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**Customer value creation behavior really works? The mediating role of
customer self-determination and customer role stress**

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Abstract

This article examines the mechanisms by which customer value creation in-role behavior and customer value creation extra-role behavior influence customer well-being. The results from a survey of 103 business customer-supplier dyads show that customer value creation in-role behavior and customer value creation extra-role behavior influence customer value through a process of customer self-determination and customer role stress, leading to an increase in customer value and, in turn, customer well-being. Moreover, the results show that relationship quality and interpersonal attraction moderate the influence of customer value creation behaviors on customer self-determination and customer role stress.

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Customer value creation behavior really works? The mediating role of customer self-determination and customer role stress

In an era of rapid growth of service economies, both researchers and practitioners have come to acknowledge that customer value creation behavior plays a vital role in the competitive advantage of an organization. There has been a considerable amount of academic research which has examined customer value creation behavior. For example, a causal chain linking employee satisfaction to a firm's financial performance through mediating constructs such as customer satisfaction and customer loyalty has been well established (e.g., Cermak *et al.*, 1994; Ennew and Binks, 1999; Skaggs and Huffman, 2003; Yi *et al.*, 2011; Yim *et al.*, 2012). Thus, the task of getting customers to engage in value creation behavior is a challenge for service firms in many industries.

However, not all of the academic research on customer value creation behavior has been positive. Growing evidence reveals contradictory findings regarding the effect of customer value creation behavior. Some studies report that customer value creation behavior increases employee stress (e.g., Chan *et al.*, 2010; Hsieh *et al.*, 2004; Larsson and Bowen, 1989) and even decreases firm performance (Skaggs and Youndt, 2004). Thus, despite the widespread interest in customer value creation behavior, further research is needed to resolve this inconsistency. In light of these findings about the negative impacts of customer value creation behavior, this study adopts role episode theory (Kahn *et al.*, 1964) to explicate the negative effects of customer value creation behavior on customer value and self-determination theory (Edward L. Deci and Ryan, 1985) to explain the positive effects of customer value creation behavior on customer value to explore the positive and negative effects of customer value creation behavior.

Figure 1 depicts the conceptual framework. This framework is founded on the service-dominant logic, which advocates a customer value creation behavior-customer value-customer well-being link (Grönroos and Voima, 2013; Vargo and Lusch, 2008). Self-determination theory and role episode theory are applied within the overarching framework to examine how customer value creation behavior drives customer value through customer self-determination and customer role stress. Furthermore, the effects of customer value creation behavior are examined, and depend on relationship characteristics with suppliers (i.e., relationship quality and interpersonal attraction). Finally, this study explores the relationship between customer value and customer well-being. Specifically, this study conceptualizes customer value creation behavior consists of customer value creation in-role behavior and customer value creation extra-role behavior following the previous research, which argues that these two types of customer value creation behavior should be distinguished from each other (Bettencourt, 1997; Groth, 2005; Yi and Gong, 2013).

Insert Figure 1 about here

Self-determination theory

According to self-determination theory (SDT), fulfillment of basic psychological needs are essential for supporting optimal functioning in every living being. Specifically, the theory suggests that satisfaction of autonomy, competence, and relatedness is a necessary condition for effective functioning (Levesque *et al.*, 2004). In SDT's

framework (Edward Lewis Deci and Ryan, 2002), competence is defined as “feeling effective in ones’ ongoing interactions with the social environment and experiencing opportunities to exercise and express one’s capacities (p. 7)”. Relatedness is defined as “feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one’s community (p. 7)”. Finally, autonomy is defined as “being the perceived origin of source of one’s own behavior (p. 8)”.

SDT views living beings as active organisms which seek challenges and attempt to actualize their potentials. So, when they successfully accomplish what they are trying to do, their perceived basic psychological needs will be fulfilled and they will experience greater value and well-being; they will also feel autonomous, competent, and related (Edward Lewis Deci and Ryan, 2002; Levesque *et al.*, 2004).

It has been widely noted that customer value creation behavior creates a challenging environment for customers, who must take extra responsibility for their new roles and tasks as value creator (Yim *et al.*, 2012). As a result, customers’ ability and skills in coping with the challenges brought by customer value creation thus introduces an issue of increased customer self-determination in terms of their autonomy, competence, and relatedness. This, in turn, leads to customer value, which is defined as perceived preference experience. Thus:

H₁: Customer self-determination mediates the relationship between customer value creation in-role behavior and customer value: customer value creation in-role behavior increase customer self-determination, which in turn increases customer value.

H₂: Customer self-determination mediates the relationship between customer value creation extra-role behavior and customer value: customer value creation extra-role behavior increase customer self-determination, which in turn increases customer value.

Role episode theory

According to role episode theory (Kahn *et al.*, 1964), role receivers interact with different role senders in many episodes to obtain information. During interaction between role sender and role receiver, a set of expectations are formed, which in turn lead to role stress. Persistent role stress is likely to overwhelm individuals’ resources and finally deplete them.

Role stress consists of: (1) role conflict, which is defined as “the incompatibility of role expectations and demands (p. 18)”; (2) role ambiguity, which is defined as “the degree to which information is lacking about role expectations and effects performance of a role (p. 18)” (Singh, 2000), and; (3) role overload, which is defined as the extent to which role demands exceed ability of role receivers (Bettencourt and Brown, 2003; Chan *et al.*, 2010; Singh, 1998).

This study argues that customer value creation behavior could create customer role stress. When customers engage in value creation behavior, they should face additional role expectations as value creator, which means they have to spend more time and effort to fulfill their role expectations. They also have to experience a collision because of their incompatibility with suppliers and lack of experience as value creator and, in turn, decrease customer value. Thus:

H₃: Customer role stress mediates the relationship between customer value creation in-role behavior and customer value: customer value creation in-role behavior increases customer role stress which, in turn, decreases customer value.

H₄: Customer role stress mediates the relationship between customer value creation extra-role behavior and customer value: customer value creation extra-role behavior increases customer role stress, which in turn decreases customer value.

Service-dominant logic

According to service-dominant logic, customers create value and suppliers as service providers facilitate customer value creation behavior. It is thus necessary to pay attention to the influences of relationship characteristics between the customer and the supplier. In other words, customer value creation behavior depends on the relationship characteristics (Edvardsson *et al.*, 2011; Grönroos and Voima, 2013). This study investigates the moderating role of relationship quality and interpersonal attraction, because these constructs are central concepts in industrial contexts in this study.

Relationship quality is defined as “an overall evaluation of the strength of a relationship and is composed of trust, satisfaction, and commitment (p. 581)” (Kaufman *et al.*, 2006). Trust is defined as the extent to which “a party has confidence in an exchange partner’s reliability and integrity (p. 581)”. Satisfaction is defined as “the affective state that results from an appraisal of the relationship (p. 581).” Finally, commitment is defined as “the extent to which an exchange partner considers a relationship important and thus is willing to work to sustain the relationship (p. 581)” (Kaufman *et al.*, 2006).

As a consequence of this quality, customers are more likely to reduce relationship related uncertainty with suppliers, which in turn increases interaction efficiency, social need fulfillment, positive affective responses and finally lead to high degrees of relationship efficiency and effectiveness (Hennig-Thurau and Klee, 1997). In addition, customers could show more cooperative tendencies toward suppliers, attach more importance to their relationship with them, highly value their relationship with them, and foster a constructive orientation toward them (Yilmaz and Hunt, 2001). As a result, the role of supplier facilitation of customer value creation behavior will be more enhanced and thus, the link between customer value creation behavior and customer self-determination will be stronger. In contrast, the link between customer value creation behavior and customer role stress will be weaker. Thus:

H₅: The higher the relationship quality, the stronger is the relationship between customer value creation in-role (a) and extra-role (b) behavior and customer self-determination.

H₆: The higher the relationship quality, the weaker is the relationship between customer value creation in-role (a) and extra-role (b) behavior and customer role stress.

This study defines interpersonal attraction as a relatively enduring tendency to respond to someone or something in a way that reflects a positive evaluation of that counterpart in a consistent way, where the parties influence each other’s actions and attitudes to a large extent over a long period (Ellegaard, 2012). Suppliers could be attracted to customers through persuasive marketing communication and in reverse customers could have an opportunity to have interactive engagement with suppliers,

thereby benefitting from supplier resources for advanced value creation (Ellegaard, 2012). According to Schiele *et al.* (2011), interpersonal attraction determines the quality of the customer-supplier relationship and is directly linked to the effectiveness of customer value creation. In addition, interpersonal attraction enables the supplier to devote more resources to customer value creation behavior, which enhances the process of value creation. As a result, the role of supplier facilitation of customer value creation behavior will be more enhanced and thus, the link between customer value creation behavior and customer self-determination will be stronger. In contrast, the link between customer value creation behavior and customer role stress will be weaker. Thus:

H₇: The higher the interpersonal attraction, the stronger is the relationship between customer value creation in-role (a) and extra-role (b) behavior and customer self-determination.

H₈: The higher the interpersonal attraction, the weaker is the relationship between customer value creation in-role (a) and extra-role (b) behavior and customer role stress.

Customer value creation behavior

Prior research identifies two different types of customer value creation behavior: in-role behavior, which refers to required behaviors necessary for effective service creation, and; extra-role behavior, which is voluntary behavior that provides extraordinary value but is not necessarily required for service creation. (Bettencourt, 1997; Ford, 1995; Groth, 2005; Yi *et al.*, 2011). For example, customer value creation in-role behavior occurs when customers send the bank cheque to suppliers by the deadline. In contrast, the example of customer value creation extra-role behavior includes sharing positive experience with other customers and providing feedback service-related problems to suppliers.

With regards to the interaction terms in relationship quality as well as interpersonal attraction and customer value creation in-role as well as extra-role behavior, when customers encounter new suppliers, there is little relationship experience with them. In that case, customers tend to rely on emotionally focused interpersonal attraction because emotion is more likely elicited immediately on exposure to a new stimulus (Homburg *et al.*, 2006). Meanwhile, in the early stage of customer value creation, customers are not used to their role in value creation and require the assistance of suppliers as value creators. Therefore, customers focus more on value creation in-role behavior rather than extra-role behavior because of their tendency not to undertake extra-role behaviors and their lack of confidence performing them (Garma, 2010). These enhance the link between customer value creation in-role behavior and customer self-determination than the link between customer value creation extra-role behavior and customer self-determination. In contrast, customers' tendency not to undertake extra-role behaviors and lack of confidence of performing them might lead to customer stress because customers feels pressured to perform extra-role behavior (Bolino *et al.*, 2010), which weaken the link between customer value creation in-role behavior and customer stress than the link between customer value creation extra-role behavior and customer stress.

However, as the number of relationship experiences accumulates, customers acquire increasing amount of information about the supplier. In that case, customers tend to rely on cognitive focused relationship quality because customers could obtain

a lot of information regarding suppliers in their memory on which to base a judgment (Homburg *et al.*, 2006). Meanwhile, in situations in which customers have some prior experience with suppliers, are used to their role in value creation, and do not require the assistance of suppliers as value creators because of their increased technical skill for value creation, customers should focus more on value creation extra-role behavior rather than in-role behavior because of their tendency to undertake extra-role behaviors and surplus of confidence of performing them, which enhance the link between customer value creation extra-role behavior and customer self-determination than the link between customer value creation in-role behavior and customer self-determination. Conversely, customers' tendency to undertake extra-role behaviors and surplus of confidence of performing them might decrease customer stress because customers feels less pressured to perform extra-role behavior, which weaken the link between customer value creation extra-role behavior and customer stress than the link between customer value creation in-role behavior and customer stress. Thus:

H₉: The interaction effect of customer value creation in-role behavior and relationship quality on customer self-determination will be weaker than the interaction effect of customer value creation extra-role behavior and relationship quality on customer self-determination.

H₁₀: The interaction effect of customer value creation in-role behavior and relationship quality on customer stress will be stronger than the interaction effect of customer value creation extra-role behavior and relationship quality on customer stress.

H₁₁: The interaction effect of customer value creation in-role behavior and interpersonal attraction on customer self-determination will be stronger than the interaction effect of customer value creation extra-role behavior and interpersonal attraction on customer self-determination.

H₁₂: The interaction effect of customer value creation in-role behavior and interpersonal attraction on customer stress will be weaker than the interaction effect of customer value creation extra-role behavior and interpersonal attraction on customer stress.

The customer value well-being chain

Service dominant logic (Grönroos and Voima, 2013) argues that customer value could be understood as value-in-use for the customer (Helkkula *et al.*, 2012), which is defined as “a customer’s functional and/or hedonic outcome ... that is directly served through product/service usage (p. 849)” (Lemke *et al.*, 2011). This definition highlights that customer value is not embedded in a product/service itself but, rather, is created through customers’ own usage processes. It also emphasizes that customer value is characterized as utilitarian and/or hedonic, which relates to customers’ lives, objectives and aspirations (Lemke *et al.*, 2011; Payne *et al.*, 2008). Therefore, this study argues that customer value increases customer well-being, which is defined as customers being better off in some respect, such as, customers’ peace of mind, a better life for customers, satisfaction of customer needs, and reliefment of customer responsibility (Grönroos and Voima, 2013). Thus:

H₁₃: Customer value increases customer well-being.

Method

Data was collected from two separate sources using a multi-year survey. The unit of analysis in this study is both salespeople who are responsible for business customers only, and their business customers. In the first stage (Time 1), the researchers contacted several salespeople who represent various industries (for example, industrial supplies, electronic components, chemicals, appliances, and more), selected randomly from a mailing list provided by a local consulting firm in South Korea. One business customer was randomly selected among a full list of contact information provided by salespeople. Business customers also represented various industries (e.g., chemical, machinery, hardware, furniture, electronics industries, and more). Given the notion that the salesperson had frequent contact and a long-term relationship with his or her business customer, it was deemed they have a good perspective from which to respond to survey. To reduce any inconvenience and enhance the response rate, researchers visited both the business customer and salesperson and conducted the survey on-site.

In a second stage (Time 2), conducted one year after the first, the same salespeople were visited again and questionnaires were collected on-site. In the first stage, of 300 salespeople approached, 166 participated in the surveys. However, in the second stage, 103 participated in the surveys. Thus, the final matched data set consisted of 103 business customer-salesperson dyads in which the same respondents completed across both stages. The retained sample of 103 was compared with respondents excluded from the analysis to assess non-response bias, given their failure to complete surveys across both years. This result is not significant ($p > .05$). Furthermore, the total sampling frames were compared with the respondent pool in each year. Again, these results are not significant ($p > .05$).

Measurement

The instrument was prepared in English and then translated into Korean by a professional translator. An English back-translation was conducted by an additional translator, and this back translation was compared with the original version. Remaining ambiguities were resolved by several scholars who had mastered both English and Korean (Brislin, 1980). The measures are based on existing scales where available (see the Appendix). All items were measured at Time 1 for customers except for customer well-being which was measured at Time 2 for salespeople. To assess customer value creation in-role and extra-role behavior, Yi and Gong (2013)'s items were adapted.

To measure customer value creation in-role behavior, customers were asked to rate the extent to which they showed required and expected behaviors for the business. To measure customer value extra-role behavior, customers were asked to rate the extent to which they helped and assisted their salespeople. Responses were rated on a seven-point Likert scale ranging from 1 ("never") to 7 ("all the time").

To assess customer self-determination, the basic-need-satisfaction-at-work scale (Edward L. Deci *et al.*, 2001; Van den Broeck *et al.*, 2010) was used and the wording was adapted slightly to accommodate the context of this study. Customer self-determination was modeled as a second-order construct with customer autonomy, competence, and relatedness as first-order factors. Similarly to the original scale, the adapted scale measured customer autonomy (3 items; e.g., "I feel free to express my ideas and opinions in this job"), customer competence (3 items; e.g., "I really master my tasks at my job"), and customer relatedness (3 items; e.g., "At work, I feel

part of a group”). Responses were rated on a seven-point Likert scale ranging from 1 (“totally disagree”) to 7 (“totally agree”).

Customer role stress was modeled as a second-order construct with customer role conflict, customer role ambiguity, and customer role overload as first-order factors. Customer role conflict was measured by a three-item scale from Arnold *et al.* (2009), which was originally developed by Rizzo *et al.* (1970). A seven-point Likert scale was used, ranging from 1 (“very false”) to 7 (“very true”). Customer role ambiguity was measured by a three item scale from Singh (1998), which was originally developed by Rizzo *et al.* (1970). A seven-point Likert scale was used, ranging from 1 (“very true”) to 7 (“very false”). Finally, customer role overload was measured by a three item scale from Singh (1998), which was originally developed by Beehr *et al.* (1976). The items were rated on a seven-point Likert scale, ranging from 1 (“strongly disagree”) to 7 (“strongly agree”).

Customer value is a construct that involves a customer’s functional and hedonic outcome that is created through customer’s workplace experience. Four items were developed to measure this construct. The items were rated on a seven-point Likert scale, ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Customer well-being is a construct that involves the extent to which customers become better off in terms of quality of life and happiness from their job. Three items were developed to measure this construct. The items were rated on a seven-point Likert scale, ranging from 1 (“strongly disagree”) to 7 (“strongly agree”).

Relationship quality was measured by averaging responses to three dimensions: trust, commitment, and satisfaction. Customer-salesperson relationship trust, commitment, and satisfaction were measured using a scale adapted from Kaufman *et al.* (2006). The items were rated on a seven-point Likert scale, ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Interpersonal attraction was measured by averaging responses to two dimensions: salesperson likability and similarity. Customer-salesperson interpersonal attraction was measured using a scale adapted from Doney and Cannon (1997). The items were rated on a seven-point Likert scale, ranging from 1 (“strongly disagree”) to 7 (“strongly agree”).

Results

SmartPLS (Ringle *et al.*, 2005) was used to validate the measurement model and test the hypotheses. A bootstrapping method with 1,000 re-samples was conducted to test for path significance. The composite reliabilities for all variables exceed the .70 level, and the average variance extracted for all variables exceed the .50 level, demonstrating that each construct has acceptable psychometric properties. The convergent validity of the scales is supported as all indicators load significantly ($p < .05$), with greater than .70 on their hypothesized factors. Furthermore, the square root of the average variance extracted for each construct exceeds the correlations of the construct with other model constructs (see Table 1), supporting discriminant validity of the constructs (Hair *et al.*, 2014).

Please insert Table 1 about here

The percentages of explained variance (R^2) for customer self-determination, customer role stress, customer value, and customer well-being are .18, .21, .47, and .11 respectively, which indicate an acceptable explanatory power of the model (Hair *et al.*, 2014). A bootstrapping method with 1,000 re-samples was also conducted to

test mediation, moderating, and relative importance hypotheses (Hair *et al.*, 2014; Henseler and Chin, 2010; Zhao *et al.*, 2010). Table 2 provides an overview of the results.

Customer self-determination mediates the relationship between customer value creation in-role behavior and customer value ($\beta = .07, p < .05$) and customer self-determination mediates the relationship between customer value creation extra-role behavior and customer value ($\beta = .12, p < .05$). Results support H₁ and H₂. Customer role stress mediates the relationship between customer value creation in-role behavior and customer value ($\beta = .09, p < .05$), providing support H₃. In addition, customer role stress mediates the relationship between customer value creation extra-role behavior and customer value ($\beta = .13, p < .01$), supporting H₄.

The interaction between customer value creation in-role behavior and relationship quality does not affect customer self-determination ($\beta = .13, p > .10$). However, the interaction between customer value creation extra-role behavior and relationship quality positively affects customer self-determination ($\beta = .16, p < .05$). Thus, the data only partially support H₅. However, the interaction between customer value creation in-role behavior and relationship quality negatively affects customer role stress ($\beta = -.41, p < .05$) and the interaction between customer value creation extra-role behavior and relationship quality negatively affects customer role stress ($\beta = -.19, p < .05$). Thus, the data fully support H₆.

The interaction between customer value creation in-role behavior and interpersonal attraction positively affects customer self-determination ($\beta = .19, p < .10$). However, the interaction between customer value creation extra-role behavior and interpersonal attraction does not affect customer self-determination ($\beta = -.16, p > .10$). Thus, the data only partially support H₇. However, the interaction between customer value creation in-role behavior and interpersonal attraction negatively affects customer role stress ($\beta = -.17, p < .10$) and the interaction between customer value creation extra-role behavior and interpersonal attraction negatively affects customer role stress ($\beta = -.30, p < .01$). Thus, the data fully support H₈.

H₉ predicts that the effect of the interaction between customer value creation in-role behavior and relationship quality on customer self-determination is weaker than the effect of the interaction between customer value creation extra-role behavior and relationship quality on customer self-determination. This hypothesis is confirmed by the data ($\Delta\beta = .29, p < .05$). H₁₀ predicts that the effect of the interaction between customer value creation in-role behavior and relationship quality on customer role stress is stronger than the effect of the interaction between customer value creation extra-role behavior and relationship quality on customer role stress. This hypothesis is confirmed by the data ($\Delta\beta = .22, p < .10$).

H₁₁ predicts that the effect of the interaction between customer value creation in-role behavior and interpersonal attraction on customer self-determination is stronger than the effect of the interaction between customer value creation extra-role behavior and interpersonal attraction on customer self-determination. This hypothesis is confirmed by the data ($\Delta\beta = .21, p < .05$). Finally, H₁₂ predicts that the effect of the interaction between customer value creation in-role behavior and interpersonal attraction on customer role stress is weaker than the effect of the interaction between customer value creation extra-role behavior and interpersonal attraction on customer role stress. This hypothesis is not confirmed by the data ($\Delta\beta = .47, p > .10$).

Insert Table 2 about here

Discussion

This study contributes to academic research in several ways. First, this study provides empirical evidence in support of the service dominant logic that “the customer is the value creator, and a firm facilitate[s] value for its customers (p. 138)” (Grönroos and Voima, 2013). Furthermore, this study enriches the existing customer value creation literature by providing clarification about the both positive and negative effects of customer value creation behavior on customer value. In addition, this study pays attention to the implication of customer value creation behavior on customers themselves, by focusing on customer well-being as the consequence of customer value; not by focusing on firm profitability such as financial performance and customer loyalty (Guo *et al.*, 2013). Previous research on customer value creation has mainly focused on exploring the antecedents in business-to-customer context. However, this study examines the consequences of customer value creation behavior in business-to-business context. Despite the substantial research on customer value creation behavior in business-to-business context, empirical research investigating the linkage between customer value creation behavior and customer value is extremely rare.

The consequence of customer value creation on customer value is more complex than previously stated. The findings of this study confirm the notion that the customer is the value creator. However, value creation behavior produces positive effects on customer value only if the effect of mediating role of customer self-determination is stronger than the effect of mediating role of customer stress. If not, customer value creation behavior produces negative effects on customer value. Furthermore, the results show that the extent of customer value creation significantly depends on the interaction between customer value creation behavior and relationship related characteristics such as relationship quality and interpersonal attraction. Given the characteristics of long-term customer-supplier relationships in business-to-business markets, the choice of these moderators are fully justified. Customers have a better chance of exploiting the increasing positive and decreasing negative effects of customer value creation if they remain sensitive to relationship quality and interpersonal attraction with their suppliers.

Interestingly, this study also reveals that the necessities of distinguishing between customer value creation in-role and extra-role behavior. Although, previous research argues that these two types of customer value creation behavior should be differentiated from each other (Bettencourt, 1997; Groth, 2005; Yi and Gong, 2013), no research has ever empirically confirmed the usefulness of such a distinction, and confirmed their theoretical arguments. More specifically, this research finds some interesting patterns, including that the relative importance of moderating effects depends on customer value creation in-role and extra-role behavior. For example, the interaction effect of customer value creation in-role behavior and relationship quality on customer self-determination is found to be weaker than the interaction effect of customer value creation extra-role behavior and relationship quality on customer self-determination. In contrast, this pattern of relative importance is found to be opposite in the case when the dependent variable is customer stress. However, when interpersonal attraction is considered as moderator, these patterns of relative importance of interaction terms between customer value in-role and extra-role behavior are also completely reversed. These results justify the necessity of distinguishing between customer value creation in-role and extra-role behavior.

However, previous research has focused on only one aspect of customer value creation behavior in-role versus extra-behavior, or combined them as one construct, which produces biased and inconsistent results. By bridging the link between customer value and customer well-being, this study contributes to customer value creation literature and empirical research on customer well-being. Customer well-being has been a topic of recent attention in the management literature (Guo *et al.*, 2013). However, little research has been undertaken to investigate antecedents of customer well-being. This logic is also in line with the service dominant logic, which argues that “value creation entails a process that increases the customer’s well-being, such that the user becomes better off in some respect (p. 134)” (Grönroos and Voima, 2013).

For managers this study offers several takeaways. First, given the mediating effect of customer self-determination and customer role stress, customers must monitor and review the current level of these variables in their resource allocation decision making processes. For example, customers could report periodically on their level of self-determination and role stress. Moreover, suppliers should focus on how to increase customer self-determination and how to reduce customer role stress. For example, suppliers need to emphasize and intervene where necessary regarding the management of these psychological processes during customer interactions. Second, given the result that the extent of customer value depends significantly on the interaction between customers and suppliers, customers should consider how well they fit current or future suppliers in terms of relationship quality and interpersonal attraction. Customers could further benefit from considering the match and fit congruence with their suppliers. Third, to ensure an effective customer value creation process, suppliers need to identify customers who actively engage in value creation behavior. They might want to have more business with these customers. They also need to train their customers so that they can better engage in value creation behavior (Chan *et al.*, 2010).

Finally, this study shows that customers are responsible for their own well-being. Given the results of this research, regardless of much assistance suppliers can provide, customer value creation behavior is the ultimate driver of customer well-being. In order to improve customer well-being, customers need to have good relationship with their suppliers and proactively engage in value creation behavior (Guo *et al.*, 2013). In summary, this study confirms that the customer is the value creator and the supplier is a facilitator of value for the customer (Grönroos and Voima, 2013).

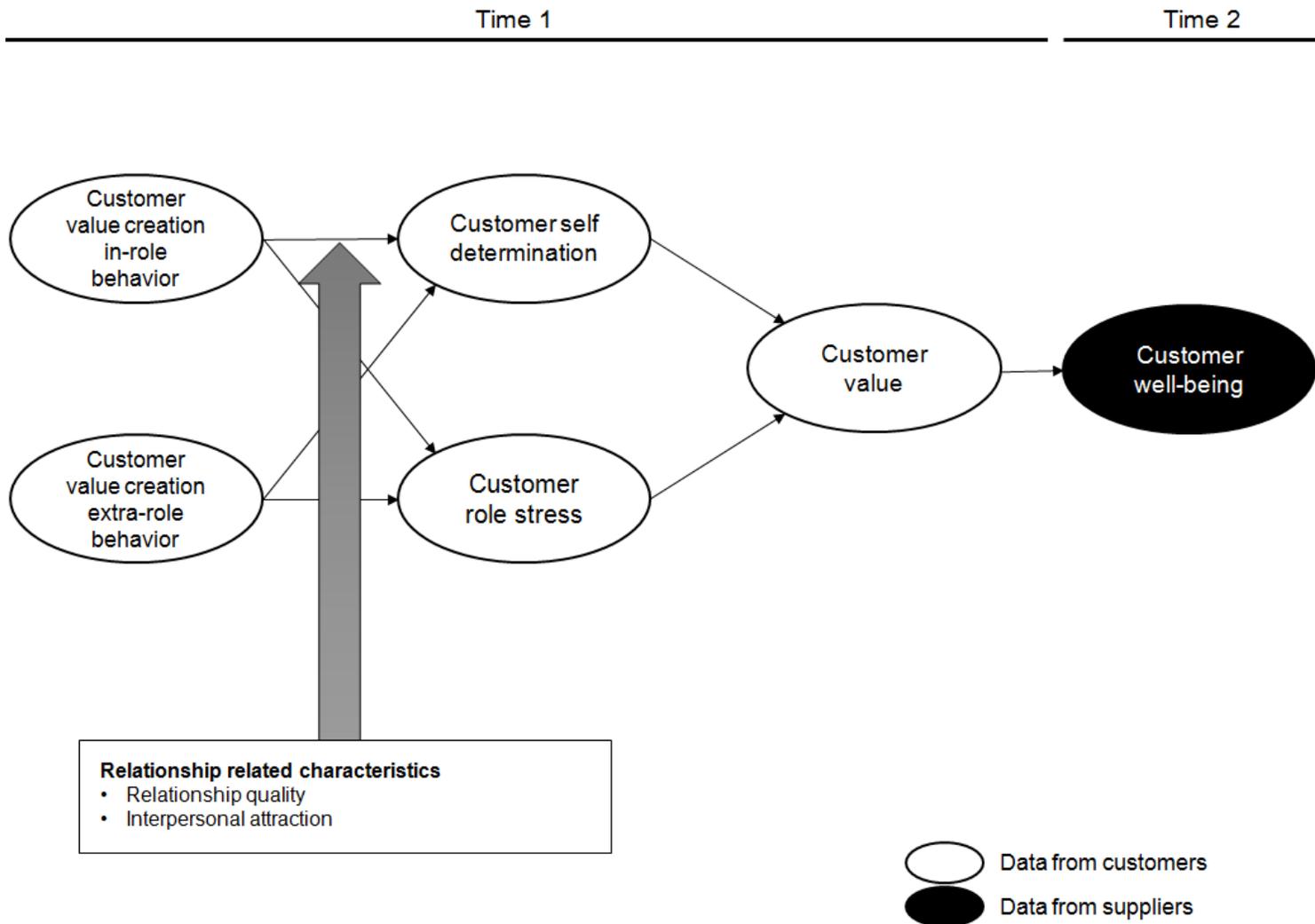


Figure 1. Conceptual model

Table 1. Reliabilities and correlations

Variable	Mean	SD	CR	1	2	3	4	5	6	7	8
1. Customer value creation in-role behavior	5.23	1.01	.92	.89							
2. Customer value creation extra-role behavior	5.71	1.09	.94	.37	.90						
3. Customer self-determination	5.29	1.28	.79	.19	.39	.76					
4. Customer role stress	5.84	1.10	.95	.25	.41	-.56	.92				
5. Customer value	5.16	1.43	.96	.15	.18	.59	-.61	.93			
6. Customer well-being	4.95	1.14	.92	.14	.01	.22	-.18	.33	.89		
7. Relationship quality	5.56	1.14	.89	.44	.49	.38	-.53	.33	.21	.86	
8. Interpersonal attraction	5.55	1.24	.93	.06	.24	.35	-.30	.42	.46	.22	.88

Notes: The diagonal is square root of the average variance extracted, SD = standard deviation, CR = composite reliability.

Table 2. Results of the structural model

Path	Path coefficient (β)
H ₁ : Customer value creation in-role behavior → customer self-determination → customer value	.07*
H ₂ : Customer value creation extra-role behavior → customer self-determination → customer value	.12*
H ₃ : Customer value creation in-role behavior → customer role stress → customer value	.09*
H ₄ : Customer value creation extra-role behavior → customer role stress → customer value	.13**
H _{5a} : Customer value creation in-role behavior x relationship quality → customer self-determination	.13 ^{n.s.}
H _{5b} : Customer value creation extra-role behavior x relationship quality → customer self-determination	.16*
H _{6a} : Customer value creation in-role behavior x relationship quality → customer role stress	-.41*
H _{6b} : Customer value creation extra-role behavior x relationship quality → customer role stress	-.19*
H _{7a} : Customer value creation in-role behavior x interpersonal attraction → customer self-determination	.19 ⁺
H _{7b} : Customer value creation extra-role behavior x interpersonal attraction → customer self-determination	-.02 ^{n.s.}
H _{8a} : Customer value creation in-role behavior x interpersonal attraction → customer role stress	-.17 ⁺
H _{8b} : Customer value creation extra-role behavior x interpersonal attraction → customer role stress	-.30**
H ₉ : Customer value creation in-role behavior x relationship quality → customer self-determination < customer value creation extra-role behavior x relationship quality → customer self-determination	.29*
H ₁₀ : Customer value creation in-role behavior x relationship quality → customer role stress > customer value creation extra-role behavior x relationship quality → customer role stress	.22 ⁺
H ₁₁ : Customer value creation in-role behavior x interpersonal attraction → customer self-determination > customer value creation extra-role behavior x interpersonal attraction → customer self-determination	.21*
H ₁₂ : Customer value creation in-role behavior x interpersonal attraction → customer role stress < customer value	.47 ^{n.s.}

creation extra-role behavior x interpersonal attraction → customer role stress

H₁₃: Customer value → customer well-being

.40 ***

+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$; n.s. not significant

Appendix

Measurement items

Customer value creation in-role behavior

I performs all the tasks that are required when I work with this salesperson.

I adequately completes all the expected behaviors when I work with this salesperson.

I fulfill responsibilities to the business when I work with this salesperson.

Customer value creation extra-role behavior

I assist this salesperson if he or she needs my help.

I help this salesperson if they have problems.

If this salesperson makes a mistake, I help him or her solve the problem.

Customer self-determination

Customer autonomy

I feel free to express my ideas and opinions in this job.

The tasks I have to do at work were in line with what I really want to do.

I feel free to do my job the way I think it could best be done.

Customer competence

I really master my tasks at my job.

I feel competent at my job.

I am good at the things I do in my job.

Customer relatedness

I really feel connected with other people at my job.

At work, I felt part of a group.

At work, I can talk with people about things that really matter to me.

Customer role stress

Customer role conflict

I receive incompatible requests from two or more people.

I receive an assignment without adequate resources and materials to execute it.

I have to do things that should be done differently.

Customer role ambiguity

I feel certain about how much authority I have.

I have clear, planned goals and objectives for my job.

I know how my performance is going to be evaluated.

Customer role overload

I am not given enough time to do what is expected of me on my job.

It often seems like I have too much work for one person to do.

The performance standards on my job are too high.

Customer value

My job offers value for money.

My job is well secured.

My job gives me pleasure.
My job gives me enjoyment.

Customer well-being

The quality of life of my customer becomes better.
The happiness of my customer becomes better.
The peace of mind of my customer becomes better.

Relationship quality

Trust

This salesperson has been frank in dealing with me.
This salesperson does not make false claims.
I trust this salesperson.
This salesperson is trustworthy.

Commitment

The relationship that I have with this salesperson ...
is something I am very committed to.
is something I intend to maintain for the long-term.
is something I really want to maintain.
deserves my maximum effort to maintain.

Satisfaction

I am delighted with my overall relationship with this salesperson.
I would like my relationship with this person to continue in the coming year.
It is a pleasure dealing with this salesperson.

Interpersonal attraction

Salesperson likability

This salesperson is friendly.
This salesperson is always nice to me.
This salesperson is someone I like to have around.

Salesperson similarity

This salesperson shares similar interest with me.
This salesperson has values similar to me.
This salesperson is very similar to me.

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