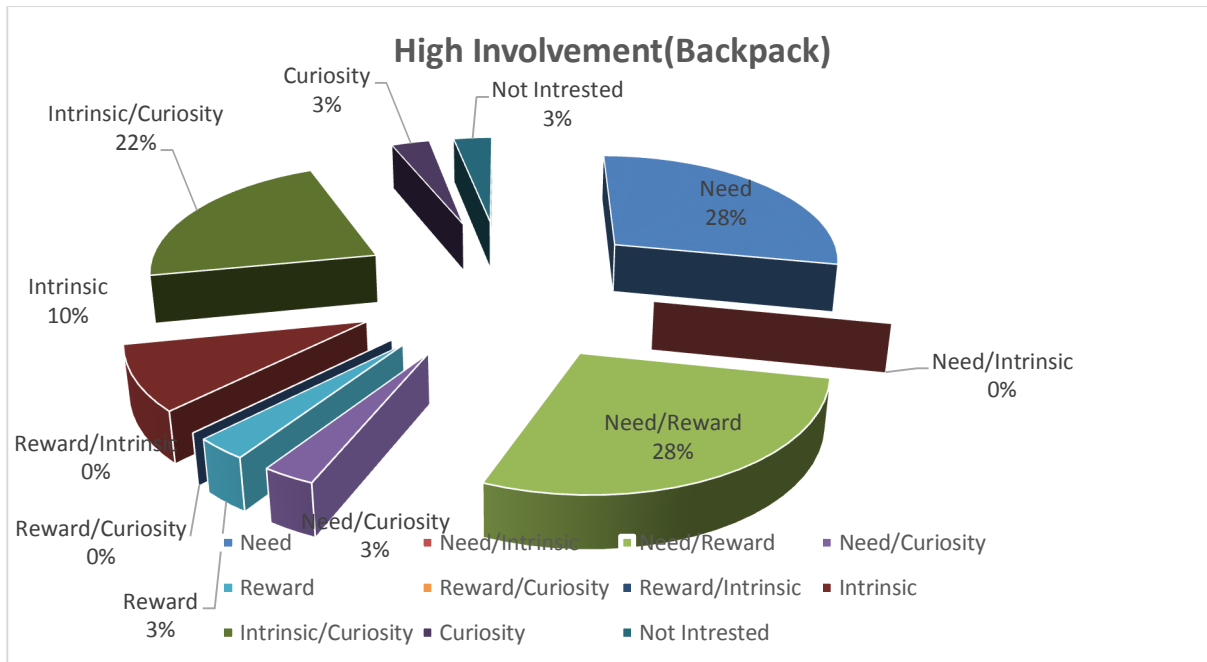
In following table, there are 11 categories, which are extracted from participants, responds to the interview. And, the questions have been asked for both products and the result has been published as below.

Table 6. The relation of motive and participants

Motives	Backpack		Cookies	
	# of participants	%	# of participants	%
Need	9	28.1%	4	12.5%
Need/Intrinsic	0	0.0%	0	0.0%
Need/Reward	9	28.1%	0	0.0%
Need/Curiosity	1	3.1%	1	3.13%
Reward	1	3.1%	6	18.75%
Reward/Curiosity	0	0.0%	0	0.0%
Reward/Intrinsic	0	0.0%	0	0.0%
Intrinsic	3	9.4%	2	6.25%
Intrinsic/Curiosity	7	21.9%	0	0.0%
Curiosity	1	3.1%	4	12.5%
Not Interested	1	3.1%	15	46.8%
TOTAL	32	100.0%	32	100.0%

It is clearly seen from the table that in project 1(Backpack), Need plays a significant role in the mind of consumer as it has earned almost more than twenty eight percent to itself equal to the Need/Reward percentage. Then, Intrinsic and Intrinsic/curiosity have the second favorite incentives. Finally, not interested people has just one percent of the total.

Figure 9. The relation of motives and High Involvement sample



In contrast, in the second project (Cookie), Reward is the most attractive reason for consumers to participate while the curiosity and need have the second alternatives. But, the data demonstrate that more than forty five percent of people who are interested to participate in first project are not interested in the second one.

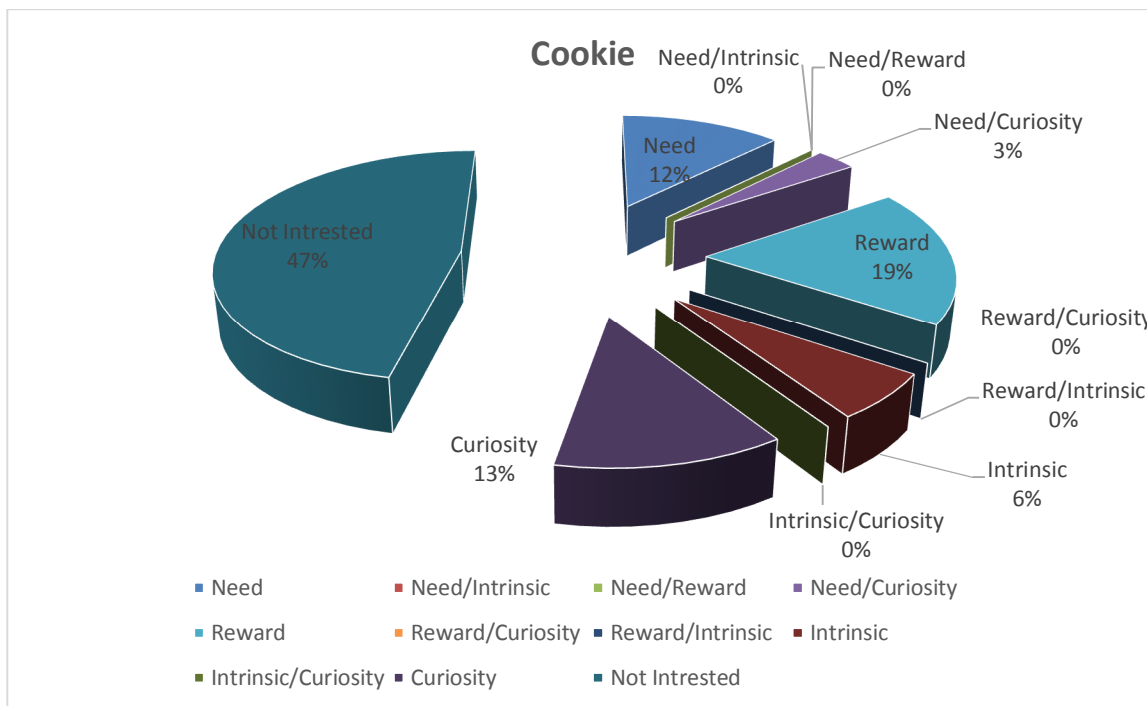


Figure 10. The relation of motives and Low Involvement sample

4.3. Impact of product specification on consumer engagement in co-creation of value

This study is also investigating the reasons of people who are not interested in co-creation. Data extracted from interview shows that more than forty-five percentage of people who were interested to collaborate in high involvement products are not interested in low involvement.

They are argued that in high involvement products in our case backpack; people show their interest due to some parameters of product such as long lasting, usage, frequency of buy and value. These are the main parameters that come from the specification of product that makes the collaboration reasonable for some consumer. For example, some of them argue that;

“I am a not person to change my staff frequently. So, it’s very important for me to have a right choice in buying backpack I prefer to search about it in advance. Also, if I have the opportunity to share my idea with company I would happy to do it”

“The price of this kind of backpack is quite high and it’s not a product that I can easily change if u don’t like it”.

In contrast, for low-involvement products there is no risk involved. They added in such a product like cookies there is not much risk if they don’t the product and also the variety of product is too much so they can easily switch to another brand if they want something different. A person argued that:

“I will not spend time to go on company website and share my idea about the cookies with because I easily can find similar product from another brand. Unless, I realized that my idea can have helped the company to produce healthier product”.

“Not interested because she can modify the product for herself”.

“In case of food not too much because it's the daily need of people and I prefer to do it for to have a better cookies”.

“Not interested, I think the market is saturate and diversity of product is high”.

4.4. Consumer Segments Incentives

In this section I am trying to explain the result which is extracted from interview. It shows that in comparing of high & low involvement products. The motives will be different respect to essence of product. Here, I would like to see the impact of each motive on four main consumer segment in co-creation of value. In the first step it is necessary to know the calculation behind the following data. As we discussed earlier, consumers have been categorized to different clusters refer to their characteristic. So, we conclude reached to 8 groups consist of four main clusters and their mixing groups due to the fact that consumer can have more than one side and they can act differently in distinct situation. For example, someone can be both innovator and emergent consumer but the power of each one can be more or less. I evaluated the weight of each character in participants and if they gained the point more than average I put them in that group as well. In this case, it is possible for one person to select for more than one cluster. Then, I consider the number of attendance of each person in different cluster and divided by total respect to motive and I reach the percentage for each cluster.

4.4.1. Lead User (LU) / Market Maven (MM):

Current study shows that need is play a significant role in motivating lead users in collaborating in both high and low involvement products.

The result can be explained the concept of leaduserness which is the person who face the need before others. Refer to their responds to the interview they argued that they are not satisfy with the existing product in the market and they would like to collaborate in designing a backpack that can fix the shortcoming of existing products and increase the satisfaction. As an example, the backpack with different material, the place for tent and different type of handle to prevent back pain. The statement supported by responded to the interview among lead user consumers in both samples. They argue that they are not satisfy with the existing products in the market. In the case of backpack

õI am not participate because it's a new task. I am participate because I think the existing product is not satisfy my needsö.

õI always thinking about different shape of backpack which is lighter and the different design of handle can help to scatter the weight of bag all of your back not in a particular part which I think is healthier to carryö.

In low involvement sample, lead users are confirmed that need is the first stimulator that persuade them to collaborate. In case study of cookies the consumers usually make a buying decision inside the supermarket. This particular group reason that they will engage because they are not satisfied with the existing product. For example, they couldn't find the taste that they except or they want to share the recipe of their own with other users, etc.

õMy grandma is cooking a special fascinating cookies at new year. I am searching to find the same taste in other cookies but I couldn't. I am very happy if I can share the recipe with companies that everyone can have chance to taste itö.

So, they feel the lack of something in existing product and they want to share these experience with company and other consumers.

õYes, I always think that the cookies could be something different which can be more deliciousö.

Consumers from this category also express their need for sharing the information with other consumers. This need is quite important for them regarding to the characteristic of this group which has tendency to share their knowledge with other about particular product.

As we can understand from the characteristics of market maven it seems that need is an important factor that encourage the market maven to collaborate in high involvement sample as well as Lead users. As it mentioned earlier, need is known as the first incentive for market maven (MM) with 60% in high involvement product. The same as previous group in high involvement product they are feel the deficit in the backpack as it should be more functional than ordinary bag. And also, the need of sharing information with others is an important point for the members of this group as they all have general understanding and knowledge about the market. The need of showing themselves in the community of product encourage them to take apart in co-creation process. As one of them said; "I am the member of climbing group and we have an online forum that give us an opportunity to share the info about place, price and quality for climbing facilities. I would happy if I can tell my opinion to the company and they hear my words and ideas about climbing bag".

Despite, in low involvement products such as cookies reward is the substantial motive which is come to the first priority to persuade them to engage in co-creation process among market mavens. As it comes from the characteristics of market mavens they are mostly have general knowledge of market and product and they are very open to share the information with other consumer and the need of sharing and spreading information is always a good incentive for them to engage in such a collaboration. Besides, they like to be known in brand community and the reward is not just a monetary compensation but social respect or prestige status can be a sort of reward for them.

Here is the example of participant that is indicated the non-monetary reward in his respond to interview questions which is clearly shows that getting attention from the brand community is an important factor for this participant.

"I'd like to be well known in the brand community. And everyone know me as a person with the great ideas. It's important for me if they know that idea selected within the community".

4.4.2. Innovator (INN)/ Emergent Consumer (EM):

As it's clear from the meaning of Intrinsic it would be in the nature of people to like the innovative thing. Results from interview shows that INN is the first group which is motivated by intrinsic reason in high involvement project. In addition, they are mostly young and open to take a risk. It's probably lead them to engage in backpack sample due to their instinct so the weight of intrinsic factor is increase in their behavior in high involvement product. On the other hand, the value that they are seeking for and the amount of risk that involved is not much to encourage their intrinsic motive so they are going to search something else rather than innovativeness and in this case reward would be the best incentive for this young well-educated cluster.

In addition, data from interview shows that intrinsic is the first incentive for innovators in backpack project. But, this is not an interesting motive for persuading innovators. We will go through the reasons of this in following sections. Consumers from this category is usually searching for something new or the new concept of thing. Also, they are thinking how they can change the product to the new one which can satisfy the need of consumers. As a result, this character lead them to collaborate in new product development. As I mentioned earlier, it was very clear from their dialogue that they are naturally have always many new ideas in their minds.

“Yes, because I always think about new concept and design in product which is not existence. I'd like to share my ideas with other people and also listen to others. I believe that new ideas can help to have better products.”

For emergent consumer (EM) curiosity and intrinsic are two main motives for EM for collaborating in co-creation of value in first sample. In contrast, in the second sample need has the first place with 50% then intrinsic 25% and finally reward have 25%. It is very clear that emergent consumers are the people which are naturally capable of applying intuition to improve the product concept. Accordingly, they are seeking for new ideas and new method of usage. In this sense, they are always curios about new thing and most of the time they engage in such an activities to observe new ideas and share their idea with others.

The outcome of interview is clearly demonstrate that the nature of emergent consumer is actuate them to be curious about the new thing happen around them. They are seeking for new ideas and method. So, curiosity is the main reason for emergent consumer regarding to their distinct in high involvement product. Generally, curiosity is not primary reason for participants in this study in both high and low involvement product.

To sum up, the results illustrate that intrinsic is the only reason which exist in both projects and it influence emergent which it can be in line with the nature of this cluster. Here, you can find some examples of consumer statements during the interview among the emergent consumers.

“I am eager to know what the steps are for this activates? How the process of idea acceptance, validation and voting system isö.

“Yes, I'm often think about how would be a better cookies also I will add my recipes to existing productö.

“Yes I like to design it and share with others/ I always like to share my ideas with others and like very much and I will do it easilyö.

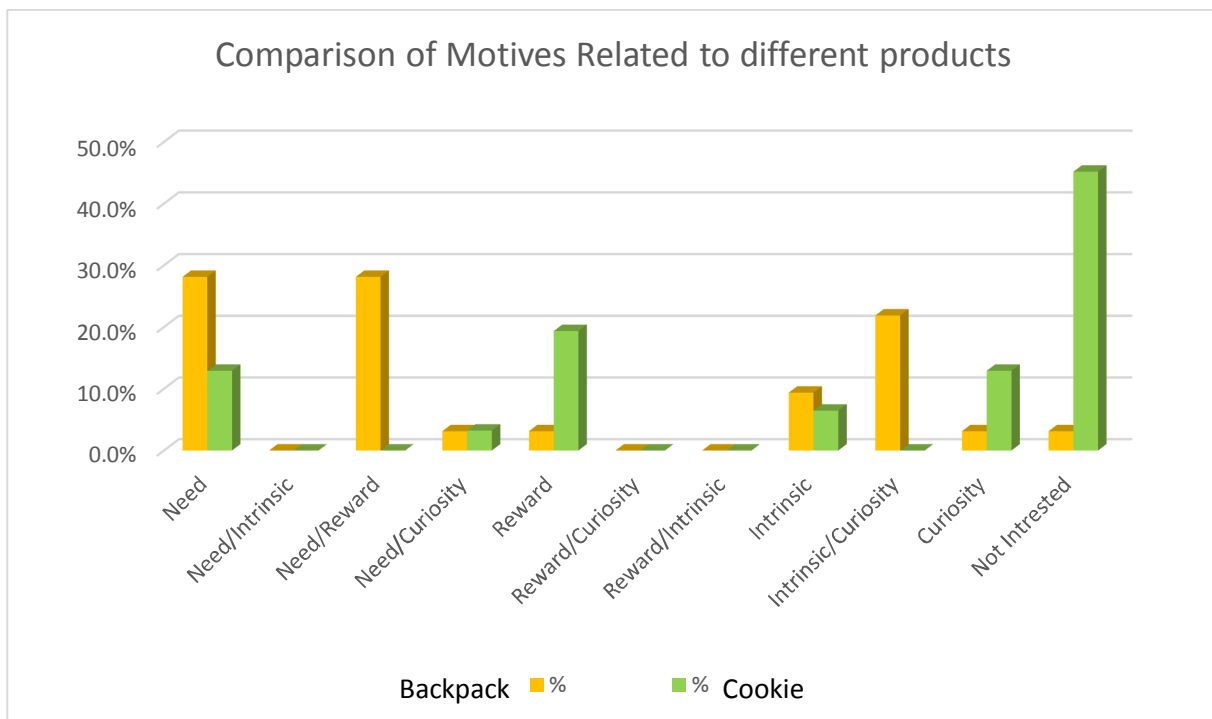


Figure 11. Comparison of Motivation in High and Low involvement product

4.5. Comparison of each motive's effects

In conclude, in high involvement products people are mainly more interested to engage in co-creation project. They are arguing that the in high involvement not completely satisfied with existing products and they want to apply their ideas to the existing products to improve the customer satisfaction. Also, they discuss that the value of product and duration of usage would be another factor that can influence on their decision to engage on co-creation process.

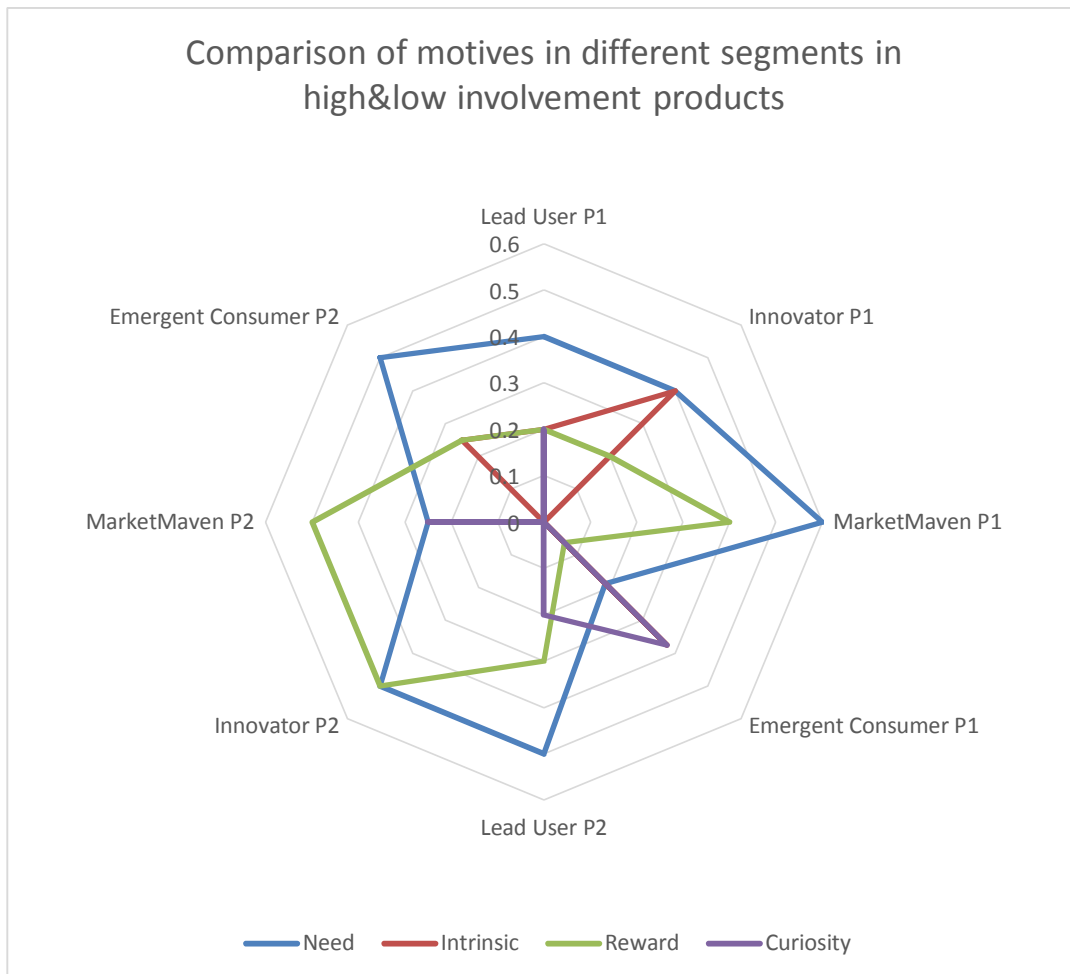


Figure 12. The relation of four main motives and consumers segment

4.6. Consumer Involvement and brain functioning

Regarding to Krugman (1977), **high involvement** includes **left-brain** process while **low involvement** get involve **the right side of brain**. Researches on human's brain shows that right-brain is process nonverbal, pictorial and holistic perception while the left-brain is mostly process verbal, cognitive and attributional information (Hansen).

So, this assumption will be implied that low involvement generate noncognitive, nonverbal, pictorial, holistic process. Conversely, high involvement generates completely the opposite.

In addition, Hansen (1981) argue that with high involvement "more psychic energy is released for handling incoming information, sorting it out, and making choices." Also, refer to Hirschman and Holbrook (1982), they are proposing that right part of brain are processing more emotional and imaginary experience and it namely high-affective involvement process. While, left-brain involve in high-cognitive involvement.



There is a hypotheses from Weinstein and Weinstein (1979) which argue "TV commercials will generate more right-brain than left-brain activity". Indeed, the higher recall commercials are creating left brain dominance. Finally, they conclude that on one hand paper commercial like magazine advertisement process by left brain but on the other hand TV advertisement will process through right brain.

It would be an interesting hypothesis that regarding to the characteristics of each cluster and the relation of their brain process in consumer purchasing process. It seems that lead users and market mavens are process with left side of brain as they are mostly act based on cognitive and verbal reasons. Indeed, the result from study is also shows the weight of two motives such as need and reward are more than others and it leads them to engage in activities who engage the left-brain such as high involvement activities that Backpack is a good example of this category. Thus, we can conclude that lead user and market maven are more interested to take a part on high involvement activities rather than low one.

Instead, Innovators and emergent consumers are more includes right-brain process regarding to the nature of their clusters. People from this category are mostly act based on noncognitive and nonverbal reasons. As a result, the study shows that intrinsic and curiosity plays a significant role in their decision making which are the motives that engage the right side of brain as well. Consequently, Innovators and emergent consumers are more likely to engage in low involvement products as our second sample which involves right side of brain.

5. Conclusion

To put everything in nutshell, this research concluded two main points. Firstly, the relation between motives and different consumer segments. The outcome of this part help us to know the real reasons of engagement in co-creation process for each consumer segments in two main product category such as high and low involvement.

The first objective was to compare the reasons of each four groups such as Lead users, Innovators, Market mavens and Emergent consumers for engaging in co-creation process in two product categories. As a result, firstly, the output of collected data shows that **Need** is the most important motive for encouraging consumers who have willing to collaborate in both high and low involvement samples.

Secondly, **Reward** is a charming stimulus for consumers who are involving in collaboration of cookies (low involvement product) while this motive is not a demanding incentive for backpack (high involvement) also Market mavens have gotten the most impact by this motive.

Thirdly, the results illustrate that **Intrinsic** is a significant incentive for Innovator and Emergent consumers for engaging in co-creation and also it would be a good motive for Lead users as well. While, **Curiosity** is a primary reason for Emergent consumers in first sample.

Fourthly, the relation of brain processing with the characteristic of each cluster and the motives that stimulate them. It is important to know that the message is process with which part of brain. For instance, high involvement product is processing with left side of brain and mostly the segment with the same type of character such as lead user and market maven receive this kind of massages and also the motives that encouraged them is more cognitive motives such as need and reward. On the other hand, right-brain activities are more noncognitive like low involvement product which involve the segments with the same behavior such as innovator and emergent consumer. These two segments are naturally have the attitude that be processed by right side of brain such as seeking for new idea which comes from two main motive such as intrinsic and curiosity. Hence, if we divided these clusters to two different categories;

First, left-brain category High involvement product; lead user and market maven; need and reward.

Second, right-brain category; Low involvement product; innovator and emergent consumer; intrinsic and curiosity

But in both of categories they have one thing in common. In first category all of them are more left-brain. While, in the second group they are more right-brain side. Further study is needed to with more samples. Understanding of this hypothesis can be very useful for firms to adopt a right marketing campaign.

For example, as Weinstein (1979) argued "TV commercials will generate more right-brain than left-brain activity". They can use the paper commercial for first group and TV commercial for second one.

Last but not the least, the essence of product can have influence on decision of consumer to get involved in the co-creation process or not. The parameters like value, long-lasting, risk and usage of product is all parameters which will attract consumer to think about next steps. Also whenever the percentage of online engagement is higher the probability of collaboration will be increased. Therefore, a better understanding of consumer characteristics, behavior, involvement and motives can help us to target our effort to encourage a right segments through the right motives to be more efficient toward co-creation process. Indeed, it helps the firms to do adopt right marketing campaign through a targeted consumers.

Finally, it is clearly obvious that understanding the patterns of consumers' involvement due to their characteristics can help firms to use target oriented marketing strategy toward co-creation process to be more efficient.

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- A Framework For Relating Consumer Involvement to Lateral Brain Functioning ; Banwari Mittal, State University of New York at Buffalo

Appendix 1. Survey

öThe survey is designed to be responded by whom have interest in collaborating in the first stage of NPD in two different projects such as fast moving and and fashion. Please fill out this form when you have no distraction. These data will be collected for university research purposes.ö

1. Gender:
 - a. Male
 - b. Female
2. Date of Birth:
3. Degree:
4. University:
5. Current Position:
 - a. Student
 - b. Teacher Assistance
 - c. Others

Please indicate the level of your agreement with each statement in a scale of 1 to 5; 1 being strong disagreement and 5 being strong agreement.

6. I am an optimistic person.

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

7. I always have a new idea and other people consider me as a creative person.

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

8. I am an extrovert

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

9. I like to be updated about details of new advancements in technology and products

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

10. I am sharing and explaining my new findings/reviews with other people?

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

11. I am open to innovative changes

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

12. I am a person who always likes to experience new and different things.

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

13. I easily take the risk of purchasing new products introduced to the market

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

14. I find myself well aware about price of different products, promotions, online shopping and websites.

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

15. I am following new teaching/learning methodology through Journals, websites and weblogs frequently.

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

16. My ideas about new courses usually are innovative for my friends and after a while it is found to be useful by others.

Strongly disagree 1. ● 2. ● 3. ● 4. ● 5. ● Strongly agree

17. I prefer to experience a new product

- a. As soon as it becomes available in the market and I usually like to be the first person to have a new product
- b. When I have received feedback by some people prior to trying it by myself.
- c. When it is accepted and becomes popular with the market
- d. No, I am ok to buy an outdated product but not to pay premium for a new product.

18. Considering my attitude toward helping and sharing information with others

- a. I never/rarely do that
- b. I like to but I am worried to start the process
- c. I feel confident enough to share it with others

19. Are you an active member of online services, websites and weblogs?

- a. Not a member
- b. Normal member
- c. Frequently interacting member

Appendix 2. Interview Questions

QA		Interview Questions
1	Online engagement/ General	How many hours a day are you usually spend on the internet?
2	Online engagement/ General	How often are you checking the fashion websites/outlet/shopping site such as BuyVip/showmwprive?
		Product: Backpack
3	Online engagement/ Product	When you want to buy a new product such as bag pack, do u usually reviewing on the internet in advance?
4	Online engagement/ Product	How much time you spend for searching and reviewing the brand/design/quality?
5	Need	Are you satisfy with the design and quality of existing bag pack on the market or you prefer to collaborate and design yourself?
6		Do you like to participate and collaborate in designing and creating a new bag pack?
7		Do you ever heard about online co-creating activities?
8		Have you ever participated in such activities?
9	Curiosity	Dose it seems a new interesting task which you eager to find out what is the collaboration process?
10	Intrinsic/ Innovative	Do you enjoy dealing with new and innovative thing?
11	Need	Do you think this kind of collaboration help you feel more satisfy with your ideal bag pack?
12	Lead User/	Do you think that collaborating in this activity can improve your knowledge about new bag pack by sharing and consulting with other consumer as well?
13	Reward	Do you hope that other consumers or company like your idea and u will be known in the brand community?
14	Emergent Consumers	If someone tell me about developing the idea of new Backpack" I can quickly imagine a practical idea and design for it

		Here, I will explained the process of co-creation in fast moving product. The design can be categorize in packaging, shape, taste (material in use). And company asked its customers to participate in an online event that customer can share and upload their ideas and design about of different kind of cookies on the company website. Then, other customer can put the comment and rate the design. Finally, company will produce the possible design that earned the acceptable level of vote.
		Product: Cookies
15		How frequently are you buying a cookies/bread from supermarket?
16		Are you usually buy these products as you see them in the shelf of supermarket or searching in advance?
17	Need/Satisfy	Have you ever think that the cookies you like would be better in different shape/design/taste? It would be more attracting or delicious?
18		Do you have any idea in mind that it can be improve the quality of product?
19		Think if you asked to collaborate in an online contest for sharing your design and idea for cookies/bread for your favorite brand in terms of shape, package and materials, are you interested or not?
20	Reward	If you have the availability to share your idea and design with company and other customers would u do it voluntary?
21	Need/Satisfy	Are you dissatisfy with current products and you think this activities can improve the quality of your favorite product and cover the lack of existing products?
22	Intrinsic/Innovative	Do you like to take apart in such activities that are completely new? Do u think that you would participate because this is a new task and you didn't do this kind of activities before and it would be fun?
23	Curiosity	Do you participate because you eager to find out what is the process of idea generation, voting and publishing the idea?
24	Reward	Do you think that designing the new type of cookies can be rewarded by the company? Do you hope to get a monetary compensation?
25	Need	Do you think that your new design for cookies would be fulfilled the lack of existing product in the mind of consumers?
26	Reward	Have you ever participated in voluntary activities? Or you are usually searching for monetary rewards in social activities?
27		If you take apart in this activities what would be the main reason of your participation?

Appendix 3. Data from online-survey

ID	Gender	Date	Degree	University	Lead Users	Innovators	Market Mavens
1	Male	10/16/1974	MS.c	Bellevue university	36.00	26.25	25.50
2	Male		MS.c	Bologna	35.50	23.75	19.75
3	Male	12/26/1988	BSc	Brera	31.50	19.75	25.50
4	Male	11/13/1998	MS.c	Eastern Mediterranean University	24.50	25.75	22.75
5	Female	5/4/1980	MS.c	guelph	33.50	26.00	21.25
7	Female	8/28/1987	PHD	IOWA State University	39.00	27.50	18.25
8	Female	4/21/1985	BSc	Iran University of Science and Technology	27.00	17.25	21.50
9	Male	8/24/1975	Phd	Islamic Azad University	36.50	27.00	25.50
10	Male	5/7/1988	Management Engineering Masters	Istanbul Technical University	31.00	26.50	25.50
11	Male	5/4/1988	MS.c	Karlsruhe Institutie of Technology (KIT)	30.50	21.25	31.25
12	Female	8/7/1988	MS.c	University of Milan	18.50	20.50	13.00
13	Male	4/12/1988	MS.c	University of Milan	31.50	24.75	21.25
14	Male	2/5/1984	BSc	Islamic Azad University	27.50	16.25	27.25
15	Female	2/11/1987	PhD Candidate	Islamic Azad University	30.50	22.50	24.50
16	Female	8/25/1984	MS.c	Of Iran	25.50	19.00	24.25
17	Male	7/27/1986	MS.c	University of Milan	37.00	25.00	28.25
18	Male	10/20/1986	MS.c	Oregon State University	20.50	25.25	18.50
19	Male	1/10/1983	PhD	Ottawa	30.00	24.50	22.75
20	Male	2/8/1987	MS.c	Polimi	27.50	22.25	23.00
21	Female	3/28/1982	MSc Computer Eng.	Polimi	32.00	25.00	25.50
22	Male	7/7/1985	Ph.D Student	Polimi	36.00	23.00	28.50
23	Male	9/20/1984	MS.c	Polimi	29.00	25.00	25.50
24	Male	9/23/1988	MSc Management engineering	Polimi	28.00	23.25	24.25
25	Male	9/9/1986	MS.c	Polimi	37.00	33.75	28.25
26	Male	7/24/1981	MS.c	Polimi	36.00	21.75	25.50
27	Female	9/17/1982	MS.c	Polimi	30.50	26.50	25.50
28	Female	2/11/2014	MS.c	Polimi	30.00	16.75	18.75
29	Male	11/27/1984	Ms in management engineering	Polimi	31.50	20.00	22.75
30	Male	5/13/1985	Master of Management Engineering	Polimi	38.00	36.00	24.25
31	Male	9/27/1983	MS.c	Polimi	28.00	16.00	25.50
32	Male	7/1/1985	MS.c	Polimi	34.00	25.00	28.25
33	Male	1/1/1983	90/110	Polimi	12.00	28.25	19.75
34	Female	2/3/1982	MS.c	Polimi	30.00	25.25	19.75
35	Male	5/1/1982	master of sc mgm eng	Polimi	33.00	19.25	21.50
36	Male	12/25/1982	MS.c	Polimi	34.00	27.75	22.75
37	Female	9/22/1988	Master Degree - Management Engineering	Polimi	23.50	15.50	18.50
38	Male	4/30/1988	Management	Polimi	22.50	16.25	18.50
39	Female		MS.c	Polimi	35.50	17.00	17.25
40	Male	6/6/1989	MS.c	Polimi	32.00	30.25	17.00
41	Male	5/5/1988	Master in Management Engineering	Polimi	35.50	21.25	18.75
42	Female	9/9/1987	MS.c	Polimi	25.50	19.00	16.00
43	Male	10/29/1986	MS.c	Polimi	34.50	21.75	18.75

44	Male	4/21/1985	MS.c	Polimi	28.50	18.25	20.00
45	Male	4/16/1987	Mgmt Engineering	Polimi	28.50	18.25	20.00
46	Female		Management	Polimi	36.50	29.00	25.75
47	Female	11/28/1988	MS.c	Polimi	32.50	26.00	25.50
48	Female	2/17/1983	Master in Management Engineering	Polimi	29.50	19.00	16.00
49	Female	4/7/1983	MS.c	Polimi	31.00	30.75	21.50
50	Male	5/14/1987	MS.c	Polimi	31.50	19.25	25.75
51	Male	7/7/1987	MS.c	Polimi	36.00	21.25	28.50
52	Female	9/21/1986	PhD	Polimi	31.00	35.25	25.75
53	Male	12/22/1986	MS.c	Polimi	34.50	18.25	22.75
54	Female	6/25/1987	MS.c	Polimi	29.00	25.25	28.50
55	Male	10/27/1986	MS.c	Polimi	31.00	33.25	28.50
56	Male	4/1/1982	MS.c	Polimi	25.50	22.00	22.75
57	Female	8/27/1979	MS.c	Polimi	34.50	32.00	28.50
58	Male	6/6/1982	MS.c	Polimi	27.50	25.75	22.75
59	Male	9/21/1983	MS.c	Polimi	27.00	24.00	24.50
60	Male	11/20/1983	BSc	Polimi	35.50	26.00	28.25
61	Male	2/2/1987	MS.c	Polimi	33.00	23.25	28.50
62	Female	5/12/1983	MS.c	Polimi	32.50	25.00	23.00
63	Female	1/30/1986	MS.c	Polimi	29.00	24.25	25.50
64	Female	7/1/1982	BSc	Polimi	24.00	24.00	9.00
65	Female	7/26/1987	MS.c	Polimi	28.50	30.75	21.50
66	Male	1/10/1985	MS.c Management Engineering	Polimi	31.50	17.00	17.00
67	Female	4/23/1989	MS.c	Polimi	27.00	23.00	18.75
68	Male	1/27/1989	MS.c	Polimi	32.50	26.00	18.75
69	Female	1/8/1983	MS.c	Polimi	37.50	26.75	25.50
70	Male	9/18/1988	MS.c	Polimi	33.00	22.25	20.00
71	Female	12/6/1980	MS.c	Polimi	20.00	23.50	28.50
72	Female	12/12/1987	MS.c	Polimi	35.50	26.50	21.50
73	Male	1/3/1986	MS.c	Polimi	31.00	23.25	17.00
74	Male	9/4/1989	MS.c Management Engineering	Polimi	27.50	23.25	18.50
75	Female	9/20/1980	MS.c	Polimi	38.00	25.00	22.75
76	Male		Engineering Bachelor Degree	Polimi	33.50	23.25	22.75
77	Male	9/6/1985	MS.c	Polimi	26.00	20.00	20.00
78	Female	9/21/1988	MS.c	Polimi	34.00	31.75	25.50
79	Female	12/30/1980	MS.c	Polimi	33.50	22.75	28.25
80	Male	4/12/1988	MS.c	Polimi	33.50	24.25	14.75
81	Female	7/20/1988	MS.c	Polimi	30.50	26.75	18.75
82	Male	6/30/1986	MS.c	Polimi	27.50	22.25	16.00
83	Male	4/17/1988	MS.c	Polimi	36.00	26.75	31.25
84	Male	9/21/1989	MS.c	Polimi	32.00	24.25	28.50
85	Female	4/20/2014	MS.c	Polimi	27.00	26.00	21.50
86	Female	4/19/1991	MS.c	Polimi	30.00	24.25	25.50
87	Male	2/28/1987	Master of Computer Engineering	Polimi	27.50	26.00	27.25
88	Female	3/22/1987	MS.c	Polimi	30.50	17.50	20.00
89	Female	4/9/1989	MS.c	Polimi	28.50	26.75	18.50
90	Male	7/27/1987	MS.c	Polimi	29.00	21.25	22.50

91	Female	8/4/1989	MS.c	Polimi	30.50	32.50	21.75
92	Male	9/7/1988	MSc Telecommunication Engineering	Polimi	37.50	27.75	20.00
93	Female	3/21/1984	MS.c	Polimi	31.00	26.75	18.75
94	Male	12/2/1985	PhD student	Polimi	34.00	24.25	31.25
95	Male	5/29/1986	MS.c	Polimi	32.00	29.00	22.75
96	Male	3/16/1982	BSc	Polimi	25.50	18.25	22.50
97	Male	12/25/1987	ME	Polimi	28.50	22.00	31.25
98	Male	5/17/1983	MS.c	Polimi	30.00	22.50	19.75
99	Male	6/9/1988	MS.c	Polimi	33.50	28.50	25.50
100	Male	1/1/1982	PhD	Polimi	30.50	21.50	25.50
101	Male	11/4/1985	PhD student	Polimi	34.00	21.50	31.25
102	Male	3/4/1985	MS.c	Politechnika Warszawska	30.50	24.25	25.50
103	Male	8/30/1985	phd	politecnico di torino	33.50	19.00	20.00
104	Male	12/30/1986	MS.c	Politecnico di torino	30.50	21.25	23.00
105	Male	3/10/1987	MS.c	QIAU	37.50	26.75	21.75
106	Male	8/30/1979	Ph.D student	Ryerson	32.50	19.75	20.00
107	Male	8/21/1989	MS.c	Saarland University	28.00	18.75	25.50
108	Female	11/3/2014	BSc	Seneca	17.00	18.75	22.75
109	Female	12/19/1986	MBA	Sharif University of Technology	30.00	26.75	31.25
110	Male	8/28/1988	MBA	Sharif University of Technology	35.50	17.75	25.50
111	Female	10/1/1989	MS.c	Sharif University of Technology	35.50	23.50	20.00
112	Male	6/5/1985	BSc	shiraz	34.50	23.25	28.50
113	Female	2/11/1987	Sociology	Torino	25.00	18.00	13.00
114	Male	8/14/1986	PhD	TU/e	30.50	18.00	18.75
115	Male	12/30/1983	Phd candidate	University of Milan	41.00	23.25	22.50
116	Female	7/4/1990	Industrial Engineer	Universidad Del Norte	28.00	23.25	16.00
117	Female	3/22/1983	MS.c	Universita degli studi di Trento	34.00	25.00	22.75
118	Male	10/27/1990	Computer Science	Universita di Messina	34.00	20.75	15.75
119	Female	9/22/1989	PhD	University of Milan	34.00	19.00	25.50
120	Male	12/18/1987	Ph.D.	University of Milan	28.00	18.75	20.00
121	Female	8/21/1986	MS.c	University of Ottawa	31.00	18.75	18.50
122	Female	4/23/1987	MS.c	University of Tehran	24.00	18.25	21.50
123	Male	10/24/2014	BSc	zanjan national university	31.00	33.25	21.75
124	Male		MS.c		33.00	26.75	22.75
125	Female	10/31/1984	BSc		38.00	18.50	19.75
126	Female	11/2/1986	MS.c		39.00	22.00	31.25
127	Male		economics		28.50	22.25	25.50
128	Male	5/1/1988	Engineering		32.50	28.75	31.25
129	Female	9/18/2014	MS.c		35.50	21.25	25.50
130	Male		MS.c		40.50	26.25	22.75
131	Male		MS.c		36.50	36.25	28.25
132	Male		PhD student		28.50	16.00	20.00
133	Female	6/28/1987	MS.c		32.50	24.25	25.50
135	Female		MS.c		30.00	20.25	25.50
136	Male		BSc		30.50	17.00	21.50
137	Male	5/13/1986	Doctoral student		31.50	16.50	21.75
138	Male	6/8/1987	MS.c		31.00	25.25	24.50
139	Female	3/24/1986	MS.c		28.50	21.75	20.00

140	Female	9/16/1977	MS.c		31.50	24.25	25.50
141	Female	8/9/1982	PhD		37.50	28.50	22.75
142	Male	8/24/1975	Phd	Islamic Azad University	36.50	27.00	25.50
143	Female	2/17/1983	Master in Management Engineering	Polimi	29.50	19.00	16.00
144	Male	5/17/1983	Master of sceince	Polimi	30.00	22.50	19.75
145	Female	4/23/1987	Master	University of Tehran	24.00	18.25	21.50
146	Male	6/9/1988	Master	Polimi	33.50	28.50	25.50
147	Female	8/25/1984	Master	Of Iran	25.50	19.00	24.25
148	Female	8/6/1987	master	Polimi	37.00	28.50	21.50
149	Male	11/9/1988	Master	Polimi	17.00	18.75	16.00
150	Male	1/3/1987	ms in electronics	Polimi	32.50	29.25	28.25
151	Female	10/9/1988	PhD	University Degli Studi di Milano	32.00	20.00	13.00
153	Male	4/11/1987	Master graduation	Polimi	23.50	19.00	13.00
154	Female	8/13/1984	bachelor	Polimi	39.50	23.75	21.50
155	Female	6/28/1983	Master degree	Polimi	35.50	28.25	22.75

Appendix 4. Data from Interview

ID	Lead Users	Innovators	Market Mavens	From Interview	Backpack	Cookies
14	27.50	16.25	27.25	Emergent Consumer	Reward	Reward
20	27.50	22.25	23.00	Lead User/Emergent Consumer	Intrinsic/Curiosity	Not Interested
21	32.00	25.00	25.50	Lead User/Emergent Consumer	Need/Curiosity	Not Interested
25	37.00	33.75	28.25	Innovator	Need/Reward	Reward
30	38.00	36.00	24.25	Innovator	Intrinsic/Curiosity	Curiosity
40	32.00	30.25	17.00	Innovator	Need	Curiosity
41	35.50	21.25	18.75	Lead User	Need	Curiosity
44	28.50	18.25	20.00	Lead User	Intrinsic	Intrinsic
49	31.00	30.75	21.50	Emergent Consumer	Intrinsic/Curiosity	Not Interested
50	31.50	19.25	25.75	Market Maven/Lead User	Need/Reward	Not Interested
52	31.00	35.25	25.75	Innovator/Emergent Consumer	Intrinsic	Intrinsic
54	29.00	25.25	28.50	Market Maven/Lead User	Need/Reward	Reward
55	31.00	33.25	28.50	Innovator/Emergent Consumer	Need	Not Interested
57	34.50	32.00	28.50	Lead User	Need	Need/Curiosity
58	27.50	25.75	22.75	Lead User/Emergent Consumer	Curiosity	Not Interested
63	29.00	24.25	25.50	Lead User	Need	Not Interested
68	32.50	26.00	18.75	Lead User/Emergent Consumer	Intrinsic	Not Interested
84	32.00	24.25	28.50	Lead User/Innovator	Intrinsic/Curiosity	Need
89	28.50	26.75	18.50	Lead User/Emergent Consumer	Need	Need
91	30.50	32.50	21.75	Innovator	Need/Reward	Reward
97	28.50	22.00	31.25	Market Maven	Need	Curiosity
109	30.00	26.75	31.25	Market Maven/Lead User	Need/Reward	Need
110	35.50	17.75	25.50	Lead User/Emergent Consumer	Intrinsic/Curiosity	Need
123	31.00	33.25	21.75	Innovator/Emergent Consumer	Intrinsic/Curiosity	Not Interested
126	39.00	22.00	31.25	Market Maven/Lead User	Need	Not Interested
130	40.50	26.25	22.75	Lead User	Intrinsic/Curiosity	Reward
137	NA	NA	NA	Market Maven	Need/Reward	Reward
139	28.50	21.75	20.00	Lead User	Need/Reward	Not Interested
142	36.50	27.00	25.50	Lead User	Need/Reward	Reward
154	39.50	23.75	21.50	Lead User	Need/Reward	Not Interested
NA	NA	NA	NA	NA	Not Interested	Not Interested
NA	NA	NA	NA	NA	Need	Not Interested