

# Value Co-Creation: The Effect on Relationship Quality

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**Abstract**—This research aims to investigate the influence of value co-creation on relationship quality. Co-creation has relational properties, but there are limited studies that discuss the effect of value co-creation on relationship outcomes such as customer satisfaction, commitment, and confidence benefit/trust, and social benefits. Hypotheses testing is done using an experimental method. Value co-creation scenarios are developed using purchasing of tourism travel services settings. Value co-creation is manipulated into high and low conditions. The independent t-test results show that there are differences in confidence benefit/trust and social benefit in high and low-value co-creation groups.

**Index Terms**—value co-creation, relationship quality, tourism travel service

## I. INTRODUCTION

Co-creation is a new paradigm of management research, which allows companies and consumers to create value through interaction (Galvagno and Dalli (2014)). Interaction in co-creation allows consumers to obtain better service quality, customization, and control [1]. When all companies have produced quality products with efficient costs, value co-creation becomes a source of competitive advantage for companies (Leavy and Moitra (2006)). This competitive advantage is achieved through increased efficiency such as reduced costs and risks, as well as effectiveness such as increased willingness to buy, increased income and profits, and innovation [2].

Value co-creation has a relational nature (Edvardsson, Tronvoll, and Gruber (2011)), but there is still limited research that explores the relationship of value co-creation in building relationships with consumers. The influence of value co-creation on consumer trust and commitment as an element of relationship quality is still limited. Empirical research on the relationship of value co-creation to consumer confidence and relationship strength has been examined by Devasirvatham [3], however, research on the relationship of value co-creation to commitment and social benefits has not been found yet. Given the quality of relationships is a better predictor in explaining loyalty compared to customer satisfaction, this study aims to fill the gap in how value co-creation is used to build relationships with consumers.

Research in relationship management (RM) shows that this field is still developing (Payne and Frow (2017)). However, Sheth (2017) argues the need for RM research revitalization;

he proposes shifting from managing consumers to joint ventures with customers. A joint venture, in this case, means collaboration of creating shared value through mutual commitment in resources and capabilities by all parties involved. It is stated that in traditional RM, companies/suppliers are parties who have a commitment to resources. In the view of joint ventures with customers, customers are also parties who must commit to the inclusion of resources (time, money, and ability). Payne and Frow (2017) voiced a similar view by stating that one of the RM research priorities is RM research using the value co-creation framework. They argued that value co-creation requires active customer participation in sharing and contributing resources, and increasing relational outcomes. Value co-creation in the “joint sphere of responsibility” is a critical point to strengthen customer-company relations. This study aims to determine the role of value co-creation to improve relationship quality.

## II. THEORETICAL FRAMEWORK

### A. Value Co-Creation

Co-creation is defined as the joint creation of values between companies and customers (Prahalad and Ramaswamy (2000)). Co-creation is also defined as the involvement of the customer as active collaborators (Kristensson, Matthing, and Johansson (2008)). There are several key components in co-creation definition, including interaction ([4]; Ind and Coates (2013)), collaboration (Galvagno and Dalli (2014); O'Hern and Rindfleisch (2010)), participation/customer active role (Zwass (2010)). Interaction is a core element in co-creation (Bendapudi and Leone (2003); [1]; Chathoth, Altinay, Harrington, Okumus, and Chan (2013)) and co-creation is a function of interaction [5]. In co-creation, the interaction is classified into direct interaction and indirect interaction [1]. Direct interaction occurs when two or more actors act together in a process; in doing this joint action, they influence each other's actions and perceptions.

Value outcome refers to the type of value that is perceived to be received by customers or other parties. Therefore, the outcome of the co-creation value process refers to the perception of value received by customers and other parties involved in the process of co-creation value identified the presence of positive and negative co-creation outcomes [6], [7]. Positive

outcomes consist of cost reduction, increased effectiveness of products/services, relationship building potential [7], increased attitudinal loyalty and behavioral loyalty [8], increased sales revenue [9], increased company's customization capability and service capability [10], increased market performance and financial performance [10], [11]. Meanwhile, negative outcomes include reduced strategic planning control, increased complexity in managing corporate objectives, and complexity in managing misperformance and customer idea selection [7].

Hoyer, et al. predicted that relationship building was a potential outcome of value co-creation [7]. The interaction that become a core element of value co-creation is also the key construct of relationship marketing [4]. Value co-creation has relational nature in the sense that both parties interact and combine their resource to create value (Vargo and Lusch (2010)). However, value co-creation research that examined value co-creation relationship with relationship quality was not found. Relationship quality is defined as the intensity and closeness of a relationship [12]. A relationship quality approach assumes that customer relationship evaluations are the center of customer decisions to continue or terminate the relationship with service providers [13]. A combination of satisfaction, trust, and commitment to salespeople is the manifestation of relationship quality [14]. Meanwhile, Hennig-Thurau, Gwinner, and Gremler stated that confidence benefit, social benefit, customer satisfaction, and commitment are the variables forming relationship quality [15].

These relationship quality variables are also found as value co-creation outcomes. As an example, customer satisfaction [2], [3], [16], customer trust [3], [17], and commitment [17] are proven as value co-creation outcomes. Customer satisfaction and customer trust have been empirically proven as the outcome of value co-creation. However, commitment and social benefits as a value co-creation outcome are still conceptually proposed. In the conceptual paper proposed by Grönroos, value co-creation is suggested to increase trust, commitment, comfort when interacting, and attractiveness to suppliers [4]. Other supporting findings state that companies that implement service dominant orientation are proven to be able to increase customer affective commitment [11]. Companies that implement service dominant orientation are companies that encourage and have the ability to process value co-creation with customers. A characteristic of the value co-creation process is the interaction and integration of resources as a reciprocal process to get mutual benefits between parties involved, this process will strengthen customer relationship which is embodied in the form of trust and commitment [11].

Hennig-Thurau, et al. described social benefit as the emotional side of a relationship and characterized by customer familiarity by employees, customer closeness feeling with employees, and friendship building between customers and employees [15]. Value co-creation research has found the formation of social values in the value co-creation process [18]. In this study, social value is described as customer effectiveness to improve their social conception, for example, satisfaction arises due to social interaction need fulfillment.

In customer participation research, the benefits that customers received because they have good relationships with employees are referred to as relational value [1]. Relational value in Chan et al. (2010) study has the same meaning as social benefit proposed by Hennig-Thurau, et al. [15].

### III. HYPOTHESES

#### A. Value Co-Creation Effect to Confidence Benefit/Trust

Trust arises when one party believes in the reliability and integrity of another party (Morgan and Hunt (1994)). Trust can be formed through dialogue because dialogue enables customers, companies and customer communities to form integrity bonding and share risk [19]. Dialogue or conversation is a medium where two parties develop understanding. Through this process, their understanding converges into shared views and then leads to a relationship of mutual trust [20]. This is reinforced by the KMV model proposed by Morgan and Hunt (1994) which states that communication is an antecedent in the formation of trust. Interaction, dialogue, communication, and conversation are core elements in value co-creation. This core element is a medium that can be used to develop trusting relationships between buyers and sellers.

Prahalad and Ramaswamy stated value co-creation requires transparency from the company [19]. Customers' confidence will be formed when they know the truth of company information about products offered. Value co-creation can also shape customer trust; when a company engages customers, there will be an opportunity to interact with customers; when the interaction is satisfying, it will lead to trust [21]. The high level of involvement with the service provider brand will increase the level of trust in the brand, which leads to increased customer commitment [22].

Value co-creation involves active interaction between seller and buyer in order to create the solution that is in accordance to buyer desires and needs. This process has a core element of adaptation process to adjust customer needs. The willingness to adapt customer needs is proven to be a step towards building customer confidence [23]. Willingness to adapt customer needs also exhibits producers' concern for solving customer problems [24].

There is limited research that investigates the effect of value co-creation on customer trust. It is only Devasirvatham (2014) who empirically proves that a high level of value co-creation has a positive effect on customer confidence. Therefore, this study presents the following hypothesis.

*H1: Value co-creation has a positive effect on confidence benefits*

#### B. Value Co-Creation Effect to Customer Satisfaction

Value co-creation enables a customer to obtain better service quality, customization, and control [1]. Customer active involvement allows she/he to monitor the service process, thereby helping to ensure quality and achieving goals. Customer involvement also allows customers to provide input directly, make choices, and work together to create customization [8]. The customer also enjoys his/her ability to

control service processes and outcomes when they are actively involved (Dabholkar, et al. (1995)).

The higher degree of value co-creation means that there is more intensive interaction between customer and provider, and it means that provider offers are more suitable to customer preferences. The suitability between the offering with the preference will ultimately increase customer satisfaction. The interaction between the provider and the customer also allow the customer to know more about the ability of the provider, therefore the customer can predict more precisely the services that will be received. In other words, customer expectation will be more in line with offering condition received by customers [25]. Previous research has documented positive influence of value co-creation on customer satisfaction (Bendapudi and Leone (2003); [26]; Gallan, Jarvis, Brown, and Bitner (2013); [2]; Mathis, Kim, Uysal, Sirgy, and Prebensen (2016); Randall, Gravier, and Prybutok (2011); [12]). Therefore, this study presents the following hypothesis.

*H2: Value co-creation has a positive effect on customer satisfaction with the company*

### *C. Value Co-Creation Effect to Customer Commitment*

Commitment is defined as the desire to maintain valuable relationships [27]. Service-Dominant Logic (SDL) and Service Logic (SL) perspectives describe value co-creation in a relational context and state that value co-creation produces tangible and intangible outcomes ( [5]; Vargo and Lusch (2004)). One of the value co-creation intangible outcomes is a formation of a strong relationship between the seller and buyer [3]. Conceptually it is stated that value co-creation will produce a strong bond with customers in the form of trust, commitment, and loyalty [28]. Interaction and dialogue that occur in the value co-creation process is a means to build commitment between seller and buyer. Customers involved in the value co-creation process form a commitment to the company offering [28]. Value co-creation through personalization of interaction and customization of problem-solving solution facilitates close and strong seller-buyer relationship [29] which ultimately leads to a commitment to the company. The relationship between value co-creation and commitment is also stated by Boyle who states that co-creation in brand consumption means fostering a relationship between the brand and customer [30].

Based on those studies, it is suspected that the higher degree of value co-creation will lead to higher intensity of interaction and dialogue, therefore the possibility to grow strong commitment is higher. Therefore, this study presents the following hypothesis.

*H3: Value co-creation has a positive effect on customer commitment to the company*

### *D. Value Co-Creation Effect to Social Benefit*

Social benefit represents an emotional component of a relationship that is characterized by customer familiarity by employees, customer knowing employees, and friendship building

between customer and employees [15]. In customer participation research, the benefits that the customer receives because she/he has a good relationship with employees are defined as the relational value (Yim, et al. (2010)). Both of these constructs refer to the emotional bond formed between the customer and employees. In this study, findings of relational value in customer participation research are used to enrich the explanation of social value, and the term used is social value.

Value co-creation involves customers' active participation in shared value creation. Based on customer participation research, it is stated that customer participation improves communication and builds a relationship between customers and employees [29]. In the health care literature, when patients work with a doctor to voice preference and value, it will increase the level of care carried out and encourage more empathetic, honest and friendly interactions, which then results in a social value (Foreyt and Poston (1998); Street, et al. (2003)). Chan, et al. prove that customer participation is positively related to social value [1]. Based on these findings, it can be said that increasing degree of value co-creation will increase the level of participation, interaction, and collaboration between customer and employees. The high participation, interaction, and collaboration will, in turn, create an emotional connection between customer and employees. Therefore, this study presents the following hypothesis.

*H4: Value of co-creation has a positive effect on social benefit.*

## IV. METHOD

This research attempts to prove value co-creation's effect on relationship quality. To achieve this goal, this study uses an experimental design. The experiment is the most appropriate research design to determine a causal relationship between the independent and dependent variable (Leary (2008)). The experimental method allows researchers to observe effects of changes in one or more variables systematically, under a controlled condition [31].

The experiment is conducted using role-playing scenarios in business-to-customer (B2C) relationship in the travel services context. Experimental scenarios describe customer cooperation with a travel agent in deciding the best solution for the customer.

This study involved one independent variable namely value co-creation, and four dependent variables namely confidence benefit/trust, customer satisfaction, commitment, and social benefits. Value co-creation variables are manipulated into two conditions: low and high levels.

Several steps were taken to prove the hypothesis in this study. A pilot test is conducted to ensure the scenario works according to the intended purpose. The validity and reliability tests were conducted to measure the accuracy and precision of the dependent variables' measurement items. Independent t-test was conducted to examine differences between two groups of the independent variables on the four dependent variables.

The unit of analysis in this study is customers in the middle economic group. The selection of this group is based

on the research context used, which is travel service. Travel service is usually consumed by the middle economic group. In Indonesia, the middle economic group is indicated from the amount of income which is above Rp 6 million per month [32]. The research participants are workers who have income of more than Rp 6 million per month.

## V. RESULTS

The pilot test was carried out in 2 stages, the pilot test examined whether the value co-creation (VCC) stimulus works in accordance with the objectives. VCC stimulus was developed into two versions of scenarios which are high VCC and low VCC scenarios. In this first stage, there were 5 participants for each VCC scenario. The criteria for participants in this study were those who already have income because the scenario used was a purchasing decision-making process involving a relatively large amount of money. Therefore, those who own income are considered more suitable as participants. Participants are employees in government agencies with age range of 30 to 52 years. The results of the pilot-test show that the average score of customer contribution in value co-creation at high VCC scenario is 7.7, and at low VCC scenario is 5. Based on the results of the pilot test, a scenario revision was carried out by emphasizing the points of cooperation between customers and travel agents, namely on the selection of route, accommodation, and restaurant.

The second stage of the pilot test was conducted to find out whether the revised scenarios work according to the objectives, as well as reliability and validity testing of dependent variables items. There were 52 participants who are undergraduate students who have worked, ranging from 17 to 42 years old. Questionnaires were randomly assigned by stacking questionnaires intermittently for both types of VCC treatment. It is expected that each participant has the same opportunity to get this type of treatment. The number of participants for high VCC is 27 participants, and low VCC is 25 participants.

Data of the second pilot test were analyzed using SPSS. First, independent t-test was conducted to answer the first objective of the pilot study, which was to find out whether the scenario worked according to the purpose. The scenarios work according to the objective if there is a difference in perception scores of customer contributions for both conditions. The results of independent t-test with 95% confidence level showed t value of -2.18 and p-value of 0.033 ( $<0.05$ ), which means that there is a difference in the average perception score of customer contributions for high VCC and low VCC conditions ( $MVCC_{High} = 7.78$ ;  $MVCC_{low} = 6.83$ ). Thus, it can be concluded that the scenario has worked in accordance with the objectives.

The validity test is used to measure the validity of a questionnaire. In this study, the validity test was carried out by conducting bivariate correlations between each indicator score with a total variable score. The amount of data used in this analysis is 27, so the r-table value at the 95% confidence level is 0.3233. From 23 questions, there are two questions that have r-count less than r-table, and a significance value of more

than 0.05. Therefore, these two questions are not considered valid. Whereas 21 other questions have r-count more than r-table, and the significance value is less than 0.05, so they are considered valid.

The reliability test was conducted to find out the consistency or stability of answers over time. According to Nunnally (in [33]) a contract or variable is considered to be reliable if it gives the Cronbach Alpha value ( $\alpha$ )  $> 0.60$ . The reliability test results show that all the items have a Cronbach Alpha value above 0.60. Therefore, it can be said that these 21 questions are reliable.

Independent t-test was conducted to test the hypotheses. The hypotheses basically propose a relationship between value co-creation and confident benefits/trust, social benefit, customer satisfaction, and customer commitment. By proving that there are differences in confident benefit/trust, social benefit, satisfaction, and commitment between high VCC and low VCC groups, the relationship is proven. The independent t-test results for customer satisfaction show that t value is -0.751 with p-value = 0.457. This shows that there is no difference in customer satisfaction for high VCC conditions and low VCC ( $MVCC_{high} = 25, 5$ ;  $MVCC_{low} = 24.7$ ). Independent t-test results for confident benefit/trust show t value is equal to -2.607 with p-value = 0.012. Therefore, it can be said that there are differences in confident benefit/trust for high VCC and low VCC conditions ( $MVCC_{high} = 26.57$ ;  $MVCC_{low} = 24.74$ ). Independent t-test results for social benefits show t-value is -2.445 with p-value = 0.018. It can be said that there are social benefit differences for high VCC and low VCC conditions ( $MVCC_{high} = 14.87$ ;  $MVCC_{low} = 13.71$ ). Meanwhile, for the commitment, independent t-test obtained t value of -0.524 with the p-value of 0.602. This shows that there is no difference in customer satisfaction for high VCC and low VCC conditions ( $MVCC_{high} = 24.5$ ;  $MVCC_{low} = 24.1$ ).

## VI. CONCLUSION

This study aims to observe the effect of value co-creation on relationship quality. Value co-creation is manipulated into high-value co-creation and low-value co-creation conditions. Meanwhile, relationship quality is construed into four dimensions namely customer satisfaction, confident benefits, social benefits, and commitments [15]. The experimental method with role played scenarios was used to prove the relationships. The results of the analysis showed that value co-creation proved to have an effect on confidence benefits/trust and social benefit.

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