



Co-creation and consumer's purchasing intentions, any value in B2B activities?

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ABSTRACT

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Abstract

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Given the increasing competitive nature of global markets, consumers are able to choose from an ever-increasing quality of products and services with constant declining prices. Hence, better understanding of B2B value co-creation activities that governs suppliers' relationship with a direct impact on consumer is of great importance. The general purpose behind the study is that customers are willing to buy products only if consumers are in demand of the manufactured products, and therefore, the marketing efforts should target the ultimate consumer as opposed to the buyer. The purpose of this study is to investigate the impact of B2B value co-creation on consumers in South East Asia's manufacturing industry. The research questions of this study are as following; what is the impact of B2B value co-creation on consumer satisfaction? What is the effect of value co-creation behavior on repurchase Intention? What is the effect of value co-creation behavior on willingness to pay premium? Available literature that deals with B2B co-creation in South-East Asia is primarily concerned with examining the concept of value co-creation behavior and its impact within organizational settings, with little consideration given to B2B value co-creation from consumer standpoint. Hence, an approach that attempts to assess B2B value co-creation impact on the ultimate consumer provides a new insights and a greater understanding of B2B value co-creation relationship within this important geographical part of the Asian market. Findings show that B2B value co-creation activities have a positive impact on consumer satisfaction in SE-Asian manufacturing sector. Findings also reveal that B2B value co-creation activities have a positive effect on ultimate consumer repurchase intentions. This suggests that B2B activities involving value co-creation have a positive effect on ultimate product consumer repurchase intention.

KEYWORDS B2B activities

Introduction

The impact of value co-creation in Business-to-Business (B2B) activities on consumer's behavior is of growing interest to both, marketers and academics. The importance of value co-creation in service based organizations differ from manufacturing industries (Hsiao, Lee, & Chen, 2015). The difference lies in effect associated to consumer related outcomes such as customer satisfaction (Grissemann & Stokburger-Sauer, 2012; Hsiao et al., 2015; Vega-Vazquez, Angeles Revilla-Camacho, & J. Cossío-Silva, 2013), customer loyalty (Grissemann & Stokburger-Sauer, 2012; Hsiao et al., 2015), customer's turnover intention (Revilla-Camacho, Vega-Vázquez, & Cossío-Silva, 2015) and firm related outcomes such as firm performance (Hoyer, Chandy, Dorotic, Krafft, & Singh, 2010) increasing technical quality and functional quality (Grönroos, 2007; Zhao, Wang, & Fan, 2015) of firm's activities, firm's profitability (Hoyer et al., 2010), sustainability of service organizations (Prahalad & Ramaswamy, 2004; Vega-Vazquez et al., 2013) and the development of core competency and sustainable competitive advantage (Lusch, Vargo, & O'Brien, 2007; Park & Ha, 2015; Vargo & Lusch, 2004).

Co-created activities are often shown to possess high expected benefits and innovation, which ultimately increases commercial attractiveness (Franke, Von Hippel, & Schreier, 2006; Magnusson, Matthing, & Kristensson, 2003) and allows for better product differentiation (Song & Adams, 1993). Therefore, a closer preference fit of co-created relationship, in turn, can have an effect on subsequent positive post purchase intention such as repurchase intentions and willingness-to-pay more (Franke, Keinz, & Steger, 2009). The general theses here is that customers are willing to buy products only if consumers are in demand of the manufactured products, and therefore, the marketing efforts should target the ultimate consumer as opposed to the buyer. As such, allowing for the opportunity of repurchase intention, which reflects individual's judgment concerning re-buying. A designated service from the same organization, takes into accounts consumer's current condition and circumstances (Grissemann & Stokburger-Sauer, 2012), willingness to pay a premium, which reflect individual's willingness to pay more to use the co-created service (Franke et al., 2009). This can be viewed as an outcome of B2B value co-creation with positive impact on consumer, and hence, it is important to conduct such a study to further examine the impact of this B2B relationship. The consequences of B2B value co-creation activities is an important area of study because organizations engaged in B2B activities constantly look for new ways to attract new and repeated customers. As such, co-creation of value in B2B engagement with the purpose of creating novel products can be applied as strategy to attract more customers and/or as a mean to gaining competitive advantages.

Problem Statement

Knowledgeable, networked, empowered consumers are no longer sheer responders to organization's created value. But rather active value creators (Prahalad & Ramaswamy, 2004; Xie, Bagozzi, & Troye, 2008; Yi & Gong, 2013); and therefore, understanding the B2B value co-creation activities between both suppliers and consumers is of great importance to research (Shaw, Bailey, & Williams, 2011; Verhoef, Reinartz, & Krafft, 2010). In an increasingly competitive marketplace, consumers are presented with a greater choices of products than ever before (Prahalad & Ramaswamy, 2004). Despite this fact, there is mounting evidence showing that consumers are displeased with various market offerings. This may be caused by the inability of suppliers to meet specific consumer requirements (Prahalad & Ramaswamy, 2004). This is evident in the increasing number of startups and mobile application on hand-held devices that offers genuine and differentiated solutions (Theil & Masters, 2014). Seeing that, there is a growing agreement that companies engaged in B2B activities need to consider value co-creation to maintain relevance to consumers' needs (Lambert & Enz, 2012)

Research questions

This study intends to investigate the impact of B2B value co-creation impact on consumers in South East Asia's manufacturing industry. Research questions formulated are:

RQ1: What is the impact of B2B value co-creation on consumer satisfaction?

RQ2: What is the effect of value co-creation behavior on repurchase Intention?

RQ3: What is the effect of value co-creation behavior on willingness to pay premium?

Significance of the Study

Existing studies have mostly focused on examining the concept of value co-creation behavior and its impact within organizational settings, with little consideration of B2B value co-creation from consumer standpoint. Therefore, consumer approach to assessing B2B value co-creation impact on consumer provides new insights and a greater understanding on the mechanism of B2B value co-creation. The underlying premise is that customers are willing to buy products only if consumers demanding these products, and hence, the marketing efforts should ultimately target the consumer rather than the buyer. Hence, on the theoretical significance of this study is the examination of the impact of B2B value co-creation impact from a consumer perspective. Consumer value co-creation behavior has been generally examined at the conceptual level (Yi & Gong, 2013); however, empirical studies examining this relationship at the B2B level are limited. Hence, empirical investigation of the outcome of consumer's value co-creation involving B2B activities adopted in this study, contributes to the exiting body of the knowledge on B2B value co-creation behaviour.

Theoretical Underpinning

This study was based on Expectancy Disconfirmation Theory to examine the proposed relationship between constructs of the study. The consideration of Expectancy-Disconfirmation Paradigm (EDP) as bases for this research was applied here because of its dominance in examining customer satisfaction relationships (Bitner, 1990). Oliver (1977; 1980) established EDP theory and has since been widely accepted theoretical framework for assessing customer satisfaction. EDP suggests that consumer purchase of goods and services with cognitive pre-purchase expectation about anticipated performance.

Literature Review

The concept of value co-creation origins stems from service dominant logic (S-DL) paradigm by Vargo & Lusch (2004). The introduction of S-D logic into the marketing literature has reinforced the increasing transformation of marketing thinking (Lehmann, McAlister, & Staelin, 2011). The S-D logic exchange viewpoint challenges the basic principles of economics (Vargo & Lusch, 2004), The objective of economic exchange in G-D logic is to manufacture, distribute and sales products and services for consumption purposes. Organizational production processes do involve various resources of value embedded in the production of goods and services, which ultimately will reflect in the price a given consumer is willingness to pay (WTP) for it. As such, economization of scale and standardization will lead to maximum efficiency and in turn will positively reflects on profits. The S-D logic viewpoint is where every exchange is dependent on the nature of activity and when products are involved in this process; they are merely tools of delivery and application of resources (Vargo, Maglio, & Akaka, 2008). This also leads to the understanding that products are means for service delivery. It is also true then that consumers' participation inevitably improves over all productivity in more ways than one. Additionally, consumers'

active involvement in the invention, design, formation and delivery process inevitably contributes to firm's cost reduction. Because of this involvement and contribution, consumer may expect reduction in prices (Auh, Bell, McLeod, & Shih, 2007). However, this is entirely dependent on service provider's willingness to pass on the benefit to consumer.

Co-creation refers to the process in which a consumer and a service provider mutually engage in the process of value creation (Park & Ha, 2015); as a result, value co-creation is an outcome of joint effort, a value created by the consumer and the service provider (Prahalad & Ramaswamy, 2004). In practice however, organizations are proactively in quest of opportunities to engage and coact with customers (Park & Ha, 2015). For instance, consumer feedback, directly and indirectly as in the case of software industry are engaged in participative relationship of co-creation nature, whether it is a focus group or sending automatic detailed feedback to service providers highlighting various usage activities (e.g., Nike, Lego, Kellogg, restaurants, and banks (Park & Ha, 2015). Moreover, available studies examining B2B co-creation in Asian firms have focused generally on understanding consumer's attitude in service co-creation rather than on customer attitude towards the process of buying decision.

There are two types of customer value co-creation behavior in service delivery process highlighted by service marketing literature; consumer participation behavior and consumer citizenship behavior (Bove, Pervan, Beatty, & Shiu, 2009; Revilla-Camacho et al., 2015; Vega-Vazquez et al., 2013; Yi & Gong, 2013; Yi, Natarajan, & Gong, 2011). Consumer participation behavior, refers to "expected and required behaviors necessary for the successful production and delivery of the service" (Groth, 2005; Revilla-Camacho et al., 2015; Vega-Vazquez et al., 2013; Yi & Gong, 2013; Yi et al., 2011) whereas consumer citizenship behavior, refers to "voluntary and discretionary behaviors that are not required for the successful production and delivery of the service but that, in the aggregate, help the service organization overall" (Groth, 2005; Revilla-Camacho et al., 2015; Vega-Vazquez et al., 2013; Yi & Gong, 2013; Yi et al., 2011). Considering the expectancy disconfirmation theory, which forms the base theory of this study, consumer satisfaction, repurchase intention and willingness to pay a premium may be considered as the consequences or an outcome of value-co-creation in B2B activities. Products created in this fashion are more likely to meet the expectation of consumer value co-creation in B2B activities and generally examined at the conceptual level (Yi & Gong, 2013); empirical studies examining this relationship at B2B level are limited. Hence, empirical investigation of the outcome of consumer's value co-creation involving B2B activities is needed to further understand the nature of this relationship in the Asian context. As a result, examining the construct of satisfaction is imperative here, since it reflects the degree of overall consumer acceptance, as an outcome of suppliers ability to fulfill consumer wants, needs and expectations effectively in relation to service provided as an outcome of B2B engagement in value co-creation.

Methodology

Data Collection Procedure

Primary data was collected through triangulation process. The first approach was a Likert scale survey, personally administered questionnaires from 250 distributed questionnaires. Only 36 middle and top level managers personally involved in the marketing and manufacturing functions were able to participate in the study. 15 participants were from Malaysia, 2 from Singapore, 2 from Cambodia, 3 from Myanmar, 5 from Indonesia, 4 from the Philippines and 5 from Thailand. All participants are involved in business to business marketing and manufacturing activities. The industries of participants were the following; automotive, consumer goods, electronic, apparel, transportation and aviation. All 36 questionnaires were used for data analysis. The questionnaires were collected over 22 months timeframe while working and consulting throughout Asia. The second approach to data collection was open ended questions through a semi-formal interviews. Only 32 marketing and manufacturing managers were interviewed in the second phase. Open coding system was used as a method of sorting and deriving themes from the open ended questions. Emerged themes supported data collected through the Likert-scale questionnaire.

Data Analysis

Additionally, Likert scale data collected were analyzed utilizing Structural Equation Modelling (SEM), which is popular statistical tool for multivariate data and widely used in social and behavioural sciences (Leguina, 2015). There are two main approaches for conducting analysis in SEM framework, these are covariance-based SEM (CB-SEM) and partial least-squares SEM (PLS-SEM). Partial Least Square (PLS) was used as a data analysis tool version 3.0 was used to analyze data in this study. The virtue of utilizing PLS is its effectiveness in dealing with small sample size such as the one in this study, and complex models with three orders construct (Hair et al., 2013). The effectiveness of PLS was further illustrated in its ability to allow researchers to test mediating effects utilizing one singly method (Joseph F Hair et al., 2006).

Variables and Measurements

This study examines relationships between four variables; one independent and three dependent variables. The independent variable of this study is value co-creation in B2B activities and the dependent variables are consumer satisfaction, consumer repurchase intention and consumers' willingness to pay premium for co-created products. The following section will provide information on each variable and its measurement items.

Independent Variable

Survey items that measures value co-creation in B2B activities are adopted from (Yi & Gong, 2013) and modified to fit the objectives of this study. The scale in the questionnaire consists of five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5) was utilized to measure respondents level of agreement with the posed items.

Dependent Variables

Survey items that measures satisfaction consists of five items, five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5) was used to measure respondent level of agreement with items in the questionnaire.

Reliability

Reliability measures the items and measurement scales' quality to determine their reliability. The most commonly employed measure of reliability is Cronbach's alpha. Cronbach's alpha test showed an acceptable rate of $\alpha > 0.8$

DATA ANALYSIS

Hypotheses testing revealed the following findings;

- **Hypothesis 1: B2B value co-creation activities have a positive effect on consumer satisfaction.**

Table 1 Testing of Hypothesis 1

		Path Coefficient	Standard Error	t Values	p Values	R ²	Remarks
H1	VCCB → CS	0.840	0.030	28.188	0.000	0.704	Accepted

Based on Table 1, the relationship of B2B value co-creation activities on consumer satisfaction has value of 0.840. The standard error for this relationship is 0.030 and the empirical t value is 28.188. This is higher than the theoretical t value of 1.96 for a 5% probability of error. Thus, it is concluded that the relationship of B2B value co-creation activities on consumer satisfaction is at a significant level. Based on this, it can be concluded that the hypothesis is accepted; that is, B2B value co-creation activities has a positive effect on consumer satisfaction.

Consumer satisfaction is accurately predicted by B2B value co-creation activities since the R^2 is above the 0.5 accepted level at 0.705 and the accuracy level is above medium. Given that B2B value co-creation activities is the only exogenous latent variable that has a relationship with consumer satisfaction in the reflective path, F^2 and Q^2 cannot be calculated for this relationship as only value co-creation activities is reflected in the calculated R^2 .

Table 2: Hypothesis 3 Predictive Accuracy, Effect Size and Predictive Relevance

	R^2	F^2	Q^2
Willingness to Pay More (Effect of B2B Value Co-creation activities)	0.188	0.09	0.06

Based on analysis presented in Table 2, the 0.188 R^2 indicates a weak level of predictive accuracy since it is lower than 0.25. The effect size (F^2) and predictive relevance (Q^2) of B2B value co-creation activities in the model on willingness to pay more has been calculated by omitting value co-creation behavior and running the model. The effect size (F^2) of B2B value co-creation activities in willingness to pay more is small at 0.09. The calculated Q^2 is 0.06, which is above 0 so B2B value co-creation activities has predictive relevance for willingness to pay more. The predictive relevance is however small.

Conclusion

Based on result of data analysis presented above, B2B value co-creation activities has a positive impact on consumer satisfaction in SE-Asian manufacturing sector involved in B2B activities. This finding is aligned with Revillar-Cmacho et al., (2013) findings. who showed that value co-creation activities have a positive effect on customer satisfaction. Therefore, the first hypothesis of the study, which proposed that B2B value co-creation activities have a positive effect on consumer satisfaction, is supported. Moreover, the result of data analysis shows that B2B value co-creation activity has a positive effect on consumer repurchase intentions. Consequently, the second hypothesis of the study, which suggests that B2B value co-creation activities have a positive effect on consumer repurchase intention, is supported. Additionally, data analysis supports earlier findings that B2B value co-creation activities have a positive effect on the willingness of consumer to pay more. As such, managerial awareness of such impact is not only essential, but also vital to profitability and loyalty matters. Therefore, one can conclude that B2B value co-creation activities have an effect on consumer satisfaction, repurchase intention, and willingness to pay more. Furthermore, satisfaction is found to have a positive effect on consumers' repurchase intention. It is also concluded that satisfaction mediates the relationship between B2B value co-creation activities and consumers' repurchase intention. However, it was found that satisfaction does not have an effect on consumers' willingness to pay more and does not mediate the relationship between B2B value co-creation activities and consumers' willingness to pay more. The findings of this study contribute to the exiting body of knowledge concerning value co-creation in B2B activities by introducing and examining relatively new

linkages between the various variables of the study. This study may be considered as one of few that investigated the impact of B2B value co-creation activities in the Asian region.

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