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Roles and Resource Contributions of Customers in Value Co-creation

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ABSTRACT

Acknowledging and incorporating customers' skills and competencies has enabled businesses serve their customers more effectively and efficiently. Customer empowerment through adoption of modern technologies has further accelerated the process of joint value creation between firms and their customers. This article aims to determine the various roles played and resources contributed by customers in the co-creation of value. This study looks upon the various forms of value co-creation from the customer's perspective while elaborating on the various resources contributed by the customer and presents a conceptual framework of value co-creation. Both academics and practitioners could learn from behaviours displayed by customers in each of their roles and manage them accordingly.

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1. Introduction

Value, in recent times, has emerged as a subject of great deliberation by academics and practitioners alike. Such is its importance that Marketing Science Institute (MSI 2010, 2012) included value in its top research priorities for two consecutive terms during the years 2010-12 and 2012-14. The importance of value has also turned it into one of the most overused and misused terms in management and social sciences literature (Khalifa, 2004). Despite various explanations and connotations available, the concept of value still remains elusive owing to its multidimensional nature. The study on value has witnessed a gradual shift in direction: conventionally, it was believed that value was created by the firm and flowed towards the customer, but recently, it has been recognized that creation of value is actually a joint value creation process that occurs between the customer and firm. This transition clearly emphasizes the growing importance of customers - conventionally thought of as passive recipients of value, and their resource contributions towards value creation. Vargo and Lush (2004) in their initial premise asserted that customers were the sole creators of value (FP₆) and the role of the enterprise was restricted to delivery of value proposition (FP₇).

Early literature on management and economics considered the customer a utility seeker, for whom value symbolised a trade-off between benefits gained and sacrifices made during transactions (Zeithaml, 1988). Limiting value to the utility perspective ignores various other important hedonic dimensions deemed important by the customer. In addition to lower prices, the customer also seeks moments of thrill, enjoyment, fun, pride and experiences which account for the increase in his consumption. The concept of value underwent sea changes with the advent of service-dominant logic. The emergence of service as a fundamental basis of exchange has offset the traditional good-dominant logic of marketing. Vargo and Lusch (2004) in SD logic propose that goods are merely appliances for rendering services, and the firm should incorporate the voice of their customers for co-creation of value to achieve customer satisfaction and loyalty. Refuting customisation as a process of creating value for the customer, Grönroos (2011 p.282) insists on value creation as "a process through which user becomes better off in some respect or which increases the customer's well-being".

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Various distinct and unique forms of co-creation such as co-production, co-innovation, co-development, co-ideation and experience creation have been deduced from value co-creation literature. The boundaries seem to be blurring, as various co-creation processes could be part of any single co-creation process or it could, in itself, be a standalone process. For example, the co-innovation process itself encompasses various other forms of co-creation such as co-ideation, co-development, co-selection, co-testing and co-launch. Success of any co-creation process significantly depends on the role of the customer and the types of resources contributed to the value co-creation process; the customer being the core of any co-creation activity and his participation and contribution deciding the type of outcome from the process.

Active customers are paramount for any kind of value co-creation and this article deals with two important questions in co-creation: First, what, according to extant literature, are the different roles for the customer to play in the value co-creation process? Second, what kind of resources do customers contribute towards the value co-creation process? Answers to these questions could help in enumerating the responsibilities of customers in value co-creation. Existing studies on value co-creation look upon different roles of customers individually, and consider them mutually exclusive while the author considers these roles to be complementary to one another and not mutually exclusive. Since extant literature on value co-creation has focused on the firm's perspective, this study focuses on the customer's perspective. Firms have long been referred to as value creators in management literature by various authors. This overt and outright focus on the firm has resulted in negligence of the most important stakeholder - the customer for whom the whole activity is undertaken. While briefly addressing the role of firm, this article focuses on customers thus striking a balance between the objectives and scope of the article. The next section lays out the structure of the article while giving reasons for the divisions thus formed.

The aim of this article is to review the expanding literature on the roles and resource contributions of customers in value co-creation and subsequently present the various research questions that still need to be addressed. To achieve the objectives set in the article, numerous definitions offered by different authorities on value co-creation are presented. Next, the various roles that customers jointly assume with firms in the value co-creation process are illustrated. The author aims to elaborate the value co-creation process by giving a detailed explanation of the various resources exchanged between the firm and the customer. To conclude, different research streams are identified and future research opportunities are discussed for each topic covered under the conceptual framework.

2. Value co-creation and importance of customers

2.1. Defining Value co-creation

Creation, communication and delivery of value are identified as the primary activities of any firm. Value is defined as the “capacity of goods, services or activity to satisfy a need or provide a benefit to a person or legal entity” (Haksever, Chaganti & Cook, 2004, p.292). Studies on value began with the study of added value, followed by value chain analysis, superior value, perceived value, relationship value, stake holder value and value in-use (Payne and Holt 2001; Wodruff 1997; Sánchez-Fernández and Iniesta-Bonillo, 2007). Nevertheless, studies on value creation and co-creation are still fragmented.

Various perspectives have been considered by authors to study value co-creation. The different perspectives outlined are: management perspective (Prahalad and Ramaswamy, 2000 2004b; Jaworski and Kohli 2006; Etgar 2006 2008; Nambisan and Baron, 2009; Payne, Storbacka and Frow, 2008; Ramaswamy, 2009; Ramaswamy and Gouillart, 2010) marketing perspective (Prahalad and Ramaswamy, 2004a; Ballantyne and Varey, 2006; Payne et al. 2008; Cova and Dalli, 2009; Gummesson and Mele, 2010; Salloum et al., 2014; Salloum and Azoury, 2012; Hatch and Schultz, 2010; Grönroos 2011; Witell et al., 2011), Service logic and Service Dominant Logic (Vargo and Lusch 2004; Edvardsson, Tronvoll and Gruber, 2011; Vargo, 2008; Ballantyne and Varey, 2008; Cova and Salle, 2008; Dong, Evans and Zou, 2008; Maglio and Spohrer, 2008; Bolton and Saxena-Iyer, 2009; Ferguson, Paulin and Bergeron, 2010), Design Logic (Brohman et al. 2009, Sanders and Stappers, 2008; Lee 2008; Nenonen and Storbacka, 2010; Kohler et al., 2011; Mukhtar 2012), Innovation and New Product Development perspective (Prahalad and Ramaswamy, 2003; Sawhney, Verona and Prandelli, 2005; Franke and Schreier, 2008; Michel, Brown and Gallan, 2008; Romero and Molina, 2009; Tanev, Knudsen and Gerstlberger, 2009; Nambisan, 2009; Bowonder et al., 2010; O'Hern and Rindfleisch 2010).

Various definitions of value co-creation from various disciplines and perspectives such as Marketing, Service, Interaction, Design, Innovation and NPD have been discussed in management literature. Kambil, Ginsberg and Bloch (1996) were the first ones to coin the term ‘value co-creation’ for emphasizing the role of customers in business strategy and marketing. But the term was popularised and disseminated by Prahalad and Ramaswamy (2000 2004a 2004b), who conceptualised value co-creation as the “co-creation of personalised experiences with the customers”. Instead of focusing only on the offering, organisations should emphasise on experiences at the multiple points of exchange as the basis of value co-creation. Table 1 contains numerous definitions of value co-creation synthesised from various authors.

Table 1- Various definitions of value co-creation

Authors	Value co-creation definition
Gronroos and Voima (2013)	“[...] refers to customers’ creation of value-in-use where co-creation is a function of interaction.”
Roser <i>et al.</i> (2013, p.23)	“[...] an interactive, creative and social process between stakeholders that is initiated by the firm at different stages of the value creation process.
Ind & Coates (2013, p.92)	“[...] as a process that provides an opportunity for on-going interaction, where the organization is willing to share its world with external stakeholders and can generate in return the insight that can be derived from their engagement.
Lambert & Enz (2012, p.1601)	“[...] as a three phase cycle comprised of (1) joint crafting of value propositions, (2) value actualisation (3) value determination.
Gronroos (2012, p.1523)	“[...] is a joint collaborative activity by parties involved in direct interactions, aiming to contribute to the value that emerges for one or both parties.”
Edvardsson <i>et al.</i> (2011, p.327)	“[...] is shaped by social forces, is reproduced in social structures, and can be asymmetric for the actors involved.”
Gummesson & Mele (2010, p.190)	“[...] is enabled by Actor 2Actor (A2A) involvement and commitment. It is a time-based process which simultaneously comprises parallel and sequential phases.”
Xie <i>et al.</i> (2008)	“[...] Prosumption as value creation activities undertaken by the consumer that result in the production of products they eventually consume and that become their consumption experiences.”
Zwick <i>et al.</i> (2008, p.184)	“[...] as a set of organizational strategies and discursive procedures aimed at reconfiguring social relations of production, works through the freedom of the consumer subject with the objective of encouraging and capturing the know-how of this creative common.
Payne <i>et al.</i> (2008, p.84)	“[...] process involves the supplier creating superior value propositions, with customers determining value when a good or service is consumed.
Wikstrom (1996, p.362)	“[...] is company-consumer interaction (social exchange) and adaptation, for the purpose of attaining added value.”

2.2 Importance of customers in value co-creation

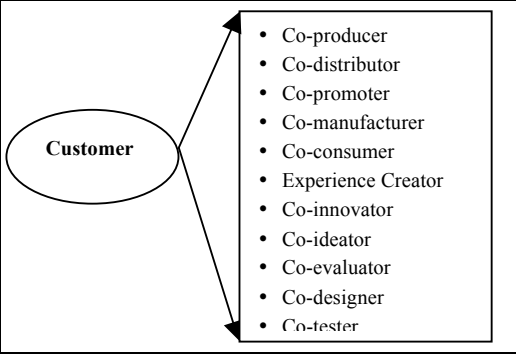
From the very beginning, customers were seen as an inseparable part of service creation and delivery (Lovelock and Young, 1979; Bitner *et al.* 1997). Services with high credence quality have greater customer involvement than those on the search and experience dimension. Hilton Hughes, and Chalcraft (2012) argued that customer involvement in value creation can vary from being optional to being mandatory. Recent service dominant logic proposed by Vargo and Lusch (2004) has brought goods also within the ambit of services by considering them to be appliances for distributing services. Historically, the role of the customer has been considered from various perspectives such as a personal resource (Mills and Morris, 1986), human resource (Bowen, 1986), productivity enhancer (Fitzsimmons, 1985; Goodwin, 1988; Dabholkar, 1990; Lengnick-Hall, 1996) and employee (Mills and Morris, 1986; Bowers, Martin and Luker, 1990; Kelley Donnelly and Skinner, 1990; Dong *et al.*, 2008). Only recently has the focus shifted on viewing the customer as a source of competence (Prahalad and Ramasawamy, 2000; Sawhney and Prandelli, 2000; Vargo and Lusch 2004) and as equity (Ranjan and Reed, 2014).

Lengnick-Hall (1996) identified four roles of customers: resource, worker (co-producer), buyer and beneficiary (user). On similar lines, roles of customers were classified under three categories by Bitner *et al.* (1997): (1) productive resource (2) contributor to service quality and satisfaction, and (3) competitor. Customers are reservoirs of various operand and operant resources that can be actively used to create value. These resources are differentiated into social, cultural and personal resources (Arnould *et al.*, 2006; Baron and Harris, 2010). Even when customers fall short of certain resources they actively look upon their peers and firms to replenish their learning and knowledge (Hibbert, Winklhofer and Temerak, 2012). Grounded in service dominant logic, Bolhuis (2003) presented an interactive model of customer learning based on cognitive, emotional and volitional elements. Technology has played a revolutionary role in harnessing customer resources. Emergence of the internet and its role in the rise of social networking sites (Facebook,

Twitter, Myspace), customer generated content (videos, news, blogs, reviews, information), creation of freely distributed open source content (software, massive online open learning) has bridged the distance between customers around the world. The rise of the World Wide Web and access to information has shifted the balance of bargaining power in favour of the customers (Zwass, 2010). It has accelerated the open source and value co-creation movement.

The customer as an active player in value co-creation could enhance the efficiency and effectiveness of the value co-creation process. Value obtained through co-creation could help satisfy customers and simultaneously benefit firms (Maglio et al., 2009; Edvardsson et al., 2011). Even in the case of a service failure, the involvement of customers in the recovery process could enhance customer satisfaction and encourage repeat purchases (Dong et al., 2008; Roggeveen, Tsiros and Grewal, 2008). Better product quality (Füller, Hutter and Faullant, 2011), greater customer satisfaction (Nambisan and Baron, 2007) and reduced risk for the firm (Maklan, Knox and Ryals, 2008) are the key benefits of co-creating value with the customer (Roser, DeFillippi and Samson, 2013).

Table 2- Value Co-creation Process

Role Understanding	Exchange	Outcome
 <ul style="list-style-type: none"> • Co-producer • Co-distributor • Co-promoter • Co-manufacturer • Co-consumer • Experience Creator • Co-innovator • Co-ideator • Co-evaluator • Co-designer • Co-tester 	<ul style="list-style-type: none"> • Interaction • Resources <ul style="list-style-type: none"> • Operand • Operant 	<ul style="list-style-type: none"> • Value • Experiences • Satisfaction • Learning
<p>Firm → Facilitator</p>	<ul style="list-style-type: none"> • Resources <ul style="list-style-type: none"> • Operand • Operant 	<ul style="list-style-type: none"> • Economic gain • Customer insight • Customer feedback • Customer loyalty

Integration of customers is not an easy task and firms are bound to face challenges. Heterogeneity of customers, defining jobs of customers, selection and recruitment of customers and managing the customer mix in co-creation are the key challenges that organizations face. Once the importance of the customer in the value co-creation process is established, the author seeks to determine the various roles played by the customer in the process. Subsequently, the study looks into different resource contributions made by customers towards value co-creation. A framework is presented in Table 2 to specify various roles played by customers in value co-creation process made by them. Each of the roles performed by customers is explained later in depth.

3. Findings

3.1. Customer roles in value co-creation

Once customers are identified as the most important stakeholders in value co-creation, the key questions that arise are about their jobs and responsibilities in the process. The roles and responsibilities of customers specify that along with the consumption of the offering, the customer has also to work for the creation and delivery of the said offering. Bowen, (1986) and Mills, Chase and Margulies (1983) argue that if the customers have clarity about their expectations while others have a way to meet those expectations, they can be successfully integrated into the value co-creation activity. The most recent roles scripted in value co-creation are those of: co-innovator, co-ideator, co-producer, co-designer, co-developer and co-promoter. The various roles of customers enumerated in value co-creation literature are specified below.

3.1.1. Customer as a co-producer

Co-production is deemed to be the earliest form of co-creation, started for involving customers in the production process. Initially, customer

involvement in the production process was limited to the service industry but Quintana (1984) and Ramirez (1999) were pioneers in championing the concept of co-production, with respect to manufacturing industries and the international market. It is defined as customer participation in production and the delivery of services within the boundaries defined by the organisation (Bolton and Saxena-Iyer, 2009; Bendapudi and Leone 2003). Customers today are demanding a more dominant role in customisation of the firm's offerings (Bendapudi and Leone 2003; Firat, Dholakia and Venkatesh, 1995). They are actively helping firms improve their value propositions and serve their customers better (Kambil et al., 1996, Prahalad and Ramasamy 2004a). Customers as co-producers are enhancing productivity gains (Mills et al., 1983; Lovelock and Young, 1979; Fitzsimmons, 1985), reducing cost and improving quality (Lengnick-Hall, 1996), acting as partial employees (Kelley et al., 1990; Bitner et al., 1997; Norman and Ramirez, 1993) and do it yourself customer (Bateson, 1985; Nuttavuthisit, 2010).

Interaction among customers and development of the socialisation process have resulted in the co-production of socially accepted behaviour. Behavioural change counselling activities such as drug avoidance and smoke cessation were achieved successfully through the integration of co-production strategies (Guo et al., 2013). Use of self service technologies (SST) is another example of induction of customers into co-production behaviour. Speed, control, reliability and ease of use in SST has enabled customer participation without any glitches. Internet has also revolutionised the co-production arena by bringing information and various other social and economic resources in close proximity. The customer as a co-producer is involved in designing, developing and delivering value proposition. Etgar (2008) in his conceptual framework delineated five stage models for involving customers in the co-production process. Vargo and Lusch (2004) in their foundational premise (FP9) insist that each and every resource integrator is a social and economic actor, which means that customers and firms collaborate on various points to co-produce value. Some of the other roles implicit in co-production are those of co-distributor, co-promoter, co-experience creator etc.

3.1.2. Co-distributor

Distribution represents the bidirectional flow of goods, services and information between the firm and customers. Firms have been entrusted with the long-time responsibility of distributing goods and services to their customers while standing at the receiving end of the value chain with various intermediaries in between (Etgar, 2008). In his work on value chain, Porter (1985) enunciates value addition to be a linear process, where value is added at every step. However, recent dynamic perspectives of networks and services disapprove of the concept of linearity in the supply chain. Insisting on non-linearity, the concept of network holds customers and the firm as resource integrators who are in a constant phase of interacting, connecting, sharing and learning from each other (Gummesson, 2004).

The involvement of customers in distribution was undertaken in services to tailor them according to individual customer needs. Self service as a tool is frequently used by restaurants, retail outlets and the banking industry to cut down on their cost element and incorporate customers in the co-production process. Technology has played a major role in connecting customers with producers in the distribution process. The internet and self -service technologies are creating a huge impact on the supply chain and logistics of the firms and offering differentiated value propositions to their customers (Rahman, 2003). The emergence of SD Logic has diminished the difference between goods and services. Co-distribution in the case of services is slightly different from that of goods as customers are involved in service delivery through the self-service mechanism. Customers as co-distributors help a firm by relieving it of extra responsibilities and help transfer benefits to the customer in the form of reduced prices.

Normann and Ramirez (1993) make inferences about the case of IKEA, where the involvement of customers as co-distributors and assemblers helped in keeping its costs low. Still many goods are distributed through traditional channels but the advancement of e-commerce websites and safe payment channels have started changing the conventional structures and dynamics (Rahman, 2004b). The customer as a co-distributor of goods and services is shifting from its pre-defined role in the value chain and is reconfiguring a new value constellation.

3.1.3. Co-promoter

Customer evangelism has started posing a threat to the long cherished traditional medium of communication. The effort of keeping their brand on top in the minds of customers has resulted into bombarding customers with massive advertising and communication programmes. Instead of creating awareness and achieving recall, this bombardment has resulted into building up of confusion and suspicion within the customers. The rising level of doubts and disengagement has rendered the customer inert and resistant to the mass-media campaign. This has increasingly turned the customer into a self-promoter, reviewer or brand evangelist. Customers are becoming more vocal in propagating the experiences of the service and goods they consumed. The advent of social media has enabled the customers to share their experiences and even vent out their anger for poor customer service or service performance. Word of mouth of customers is influencing the behaviour of other customers even at far away distances. Firms have started taking measures to engage their customers, develop stronger relations and prevent negative word of mouth (Zwass, 2010).

Socially rich and interactive dialogues between the firm and its customers could increase the success of the product (Gruner and Homburg, 2000;

Lundkvist and Yakhlef, 2004). The information furnished by customers to their fellow customers in the form of suggestions and ideas has inspired firms to invite and involve customers in their brand promotion programmes. Customers are turning themselves into brand protagonists if satisfied with the offerings of the company and expressing their satisfaction to their peers, friends and family. The American presidential election campaign led by Barack Obama greatly relied on customer created and communicated publicity material, blogs and music videos (Nuttavuthisit, 2010). Customers as co-promoters can greatly increase the effectiveness and efficiency of marketing programmes, thus enabling the creation of long term relationship values.

3.1.4. Co-manufacturer

Co-production has opened new avenues for customers to collaborate and participate. One such avenue is manufacturing. Customers with their rich micro competencies and skills are acting as active collaborators and participants for creating value, both for themselves and for others (Vargo and Lusch 2004). The rise of the internet and the World Wide Web has paved multiple ways to incorporate customers as co-manufacturers. Customer created content such as news, ideas, blogs and home videos is now being liked, shared and distributed amongst the masses with the firm acting as a facilitator. The emergence of blogs, Wikipedia, and YouTube are some of the examples which have been instrumental in introducing the customers to the power of innovation and experience. All of them have greatly helped in bringing customers together, enabling them to share their knowledge and learning.

The customer as a co-manufacturer is not only producing innovative designs, software and content, but also vicariously experiencing other peoples' experiences and giving such experiences personal meaning. Zwass (2010) held that digital and non-rival goods, which could be consumed globally by anyone without restricting others' ability to consume them, dominated the co-creation panorama in e-services. Yet, much is required to address the issues in co-manufacturing when it comes to identifying the right supplier and maintaining quality of content. Integration of the customer as a co-manufacturer can again create intellectual property rights issues. Ways to distribute benefits to customers as co-manufacturers still need to be ascertained. Many firms involve their customers in co-manufacturing to customise their product according to the need of the customer and then charge a high premium on it. Strategy seems to work on a select group of customers but its application in the mass market is still uncertain. Customers as co-manufacturers are very evident in the high number of e-service activities. This practice is to be extended to other sectors as well.

3.1.5. Co-consumer

The consumption process in co-production presents an opportunity for the customer to create meaning, experiences and value for oneself as well as for others. Etgar (2008) states that consumption is a process with three sub stages: pre-use, during-use and post use consumption phase. The consumption process inherently contains deep social, cultural and psychological meanings which are co-created with information processing and mutual learning through training and education. The pre-use consumption phase involves mutual identification of the customer and firm as actors in the process. In the during-use consumption phase, the customer as a practitioner creates value by following conventional practices while simultaneously introducing new ones. The post-use consumption process comprises the experiences undergone by the customer, and the sharing of those experiences with fellow customers after consumption. Experience sharing can help a large number of brands, customers and online communities in selecting the best amongst a plethora of choices available at the market place.

3.1.6. Customer as experience creator

Organisations spend millions of dollars to achieve customer satisfaction and repeat patronage of their customers. Despite extensive efforts put in, customer satisfaction is only getting harder to achieve. Increasingly informed, connected, empowered, pro-active and complex customers are pushing firms to break free from their traditional manufacturing mindset of exchange value as the locus of value creation. Interaction has emerged as a locus of exchange and experience, as co-created value (Prahalad and Ramaswamy, 2004; Bolten and Saxena-Iyer 2009). Based on the means-end theory, Woodruff (1997 p.142) argued that "value stems from customers' learned perceptions, preferences, and evaluations" opposing the view that value is embedded in market offerings while emphasizing customer desired use-situation, he suggested that value was a means to achieve initially, attribute based satisfaction and finally, goal based satisfaction".

Customer experiences are denoted as phenomenological experiences in service dominant logic, customer culture theory and interpretative research (Helkkula, Kelleher and Pihlström, 2012; Vargo and Lusch 2004; Arnould et al., 2006; Arnould and Thompson, 2005). In their service dominant logic Vargo and Lusch (2004) emphasised two types of value: one as value-in-exchange and the other as value-in-use. Value-in-exchange is the value produced through the exchange of goods with money as the medium of exchange. SD logic insists that it is not the good or the product that creates value for the customer; rather, it is the services rendered by the product, referred to as value-in-use. The value-in-use, in an actual sense is the experience gained through consumption (Grönroos, 2008; Woodruff and Flint, 2008). Grönroos (2008, 2011, 2012) further emphasises that the customer always creates value and it is the responsibility of the firms to collaborate with customers to co-create value. Firms can collaborate with customers in the domain of consumption by generating richer experiences for them and in return benefitting by gaining access to their latent perceptions and preferences, and capitalizing on them.

Many authors have described the role of the customer in experience creation as a form of customer exploitation (Zwick Bonsu and Darmody, 2008; Cova and Dalli, 2009) but others such as Zwass (2010) along with Jaworski and Kohli (2006) termed it a reductionist view. Realising customers as experience creators, organisations should find out various ways to enhance customer experience. Knowing about customer experiences, whether favourable or otherwise, could help the firms in achieving customer satisfaction, and with satisfaction come loyalty, retention and profitability (Rahman, 2006). The customer as an experience creator could also assist the firm in developing and customising its offerings; tailored according to the nature of the customer. Garg, Rahman and Kumar (2011) insist on banking, education, retail, health-care and legal services as areas that need to pay more attention to the experiences their customers go through for long-term sustainability.

3.1.7. *Customer as an innovator*

Evolving needs, depleting sources of energy, empowerment of customers and interest in disruptive technologies have generated widespread interest in the innovation process. It has also become the most important tool for companies to differentiate themselves from others. The Organization for Economic Cooperation and Development (OECD, 1991 cited in Garcia and Calantone, 2002 p.112) defines innovation as “an iterative process initiated by the perception of a new market and/or new service opportunity for a technology-based invention which leads to development, production and marketing tasks striving for the commercial success of the invention”. Initially, the role of the customers was limited to mere submission of feedback during and after the consumption of offerings (product and services). The feedback thus received was later incorporated by the organisations to propose offerings tailored to the needs of the customers (Bogers et al. 2010).

Customer innovation can be used in the development of offerings (new product and service, processes and idea) along with marketing and delivery of offerings. Despite being relevant, the feedback system was unable to capture the desires and wants of customers which forced organisations to equip their customers with toolkits for innovation (Thomke and Hippel, 2002). In the words of Hauser, Tellis and Griffin (2000, p.688) “Successful innovation rests on first understanding customer needs and then developing products that meet those needs”. Rise in collective intelligence and open source innovation also exhibited widespread acknowledgement of customer knowledge and skills (Zwass, 2010). Referring to the role of the internet in fostering collaborative innovation, Sawhney et al. (2005) enunciate customer engagement as a way to tap into customer knowledge. The traditional definition of the role of customers as information providers for planning and development of products (Rahman, 2004a) is proving futile in capturing the actual sentiments of the customer, who is both producer and consumer at the same time, or a ‘prosumer’. (Toffler 1980 cited in Xie, Bagozzi and Troye, 2008). Von Hippel (2005, 1986) was the first to identify and stress upon the role of the lead user for sensing the pulse of the market through co-creation of opportunities. He even suggested that customers themselves start innovating in certain contingent situations (Von Hippel, 1976) and described it as customer active paradigm (CAP). Hauser et al. (2000) ask organisations to have a deep understanding of their customers’ needs and further develop those needs into viable solutions for successful innovation.

Deeper understanding requires intense communication with the customer, and is fundamentally the key to the success of new offerings (Gustafsson, Kristensson and Witell, 2012). Customer involvement in co-creation could be an autonomous initiative or a sponsored one on the behest of the organisation (Zwass, 2010). Both individual customers and the customer community have been viewed in literature as innovators. Co-innovation has been further developed into five “Co-s” model which includes co-ideation, co-valuation, co-design, co-test and co-launch (Russo-Spena and Mele, 2012). Each of them represents the specific phases of the joint innovation efforts between the customer and the firm.

3.1.8. *Co-ideator*

Idea generation is the first step in any innovation process. Earlier restricted to the firm, idea generation was done through brain storming sessions. Management teams were asked to submit novel briefs and ideas, which were further evaluated on various criteria. This process was called reactive market orientation. With the passage of time and acceptance of the customer as an active agent, the need for a pro-active customer oriented process has been reinforced. The acceptance of the view that any idea could come from any source has forced some of the organisations to open their organisational boundaries to the outside world, for the process of idea generation.

Customers and their communities, flourishing on the social media platform are easily turning into the source of co-ideation. Indeed, ideas submitted to the company sometimes come through company led initiatives while on various other occasions they come through initiatives undertaken by the customers themselves. The arrival of several concepts such as “collective intelligence” (Ebner, Leimeister and Kremer, 2009), “wisdom of crowds” (Surowiecki, 2004) and “crowdsourcing innovation” (Howe, 2008) has reinforced that customers and their communities could bring large scale innovation and creativity into the picture (Sánchez-González and Herrera, 2013). Few ideas submitted to the company have business potential, nevertheless, there are some that have the potential to turn into valuable propositions. Strong collaboration and exchange of ideas between the company and the customer could help encourage other customers to participate. Dell launched its IdeaStorm project to identify offerings and solutions required by their customers and were successful in tapping into approximately 400 ideas. Similarly, Frito-Lays chips, BMW, Threadless.com, Infosys and Starbucks invited ideas ranging from product ideas (design, colour, taste) to ideas on experience (location, ordering, store ambience and delivery) and ideas on involvement and engagement

(Brand communities, Virtual communities and social responsibilities) from the customers (Russo-Spena and Mele, 2012).

Role of technology, especially the social network revolution has helped companies bridge the gap between the customer and the company (Russo-Spena and Mele, 2012; Hoyer et al., 2010). Such is the impact of social media that almost every company today is having its own social media page to forge stronger relationships with its customers and to tap into ideas from its customer base. Many companies run various contests based on ideas and design to invite their customers to present innovative ideas. Some of the companies even provide various resources such as toolkits, software and beta versions freely to upgrade customer skills and knowledge and increase customer participation in the co-ideation process (Von Hippel, 2001; Roser et al., 2013).

3.1.9. Co-evaluator

Ideas once submitted through the co-ideation process undergo evaluation for judging their value potential. Evaluations are initially performed by a closed management circle and are later opened for customer evaluation. Various contests that involve voting for the most popular photo and t-shirt and purse designs through active posting of comments are also held. A higher number of votes to any idea, product or service represents the majority's appreciation towards it. Customers as co-evaluators enjoy being part of the evaluation process along with the firm's representatives. It also generates free publicity and word of mouth by turning customers into brand ambassadors of the firm while they spread the idea within their social circles and further ask their friends and family members to join the evaluation process in favour of a particular idea (Füller et al., 2011; Russo-Spena and Mele, 2012).

Customers as co-evaluators are to be handled with extreme care as they can bring along negative word of mouth for the company along with free publicity. The customers, if unconvinced with the decisions taken in any contest could bring bad reputation by posting their resentment in the form of constant negative comments and feedback on social media sites and blogs. They may even encourage their friends and family to do the same. That is why many firms keep some degree of control in their hands to prevent the co-evaluation process from getting derailed. The best way to keep the co-evaluation process smooth is to establish a set of well-defined and transparent rules that are clearly explained to the participants.

Ideas developed through co-evaluation are not always meant for action. These ideas are further analysed on cost-benefit basis and tacit knowledge of the firm. The most important point that emerges from the customer being a co-ideator is the fact that the firm understands the tastes and preferences of the customer regarding a popular idea and could plan its future value proposition accordingly.

3.1.10. Co-designer

Customers as co-designers are a part of the process that requires the integration of their product knowledge for realising the physical product (Von Hippel, 1988; Piller and Walcher, 2006). The customer as a co-designer acts as a collaborator in different types of co-design environments such as architecture and software system design (Ulrich, Anderson-Connell and Wu, 2003). Co-design is mostly referred to as the customization of products or services with the help of customers (Franke and Piller, 2003 2004; Franke and Schreier 2002; Wikström, 1996). Piller and Walcher (2006) insisted that co-design strategy be a pre-requisite to mass-customisation strategy; they recommended a collaborative customer co-design environment instead of a one to one relationship.

Few customers can be co-designers since co-designing needs a lot of physical, social and cultural contribution from the parties. Therefore firms have to look for those customers who can help in transforming well evaluated ideas with potential into affordable solutions. Co-designer customers need to interact immensely with firms. The firms, on their part, have to look for different ways to sustain their customers in the co-designing process. Co-designer customers need to have wide experience and specific knowledge to be able to help the firm with most of the new product contents or design. The category of co-designers is usually smaller as compared to the number of customers assisting in selecting designs to be finally adopted by the firm (O'Hern and Rindfleisch, 2010).

The advantages of co-designed solutions are two-fold: one, the product is a better fit as compared to the standard product and two, it gives a sense of satisfaction to the customer because of the customer's involvement in designing the solution according to his need. Co-design can also lead to a rise in the prices of goods, higher risk and uncertain buying situations. Many companies such as Nike, Lego, userstools.com, American Eagle etc. have started involving their customers in the co-design process (Piller and Walcher, 2006).

3.1.11. Customer as co-tester

Customers as co-testers are involved in the testing of new offerings prepared to be launched in the markets in the near future. Feedback on offerings could help firms further enhance and upgrade the features and attributes of the market offering. Involvement of customers as co-testers can increase the odds of product success. Even when a product is new to the market, firms are looking for lead users, who can identify their need for a particular offering

much earlier than others (Kaushik and Rahman, 2014). The involvement of these lead users could help the firm gain quick promotion through word of mouth.

Volvo XC90 customer involvement project was launched by Volvo cars to understand their target customers and help the project team imbibe the associated contextual information. The project led to further improvements in market offerings by tapping into the tacit preferences and knowledge of the customers and getting publicity among users through their participation (Dahlsten, 2004; Roser et al., 2013). Technology has played a significant role in involving customers in various stages of innovation. The involvement of customer's right from ideation to the testing phase is realised through development of virtual customer involvement platforms such as discussion forums, online brand communities and prototype labs (Nambisan and Baron, 2009). The customer as a co-tester is engaged by many industries such as automotive, software, video-games and fashion. Gaining access to customer competence through deep interaction with them is the major reason behind a firm's initiative to involve the customer as co-tester (Pralhad and Ramaswamy, 2000).

The above classification of customer roles is an attempt to systematically present the various roles of customers as enumerated in extant literature. Some classifications may have possibly been left out, which could be a possible limitation of this study as the author has tried to look into the most common and popular types of customer roles in value co-creation. The next section focuses on various customer motivations and the resources contributed by customers towards value co-creation.

3.2. Customer motivations and contributions towards value co-creation

The heterogeneity of customers and variability in their roles are key challenges for the modern enterprise. To maintain a continuous influx of customer inputs, organisations are allowing their customers to move from their current passive peripheral position to a more active central position. Keeping customers motivated to contribute is extremely vital and is a challenge for firms in any joint value creation activity. Firms are readily adopting newer strategies and technologies to engage the customer and maintain a lasting relationship with them. Many financial and non-financial motivators are constantly showered upon customers to keep them motivated and engaged. Much of the research has focused on the various underlying motivators behind customer contribution from the cost-benefit perspective. Previously held rational perspectives were some of the important reasons behind contributions. In addition, many social, psychological and cultural factors are also responsible for customer participation in co-creation.

3.2.1. Motivation behind customers' contribution in co-creation

The interactionist perspective suggested by Oreg and Nov (2006) identifies context and personality factors such as reputation, self-development and altruism as reasons behind an individual's motivation to contribute. Scholars around the world have tried to reveal motivators behind open source movement. Empirical investigations led by Hars and Ou (2002) show that various external factors such as human capital, self-marketing along with personal factors have greater weightage as compared to internal factors comprising joy of programming and community identification. (Hennig-Thurau and Walsh, 2003-4).

Enrique et al. (2013) asserted that social and communitarian factors are especially important in motivating people. Such is the impact of social and communitarian factors that many customers ignore even the financial incentives attached to the co-creation process (Zwass 2010; Phang et al., 2009). Studies conducted on electronic word of mouth (eWOM) show that social capital occupied the leading position in eleven set of motivators (Hennig-Thurau and Walsh, 2003-4). Satisfactory outcomes, a sense of belonging to the community and perceived fairness are the attributes looked for by members in any task requiring collaboration (Gebauer, Worch and Truffer, 2012). Hoyer et al. (2010) stress that "consumer-level motivators", "firm-level impediments", and "firm-level stimulators" are primarily responsible for the scope and intensity of co-creation.

Emphasising the benefits of being a motivator of customer co-creation, Nambisan and Baron (2009) in their empirical approach employed the uses and gratification model to identify various kind of benefits derived from customer participation in a virtual community. The four types of benefits identified by them were cognitive, social integrative, personal integrative and hedonic benefits. Zwass (2010) presented a detailed list of various motivators in his taxonomy of co-creation. Motivators enumerated by him range from purely altruistic in nature to the financial rewards implicit in co-creation.

3.2.2. Customer resource contribution

Research on customer resource contribution mostly focused on exploring underlying motives and reasons behind contributions. The author has tried to keep his focus on revealing different resources contributed by customers in joint value creation. Resources are defined as the "tangible and intangible entities available to the firm that enable it to produce efficiently and/or effectively a market offering that has value for some market segments" (Madhavaram and Hunt, 2008 p.68).

Vargo and Lusch (2004) in their fundamental premises observed two kinds of resources namely, operand and operant resources arguing that traditional good-dominant logic be based on exchange logic where goods as operand resources create value through exchanges. The first foundational premises (FP₁) by Vargo and Lusch (2004, p.6) mentioned that “the application of specialised skills and knowledge is the fundamental unit of exchange” thus indicating the importance of operant resources as a combination of skills, knowledge and competencies which when acted on operand resources, created value for the firm (Constantin and Lusch, 1994).

Co-creation of value in a service network requires the integration of both operand and operant resources from the provider as well as the customer, who are better known as resource integrators in service-dominant logic (Vargo and Lusch, 2004; Vargo, 2008; Edvardsson et al. 2011). The customer lives in the vicinity of neighbouring customers, communities and organisations. Proximity between actors leads to interpersonal relationships and development of social structures. Growth of interpersonal relationships largely depends on the exchange and sharing of resources amongst the resource integrators.

Foa’s (1971) resource-exchange theory classifies resources into six types of exchanges: love, status, information, money, goods and services. Referring to exchanges as an encounter process occurring on the behest of either the customer or company, or as a joint initiative of both, Payne et al. (2008) further stressed on exchange as the practices which comprised resources (such as money, product, work, information and time) exchange and collaborative practices exchange. Numerous customers, customer communities and firms are engaged in the co-creation of value and this engagement is further influenced by task contribution and social interaction (Finsterwalder and Kuppelwieser, 2011). Studies further enunciate that there is a significant influence of fellow customers on the contributions of any given customer. The customer receives two types of support from his fellow customers in value co-creation: first, socio-emotional support and second, instrumental support. Support received from fellow customers is the reason behind the customer’s own reciprocity and voluntary participation (Rosenbaum and Massiah, 2007). Elaborating on the role of customer contribution in a network, Gummesson (2008) defined it as a step towards ‘value actualisation’, built on the collaborative efforts of the supplier and the customer.

Arnould et al. (2006) detailed their classification of operant resources into physical, social and cultural resources, and that of operand resources as economic resources consisting of material objects and physical spaces, arguing that customers have certain life roles in different social contexts which have to be assumed through integration and establishment of fit between their own operant and operand resources as well as between the firm’s operand and operant resources. Both firms and customers are interdependent on each other for different operand and operant resources. Another classification of resources is presented by Maglio and Spohrer (2008) under four categories: (1) resources with rights (2) resources as property (3) physical entities, and (4) socially constructed resources. Thus people, technology, organisations and shared information constitute the critical contribution being made in the value co-creation process. Extending the previous work of Barney (1991) on resource classification, Madhavaram and Hunt (2008) proposed seven categories of resources which could be classified as operand or operant resources: (1) financial (2) physical (3) legal (4) human (5) organisational (6) informational, and (7) relational. They further define a hierarchy for operant resources - beginning from basic operant resources, moving up to composite and finally, interconnected operant resources (Paredes, Barrutia and Echebarria, 2014)

Exploring the literature on resources and building on classifications by Arnould et al. (2008) and Madhavaram and Hunt (2008), the author presents a schema of resources contributed by the customers and the firms. Table 3 presents various contributions made by the customers and the firms which are not mutually exclusive; instead many contributions of various resources are overlapping and could find a place under different resources.

Table 3- Various resources held by customer and firm

	Financial Resource	Physical Resource	Legal Resource	Human Cultural Resource	Organisational Cultural Resource	Informational Resource	Relational/Social Resource
Customer held resources	Money, Material Object, Physical Space	Energy, Emotion, Strength,	IP Right, Customer Protection Rights	Tacit knowledge, Status, Cultural Resources such as history and imagination	Skills, Knowledge and Personal values and belief	Feedback, Blogs, Reviews, Shared Information	Family relationship, Customer Communities, Commercial Relationship
Firm held resources	Offerings, Cash and Equity, Access to Financial Market	Plant, Equipment, Machine, Technology	Trademark, Copyrights, Licenses	Skills, Ideas, Competencies, and Knowledge of employees	Capabilities, Control, Policies, Culture	Marketing Intelligence	Relationship with supplier and customer

Each of the resources delineated in the framework needs a further in-depth study which is outside the scope of this study.

4. Discussion

This article investigates the roles and resources of the customers in value co-creation. Empowerment of customers and rise of interactive technologies have led to the acceptance of customers as both a resource and a resource integrator in the firm's value creating strategies and process. Most of the earlier work was limited to bringing forth different motivators responsible for value co-creation but a clear and well-defined role of customers was absent in value co-creation literature. The author exhibits a structured overview of the different roles played by customers in value co-creation literature. Roles of customers define the contributions of the actors in value co-creation and the degree of contribution rests on the co-creation environment and the expected co-created value to be achieved from the co-creation process. In the section ahead, the author presents his views on the roles of the customers and the various ways in which these roles influence the value co-creation process.

4.1. Overview of research on customers and value co-creation

Burgeoning literature on value co-creation exhibits the importance given to the subject of value and value co-creation by both the academic and the practitioner. Several factors have contributed to the wide spread acceptance of value co-creation, the prominent ones being the acceptance of services as primary activities, reduced costs, increased benefits, achievement of competitive advantage through customer satisfaction and loyalty and the acceptance of customers as value creating actors. As the research on value co-creation piles up by the day, the author has tried to give a systematic presentation of existing knowledge so that the present status of research in value co-creation with the customer as a pivotal point could be understood. Also, possible agendas for future research could be determined. Table 4 exhibit various directions of value co-creation research as enumerated by various authors

Table 4- Various classification of value co-creation

S.No	Author	Classification of value co-creation
1	Zwass (2010)	(1) Virtual Communities and social capital (2) Commons, open access (3) Collective intelligence (4) open innovation
2	Ind and Coates (2013)	(1) Literary theory (2) Participatory design (3) Collaborative innovation (4) Open source movement (5) Management Science (5) Participatory Design
3	Tenev et al. (2009)	(1) Management and strategic perspective (2) Innovation and New Product Development, (3) Service dominant and service Logic (4) Management and strategic perspective (5) Virtual customer environment
4.	O'Hern and Rindfleisch (2010)	(1) Co-designing (2) Collaborating (3) Submitting (4) Tinkering
5.	Russo-Spena and Mele (2012)	(1) Technology driven perspective (2) Customer driven perspective (3) Service driven perspective.

A review of customer roles and resource contributions reveals that despite the customer being the most important entity in value co-creation, most of the studies related to customers are limited to one or two customer roles in value co-creation. This makes the present study very important as it is an initiative to bring forth the customer roles in and resource contributions towards value co-creation for achieving desired outcomes. Varying degrees of research to study various specific relationships such as business-business, business-customer and customer-customer co-creation need to be conducted. Also, most of the research on value co-creation is a theoretical conceptualisation with empirical investigation yet to be done. More research remains to be done with respect to customer roles and how they are inherently related to the degree of contribution. Also, the role of motivational factors in moderating customer contribution must be further researched.

5. Research Agenda

The study of customers in terms of customer roles and the contributions made towards value co-creation brings out various findings which are worth studying as future research agenda, both for the academic as well as the practitioner. Recent studies on value co-creation literature reflect the growing interest of researchers in the conceptualisation of value co-creation in the form of theoretical presentations and conceptual framework. These studies still lack empirical validations both from dyadic and network perspectives.

The present study has tried to dig deep into value co-creation literature to extract the various roles performed by customers and their contributions towards joint value co-creation. The importance of customers brings fresh insight into various roles customers are playing in value co-creation and how their roles and contributions still need to be harnessed from various directions. The present section outlines the future research agenda to be pursued in value co-creation. The author believes that increased customer participation and involvement in joint value creation would bring about significant changes in the traditionally established structures and mind sets. Therefore future research agenda should take into account the effects that roles and contributions of customers would have on the four components of value co-creation which are: fellow customers, organisation, process and outcome.

5.1. *Effect on fellow customers*

Customers never exist alone in any process. They are always associated with fellow customers who are equally responsible for their motivations and resistance to participate in co-creation. For a firm that wishes to manage the customers participating in co-creation, it should also ensure that it manages these fellow participants in a reasonable manner. Fellow customers could be friends, peers, family and even strangers. Research should be pursued on how to persuade fellow customers to contribute resources when they are not contributing towards value creation? How the customer to customer interaction could amplify the individual contribution made by customer?

5.2. *Effect on organisation*

New roles and contributions of the customers in value co-creation have a lasting effect on the organisational culture and learning. An organisation is a group of people who work together to achieve a common goal. The behaviours and actions displayed by these people create an organisational culture. Earlier, customers were not looked at as part of an organisation. Only the people inside the organisational boundaries who assumed traditional sets of roles and responsibilities were entitled to be organisational entities. Organisational norms and rules were created for easy delegation of duties, enabling co-operation and co-ordination and preventing work place conflict. The opening of organisational boundaries for customers is bound to bring a change in organisational culture. Once the customer starts playing multiple roles and developing various competencies, he could turn into a potential competitor of the firm. Implementing quality management practices is always the responsibility of top management (Talib, Rahman and Akhtar, 2012), but the ways in which it could be sustained with the incorporation of the customers is an area worthy of study. Future studies regarding the roles and resource contributions of customers towards various kinds of value co-creation have to deal with the following questions:

- Who decides what role the customer would play? Would it be decided by the firm, the customer himself or the co-created environment?
- The involvement of the customer in the co-creation process would require that the customer be given powers and assigned responsibilities which earlier were assumed only by employees in a firm. How would role-conflicts arising between employees and customers due to clashes in jurisdictions and authorities be handled?
- What roles do market norms and social norms play in customer contribution towards value co-creation?
- How to motivate customers to participate in the learning process and how to design effective learning systems?

5.3. *Effect on Process*

Efficiency and effectiveness of any co-creation process rely on customer inputs submitted and outcomes processed. A highly efficient co-creation process would be an iterative process built on consistent support from both customers and firm. Proper metrics should be created and put in place to assess the effectiveness of a co-creation process. Organisations should find out ways to channelize effective resource integration. Technology would play a major role in enhancing the effectiveness of the process. Creation of prototypes and co-creation platforms could help in saving time and cost of the process. Future research should investigate the factors which could help retain customers in the co-creation process for longer durations. An effective co-creation process needs explicit but controlled contributions, so future research would have to address issues if the customers start showing opportunism in the co-creation process. Customers need to be involved and also evolve in multiple roles during the co-creation process but may show resistance to switching to different roles. So exploring new ways for firms to deal with customers who display inhibition and indifference towards switching to different roles is another future research area.

5.4. *Effect on outcomes*

The roles and contributions of customers are highly related to the outcomes of co-creation. More involvement of customers in their respective roles will lead to positive outcomes in the form of co-created value. Bendapudi and Leone (2003), in their studies, point out that if customers were not satisfied with the outcome of co-production, they would attribute it to the firm and if satisfied, they would like to take credit themselves. Whether participation of customers helps in increasing productivity is a matter of research. Out of many possible outcomes, two major outcomes of the co-creation process are relationship value and social capital. Future research should explore whether the relationship value as an outcome has any effect on quality and content of outcome. Effect of information (an outcome of co-creation process) on purchase intention and behaviour requires further exploration. In addition, compensation given to customers for their involvement needs further deliberation.

6 Implications for research

6.1. *Managerial implications*

This paper describes various roles donned by customers that supplement the resources contributed towards the co-creation process. Managers can

manage customers better and involve them effectively in the co-creation process if they get a deeper understanding of the different roles customers play during the process. A clear understanding of role dimensions, knowledge and expectations of customers could help managers segment their customers and serve them as per their preferences (Moller et al., 2013; Salloum et al., 2015).

Co-creation allows firms to have close connections with their customers which increases their involvement which in turn results in greater value offered. Thus, the role of front line employees becomes very important as they are the ones who interact with customers. Successful co-creation warrants that organisations provide clear information about roles customers are expected to perform along with the amount of control they hold in a particular setting. Managers and organisations must also find ways to keep their customers abreast of evolving technologies and manage them on technology enabled social media platforms. However, this requires a lot of introspection and retrospection on the part of the firm as many co-creation efforts in the past have evidently backfired resulting in negative publicity. The present study insists on customer training and education as prerequisites for harnessing the potential of the customers in any of the role being assigned to customer.

Managers should also make efforts to create memorable experiences for customers and any service recovery must be addressed through active customer involvement in the event of service failure. To forge long term relationships with customers, firms must strive to co-create trust (Kumar & Rahman, 2013) so that customers understand the risk and benefits of involving and engaging in the value co-creation process. In the long run, value co-creation could lead the firm towards gaining a competitive advantage and the customer towards greater satisfaction, thus proving a win-win proposition for both.

6.2. Theoretical implications

A lot yet remains to be done as far as research on value co-creation is concerned because most of existing research on value co-creation is conceptual in nature. Although the number of empirical studies is rising, the subject demands greater in-depth exploration. Future research needs to examine each value co-creation role in more detail and determine ways in which organisations could incorporate these roles within their strategies to forge long term relationships with customers. The present study has not gone in details of customer communities and their role in value co-creation – this could be a potential area for further investigation. Researchers should also extend the present study to various service contexts (both offline and online) to get a more precise picture of customer roles in co-creation.

The framework provided in the study can be utilized for developing research hypotheses that could further be tested. Empirical analysis of each of the co-creation roles, various motivational drivers, barriers, pre-conditions and outcomes of co-creation are worthy of study. The present research is an attempt to explore how customers behave in various settings. Future research must integrate more mental and emotional customer processes in the co-creation framework.

This study focuses on various roles played by customers through which they can create value in association with firms, and highlights interaction and resource contribution as ways to enact the co-creation process. Conditions leading to voluntary and involuntary participation of customers might be studied further. Ownership of innovation in co-creation during discretionary and non-discretionary participation is also worthy of further investigation. Finally, co-creation roles adopted by customers as highlighted in the present study lead to various economic, psychological and social benefits thus creating reciprocal value for organisations. A detailed study to validate the same could be undertaken by researchers and practitioners.

7. Limitations

Like every study this study also has its limitations. First, the study was limited to the investigation of different roles and resource contributions of customers as explained in existing literature. Roles refer to the kind of roles customers play and contribution implies types of resources exchanged during the co-creation process. Roles of firms and their contributions were not pursued and they could form the basis of future research.

Another major limitation of the study was the scope of the article which was limited to different roles and contributions of customers and hence studies on various outcomes were out of the purview of this article. Various outcomes of the value co-creation process such as experiences, relationship value, new offerings (both product and services) need to be studied separately. The study also ignores literature written in languages other than in English.

Here introduce the paper, and put a nomenclature if necessary, in a box with the same font size as the rest of the paper. The paragraphs continue from here and are only separated by headings, subheadings, images and formulae. The section headings are arranged by numbers, bold and 9.5 pt. Here follows further instructions for authors.

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