

An Empirical Study of the Dimensions of Customer Value Co-creation Behaviour

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ABSTRACT

Customer value co-creation behaviour has become an integral part of the business organizations. Involvement of the customer in the service provider's delivery process leads to improved brand loyalty and value creation. The paper aims to analyze the two key dimensions of customer value co-creation namely customer participation behaviour and customer citizenship behaviour. Each dimension has four components. The study involves the detailed investigation of the respective eight components using Pearson's bivariate correlation and regression analysis. The developed regression models are tested using coefficient of determination. The results indicate that majority of the components are positively correlated but only three of them have significant association. These were used to develop regression models and only one model was found to be fit which can be further used for forecasting purpose. The study has valuable managerial implications wherein the service providers can utilize the results of the study to develop strategies for improving the association among the components of customer value co-creation behaviour. This would further help in forecasting the co-creation behaviour of the customer.

Key Words: Co-creation, value creation, correlation, regression, customer value co-creation behaviour.

Introduction

In spite of wide variety of choices today, the consumer still seems dissatisfied. Companies are making a plethora of investment in bringing more product options to differentiate themselves from their competitors. To meet this challenge, the managers are perpetually engaged in governing the themes of expansion and value creation. The sense of value and the process of value creation are rapidly shifting from a product or firm centric view to customized consumer experiences. Involving the customer in creating a value beneficial for the counter parties in the transaction is termed as Co-Creation. Aware, networked and involved consumers are immense value creators. The interface between the firm and the consumer is becoming the locus of value creation and is the subsequent practice in value creation.

Practitioners' and scholars' interest in the service-dominant logic of marketing has increased sharply in the last decade (Vargo Lusch, 2004). The core concept of service-dominant logic is that the customer is always a co-creator of value. As dynamic participants and mutual partners, customers co-create value with the organization through active participation in the entire service-value chain. Although previous customer behaviour literature has focused on the customer decision-making process regarding purchases, but on the contrary customers are not merely responders, they are rather active value creators (Xie, Bagozzi & Troye, 2008).

Limited studies have focussed on the dimensions of customer value co-creation behaviour. According to Bettencourt (1997), co-creation behaviour consists of many distinctive components. Some researches opine customer value co-creation to be unidimensional (Dellande, Gilly, & Graham, 2004; Fang, Palmatier, & Evans, 2008).

The objectives of the study are:

- To analyze correlation among the different dimensions of customer value co-creation using a pre-tested and validated scale developed by Youjae Yi & Taeshik Gong, 2013, which highlights two key dimensions – customer participation behaviour and customer citizenship behaviour. Each dimension has four components.
- To develop regression models using the components which have significant correlation.

Literature Review

According to C.K.Prahalad & Venkat Ramaswamy (2004), co-creation is the joint creation of value by the company and the customer. It allows the customer to co-construct the service experience, jointly define the problem and then involve in the problem solving process. The product may be the same but customers can construct different experiences and have active dialogue.

According to Kristensson et al. (2004), involving users as co-creators during NPD, produces ideas that are more creative, highly valued by customers, and implemented easily. Such customer co-creation during innovation processes appears to have become increasingly popular in recent years (Vargo and Lusch, 2004); however, there is a paucity of research on the theory and practice of user involvement during new product and service development.

In the Marketing Science Institute ranking of research priorities, the issue of "... ensuring customer-relevant innovation in all stages of new product/service development" is now on the top tier of all research interests (MSI, 2004; MSI Research Priorities 2006-2008).

Co-creation refers to collaboration with customers for the purposes of innovation and has become a foundational premise of the service-dominant logic (Lusch et al., 2007). Co-creation may be compared with the notion of customization (Prahalad and Ramaswamy, 2004). The difference between "co-creation" and "customization" lies in the degree of participation of the customer. The customer is said play a less active role in customization than in co-creation. In customization, the customer's role is almost constrained to the end of the innovation phase and involves making suggestions for incremental changes to a nearly complete archetype. In contrast, co-creation refers to the involvement of the customer right from the start of the innovation process.

According to the notion of co-creation, and the service-dominant logic, value can only be determined by the user during the consumption, usage and process (Michel et al., 2008; Lusch et al., 2007). The process of co-creation thus constitutes a more market-oriented perspective.

While customers are continuously collaborating with the companies, prospects occur whereby they can contribute to their experiences and feedbacks. Thus, the co-creation of value occurs as the customer mutually discovers latent needs with the company.

Dimensions of Customer value co-creation behaviour

Early research has identified two types of customer value co-creation behaviors:

- customer participation behavior, which refers to required in-role behaviour that is necessary for successful value co-creation, and
- customer citizenship behavior, which is voluntary extra-role behavior that provides unusual value to the company but is not necessarily required for value co-creation (Bove et al., 2008; Groth, 2005; Yi & Gong, 2008; Yi, Natarajan, & Gong, 2011).

Empirical evidence shows that in-role and extra-role behaviors follow different patterns and have different antecedents and consequences (Groth, 2005; Yi et al., 2011).

Customer participation behavior

Information seeking: According to Kellogg, Youngdahl, and Bowen (1997), customer seeks information to clarify service requirements and satisfy other cognitive needs. Customers are interested in knowing about the tasks performed by them as value co-creators. Information seeking is vital to customers as it reduces uncertainty and therefore enables customers to understand and control their co-creation environments. Also it enables them to bring perfection in their role as value co-creators and become incorporated into the value co-creation process.

Information sharing: Customers should provide information for use in value co-creation processes in order to make the value co-creation successful (Lengnick-Hall, 1996). Customers should provide required information to the employees and they in return meet their stated needs. The quality of co-creation depends hugely on the accuracy of information provided by the customer.

Responsible behavior: Responsible behavior tends to occur when the customers fulfil their responsibilities as partial employees (Ennew & Binks, 1999). Not only the employees but also the customer need to be mutual, the

one accepting the rules and policies and supporting as directed by the company. Unless customer shows responsible behaviour, the entire idea of adding value through co-creation can fail.

Personal interaction: It is the key towards successful co-creation which is possible when there exist a strong interpersonal relationship between the customer and the company employees. The entire communication happens at a very pleasant and friendly environment ensuring courtesy and friendliness for each other. It is in this positive atmosphere that guides the customer towards sharing ideas for real co-creation.

Customer citizenship behavior

Feedback: Feedback includes every piece of information whether it is solicit or unsolicited to be provided by the customers to the employee, which helps the firm to improve the service creation process in the long run (Groth, Mertens, & Murphy, 2004). Customers are the expert users of any product or service with their unique experiences. They are ones to offer the most appropriate suggestions and feedbacks.

Advocacy: Advocacy refers to recommending —whether the firm or the employee —to various associated people such as friends or family (Grothetal, 2 004). Advocacy points out company's commitment over and above customer's interest. The positive word of mouth publicity by the customer often leads to higher customer base backed by better reputation of the firm and promotion of products and services of the company. This is one of the voluntary behaviour that cannot be termed mandatory.

Helping: Helping denotes customer behavior wherein they assist other customers. In a service co-creation process, customers usually direct helping behavior at other customers rather than employees (Groth et al., 2004). While the role of an employee in any organization is to help the customers, the role of customer cannot be defined so. However, placing the customer in a manner that he can help the other customers thus displaying the sense of social responsibility often helps value. Customers at times help other customers out of empathy which is backed by their experiences about a product or a service.

Tolerance: Tolerance refers to patience a customer holds when the service delivery does not meet his expectations, as in the case of delays or shortages (Lengnick-Hall et al., 2000). One of the major reasons behind switching behaviours of customers is service encounter failure. Therefore, customer tolerance in such situations actually helps in retaining the customer base.

Exploratory Investigation

The current study aims at the youngsters within the age group 20-25 years. A sample of 100 is selected randomly and data is collected through the questionnaires. The data has been measured using a five point likert scale. The two key dimensions – customer participation behaviour and customer citizenship behaviour has been studied with respect to four components each. The descriptive statistics for the eight components is depicted in the following table:

Table 1: Descriptive Statistics

Components	Minimum	Maximum	Mean	Std. Deviation
Information Seeking	3	11	5.56	1.521
Information Sharing	4	11	6.09	1.564
Responsible Behaviour	3	10	5.79	1.789
Personal Interaction	3	10	5.97	1.977
Feedback	3	10	6.44	1.744
Advocacy	3	10	6.24	1.707
Helping	3	13	8.00	2.309
Tolerance	6	13	10.18	2.249

The descriptive statistics indicates that the components like tolerance, helping, feedback and advocacy are more critical in customer value co-creation behaviour. To analyze the inter-relationship among the various components, Pearson bivariate correlation has been calculated. The following correlation matrix depicts the association among various co-creation behaviour components:

Table 2: Correlation Matrix

Components	Information Seeking	Information Sharing	Responsible Behaviour	Personal Interaction	Feedback	Advocacy	Helping	Tolerance
Information Seeking	1	.284	.032	-.337	-.290	-.297	-.034	.192
Information Sharing	.284	1	.039	.060	-.092	.151	.143	.073
Responsible Behaviour	.032	.039	1	.264	.011	.473**	-.037	.303
Behaviour	-.337	.060	.264	1	.232	.406*	.438**	-.081
Personal Interaction	-.290	-.092	.011	.232	1	.269	.414*	.057
Feedback	-.297	.151	.473**	.406*	.269	1	.146	.218
Advocacy	-.034	.143	-.037	.438**	.414*	.146	1	-.082
Helping	.192	.073	.303	-.081	.057	.218	-.082	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Significant correlation is observed among the following components:

1. Responsible Behaviour and Advocacy
2. Personal Interaction and Advocacy
3. Personal Interaction and Helping
4. Feedback and Helping

Developing Regression Models

Regression models help us to develop a relationship among the associated variables on the basis of which forecasting can be done. The regression models have been developed using SPSS. The following regression models are developed among the variables which has significant positive correlation:

I. Responsible Behaviour and Advocacy

Responsible behaviour is taken as independent variable and advocacy as dependent variable.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.620	.900		4.022	.000
	Responsible Behaviour	.451	.149	.473	3.037	.005

a. Dependent Variable: Advocacy

$$Y = a + b X$$

$$Y = 3.620 + 0.451 X$$

II. Personal Interaction and Advocacy

Personal Interaction is taken as independent variable and advocacy as dependent variable.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.141	.876		4.729	.000
	Personal Interaction	.351	.139	.406	2.515	.017

a. Dependent Variable: Advocacy

$$Y = a + b X$$

$$Y = 4.141 + 0.351 X$$

III. Personal Interaction and Helping

Personal Interaction is taken as independent variable and helping as dependent variable.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.945	1.166		4.241	.000
	Personal Interaction	.512	.186	.438	2.757	.010

a. Dependent Variable: Helping

$$Y = a + b X$$

$$Y = 4.945 + 0.512 X$$

IV. Feedback and Helping

Helping is taken as independent variable and feedback as dependent variable.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.941	1.011		3.899	.000
	Helping	.313	.122	.414	2.571	.015

a. Dependent Variable: Feedback

$$Y = a + b X$$

$$Y = 3.941 + 0.313 X$$

Testing model fit using coefficient of determination (R Square)

Model I: Responsible Behaviour and Advocacy

The value of R Square is 0.712 which means that 71.2% variation in the dependent variable can be considered as explained variation due to changes in independent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.875	.712	.199	1.527

Model II: Personal Interaction and Advocacy

The value of R Square is 0.165 which means that 16.5% variation in the dependent variable can be considered as explained variation due to changes in independent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.406	.165	.139	1.584

Model III: Personal Interaction and Helping

The value of R Square is 0.192 which means that 19.2% variation in the dependent variable can be considered as explained variation due to changes in independent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.438	.192	.167	2.108

Model IV: Feedback and Helping

The value of R Square is 0.171 which means that 17.1% variation in the dependent variable can be considered as explained variation due to changes in independent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.414	.171	.145	1.612

Discussion & Conclusion

The study aims at unveiling the extent of association among the different components of customer co-creation behaviour. The components which were found to have highest association were further analyzed to develop appropriate regression models. The results of the study indicate that responsible behaviour and personal interaction are closely correlated with advocacy. Also, personal interaction and feedback are strongly correlated with helping. On the basis of these results, respective regression models were developed and the model fit was tested using coefficient of determination. Model I is appropriate fit for regression analysis as the value of R-Square is 0.712, which is much higher than the other three regression models. Thus, the first regression model in which responsible behaviour is taken as an independent variable and advocacy as dependent variable can be used for forecasting purpose. The overall study concludes that the customer value co-creation behaviour is affected by eight components which are correlated. But the association is not strong enough in order to develop a multiple regression model to forecast the co-creation behaviour based on this association. The current study may be further extended by increasing the sample size and change in the sampling procedure. Also, sector specific study may be done to have a sectoral perspective about customer value co-creation behaviour.

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