Customer engagement behaviour drives customer knowledge. Exploratory analysis of Polish banking industry.

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Abstract:

Customer knowledge is an important source of value because firms use such knowledge to make marketing decisions and maintain dialogue with customers. The literature has not sufficiently investigated the role of customer knowledge in marketing research, which has resulted in a limited understanding of its current antecedents and consequences.

The aim of this article is to identify the customer engagement behavior factors determining the transfer of customer knowledge value (CKV). Exploratory factor analysis and multivariate regression analysis showed that customer social impact and propensity to create positively impact CKV, while propensity to modify the offer weakens the relationship.

Keywords: customer knowledge, custome knowledge value, customer engagement

1. Intruduction

Customer knowledge (CKV) in this article is understood as a composition of skills and knowledge communicated by customers in the form of opinions and suggestions. Customer knowledge is achieved when a current customer is actively involved in improving firm's products or services by providing feedback or suggestions (Kumar, V. Pansari, 2016). It takes at least two forms in literature. Occurs as knowledge from customer (Gibbert et al., 2002) or customer knowledge value (Kumar, V. Pansari, 2016; Pansari & Kumar, 2017). This article uses the name of customer knowledge value – CKV.

Customer knowledge value is part of the concepts related to customer co-creation, such as value co-creation (Vargo et al., 2008), customer participation in new product or service development (Hoyer et al., 2010), customer participation (Fang, 2008, James Lin & Huang, 2013) and customer involvement (Feng et al., 2016). The essence of these concepts is to describe the role and importance of customer's ideas participation in the process of creating or co-creating a product, service or process in a company.

2. Theoretical backgroud

Although CKV is widely used in research as propensity to give feedback, articles rarely identify its antecedents. Research mainly shows these antecedents as the cause of other phenonema (Aghamirian et al., 2015; Shafiq et al., 2011; Tseng & Pin-Hong, 2014). Celuch at al. used conditional process analysis to test the hypothesized mediating and moderating relationships. Results showed that retail employee customer-oriented behavior is mediated by customer social benefit perceptions to influence feedback. Further, social benefit perceptions will interact with the level of customer continuance commitment to impact feedback. Specifically, the impact of social benefits will be stronger when commitment to the retailer is higher (Celouch, Robinson, Walsh, 2015). Moreover, organisational learning in relation to service improvement is influenced by the interplay between the way data are gathered through customer feedback mechanisms and implemented at a branch or business unit level. The implementation depends on attitudes of middle management towards such mechanisms (Caemmerer, Wilson, 2010).

The articles attempted to identify the antecedents of the concepts described above, so they indirectly searched for the reasons for customer involvement in sharing ideas. These articles divide antecedents of these concepts into customer characteristics, companies initiatives and environment (Verhoef et al., 2010). This article regards customer characteristics. Customer involvement as information source (CIS) or innovators (CIN) is determined by customers needs heterogenuity while co-developers (CIC) is determined by and their needs tacitness (Cui & Wu, 2016). More knowledgeable customers are more involved (Hamza, 2015). Lead user's involvement does not suport customer knowledge development (Jin & Chih-Yu, 2011). Innovation's self-efficiacy impacts customer knowledge development (Wang & Lin, 2012).

Research shows that customers with a higher level of differentiation of needs and a higher level of product knowledge are more likely to pass their opinions and suggestions to companies. In addition, Kumar and Pansari write about CKV as an element of customer engagement (CE), listing its other elements such as customer lifetime value (CLV), customer refferal value (CRV) or customer influence value (CIV). They also ask questions about the mutual relations between them.

3. Research framework

Considering the above, this article attempts to identify CKV antecedents understood in terms of Kumar and Pansari (Pansari & Kumar, 2017). The goal is to identify the relationship of particular customer engagement value (CEV) elements of the Kumar's concept with CKV (Kumar et al., 2010). The additional elements applied in the model are: the tendency to modify the product/service used (MOD) and the creative potential of the customer (CREAT). Figure 1 presents the conceptual model of the research.

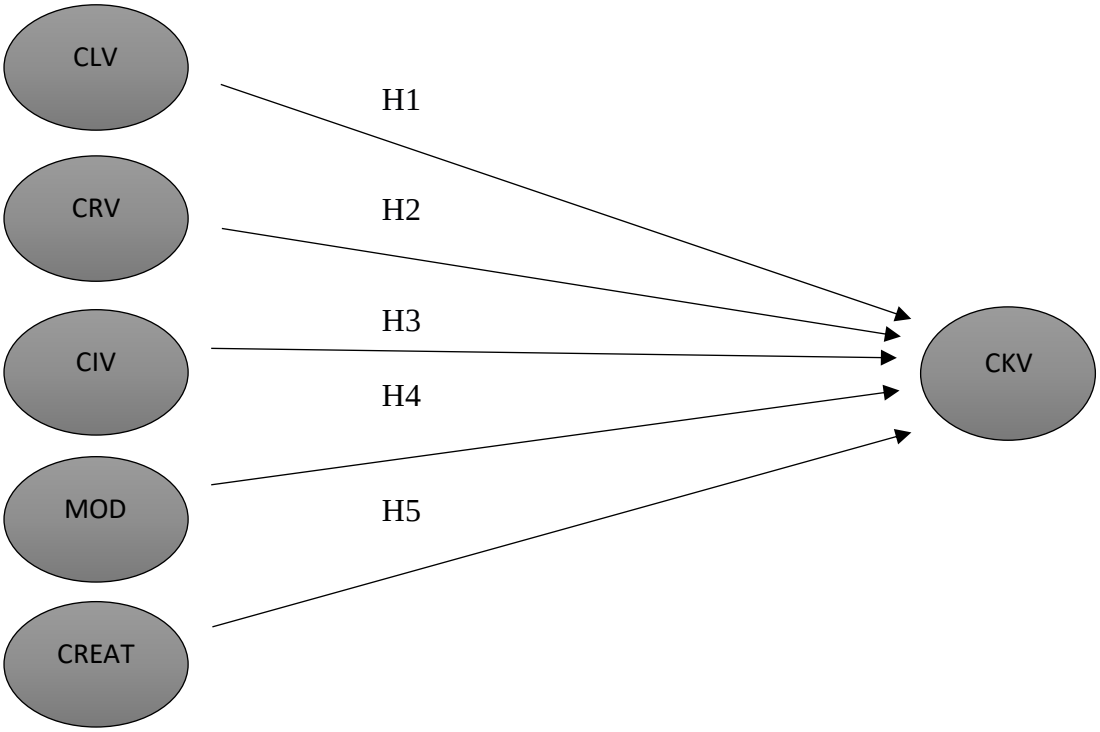

Figure 1. Customer engagement items according to Kumar and Pansari, 2016.

Table 1 presents the hypotheses:

Hypothesis 1	The greater the customer lifetime value, the greater the customer knowledge value
Hypothesis 2	The greater the customer refferal value, the greater the customer knowledge value
Hypothesis 3	The greater the customer influence value, the greater the customer knowledge value
Hypothesis 4	The greater the propensity to modify the offer, the greater the customer knowledge value
Hypothesis 5	The greater the propensity to create the offer, the greater the customer knowledge value

Table 1. Research hypotheses

The research is exploratory, therefore the model is simplified. It was tested among customers of the banking industry as building customer relationship to a high degree.

4. Methodology

The survey was conducted on a group of 201 customers of various banks using CATI method with the random digit dialing (RDD) technique in October 2019. The customers were mainly regular customers (median lenght of relationship with a bank = 9.0), with a small majority of customers for whom the bank was not the first (51,7%), mostly women (52,7%), with secondary (44,8%) and higher education (35,3%), living mainly in the countryside (39,8%) and in small towns, up to 50,000 inhabitants (25,9%).

The variables included in the hypothetical model regard customer engagement behavior concept come from the work of Kumar and Pansari ((Kumar, V. Pansari, 2016; Pansari & Kumar, 2017). The contents of individual items are presented in Table 2.

CLV (customer lifetime value)
1. I will continue buying the products/services of this brand in the near future.
2. My purchases with this brand make me content
3. I do not get my money's worth when I purchase this brand
4. Owning the products/services of this brand makes me happy
CRV (customer refferal value)
1. I promote the brand because of the monetary referral benefits provided by the brand.
2. In addition to the value derived from the product, the monetary referral incentives also encourage me to refer this brand to my friends and relatives.
3. I enjoy referring this brand to my friends and relatives because of the monetary referral incentives
4. Given that I use this brand, I refer my friends and relatives to this brand because of the monetary referral incentives
CIV (customer influence value)
~~1. I do not actively discuss this brand on any media~~
2. I love talking about my brand experience
3. I discuss the benefits that I get from this brand with others.
4. I am a part of this brand and mention it in my conversations.
CKV (customer knowledge value)
1. I provide feedback about my experiences with the brand to the firm
2. I provide suggestions for improving the performance of the brand.
3. I provide suggestions/feedbacks about the new product/services of the brand
4. I provide feedback/suggestions for developing new products/services for this brand.

Table 2. Customer engagement items according to Kumar and Pansari, 2016.

The following statistics tested the quality of the presented variables using exploratory factor analysis (EFA) made with the principal axis method (Table 3).

Variable	K-M-O test	Cronbach's-Alfa	Variance explained (after modifications)
CLV	0,726	0,768	59,573
CRV	0,660	0,905	79,754
CIV	0,775	0,947	90,709
CKV	0,821	0,910	79,669

Table 3. Exploratory factor analysis results of customer engagement items according to Kumar and Pansari, 2016.

All presented scales were rated as good (CLV) or very good (the rest of the scales). Only the CIV scale required one item to be removed (as seen in Table 1). MOD and CREAT variables were newly created on the basis of a three-step procedure. In the first step, based on the analysis of the literature related to customer knowledge, 326 items were identified that operationalized this knowledge. In the second step, 9 CRM managers selected 21 items, that operationalized customer's creative potential (face validity). In the third step, the study among 5 marketing academic-researchers identified the potential for modification (6 items) and creativity (6 items) (content validity). Table 4 presents the final set of items.

Propensity to MODIFY the offer (MOD)
1. I know, how to modify the product I use
~~2. I provide information/feedback for the products I use~~
~~3. I feel, that I help in the offer modification in terms of the products I use~~
~~4. I like to suggest new solutions for the products I use~~
5. I can show how to improve the offer in terms of the products I use (REV)
6. I know what could work better for the products I use
Propensity to CREATE the offer (CREAT)
1. I feel needed as new offer contributor
2. I prefer helping firms to create new offers that having a leisure time
3. I like to create the offer
~~4. I give the feedback if asked (REV)~~
5. I like to feel that I co-create something
6. I could give a good advice

Table 4. MOD and CREAT operationalization.

After eliminating selected items that did not meet its assumptions, exploratory factor analysis gave the following communalities results (Table 5).

Communalities			
MOD1	0,775	CREAT1	0,577
MOD5rev	0,527	CREAT2	0,443
MOD6	0,779	CREAT3	0,765
		CREAT5	0,793
		CREAT6	0,481

Table 5. EFA communalities

The following statistics tested the quality of the presented variables using exploratory factor analysis made with the principal axis method (Table 6).

Variable	**K-M-O test**	**Cronbach's-Alfa**	**Variance explained (after modifications)**
MOD	0,716	0,901	84,029
CREAT	0,729	0,857	63,796

Table 6. Exploratory factor analysis results of MOD and CREAT

Based on the analysis above, it should be noted that the MOD model is very good while the CREAT model – satisfactory, especially the variance explained is not that high as for MOD one.

5. Results

Table 7 shows the Pearson's correlation matrix with descriptive statistics, while mean = 0; standard deviation = 1. Two bottom rows present skewness and kurtosis.

		CLVFAC	CRVFAC	CIVFAC	CKVFAC	MOD	CREAT
CRVFAC		.128					
	Sig. (2-tailed)	.071					
CIVFAC		.192**	.591**				
	Sig. (2-tailed)	.006	.000				
CKVFAC		.078	.407**	.651**			
	Sig. (2-tailed)	.273	.000	.000			
MODFAC		.109	.022	.283**	.295**		
	Sig. (2-tailed)	.124	.760	.000	.000		
CREATFAC		.116	.179*	.484**	.567**	.781**	
	Sig. (2-tailed)	.102	.011	.000	.000	.000	
	N	201	201	201	201	201	201
	Skewness	-.605	.721	.048	.385	1.070	.428
	Kurtosis	3.010	-.260	-.716	-.229	.946	.575

Table 7. Correlation matrix. MOD = MODFAC. CREAT = CREATFAC

Due to the exploratory nature of the study, it was carried out by means of regression analysis with the enter method. The model with five independent variables achieved the adjusted R square = 0.528, F (5.195) = 45.715; $p < 0.05$. Table 8 presents the detailed results of the analysis.

	B	Std. Error	Beta	t	Sig.	Tolerance	VIF	Hypotheses
(Constant)	5.705E-17	.048		.000	1.000			
CLVFAC	-.049	.050	-.049	-.985	.326	.958	1.044	Rejected
CRVFAC	.068	.061	.068	1.116	.266	.627	1.596	Rejected
CIVFAC	.424	.069	.424	6.122	.000	.492	2.031	Confirmed
MOD	-.254	.080	-.254	-3.188	.002	.371	2.695	Rejected
CREAT	.554	.087	.554	6.389	.000	.314	3.187	Confirmed

Dependent variable = CKVFAC. MOD = MODFAC. CREAT = CREATFAC
Table 8. Regression analysis results

The value of CKV is most positively determined by CREAT (Beta = 0.554), then by CIV (Beta = 0.424) and negatively by MOD (Beta = -0.254). The linearity coefficients do not indicate predictors colinearity and 3 variables turned out to be significant. The Durbin-Watson ratio is 1,89, witch fulfills the condition of 1 <D-W <3 (1.89) so there is no correlation of residuals. The problem is heteroscedasticity identyfied (Figure 2).

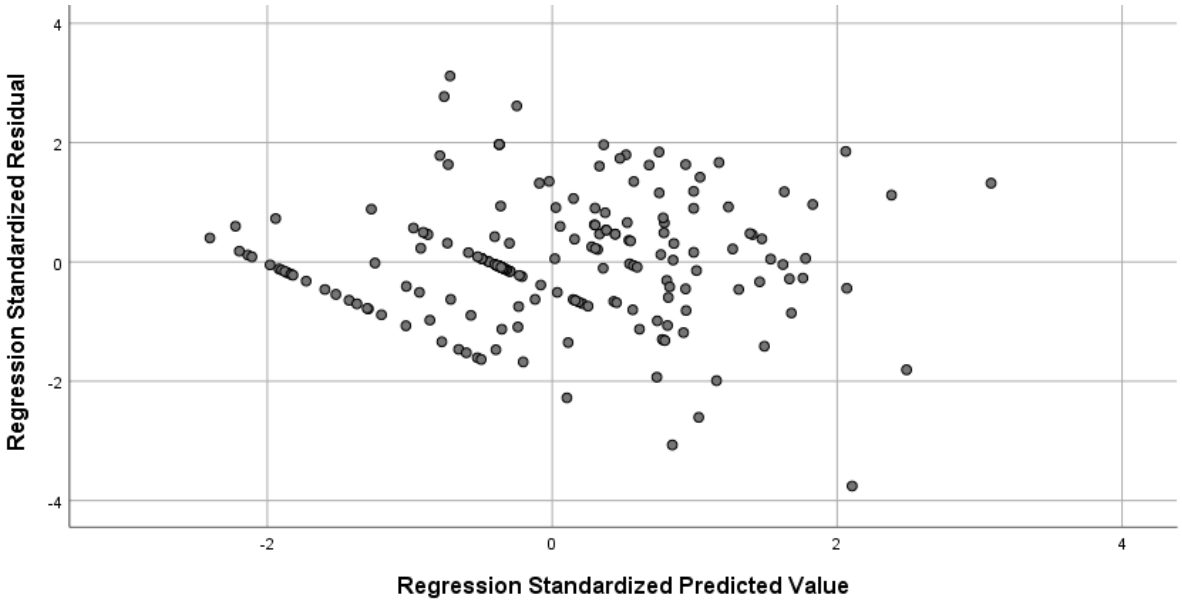

Figure 2. Regression analysis heteroscedasticity problem

Heteroscedasticity means that there is probably an interaction effect. This justifies further research on the identification of moderating factors.

6. Conclusions

Customers providing knowledge to the firm (CKV) are creative people (CREAT) and willing to take part in brand discussions (CIV). The propensity to modify (MOD) causes CKV weakening. Perhaps because that people with high MOD could be more conservative. On the other hand, purchasing engagement measured by CLV and propensity to recommend (CRV) do not translate into CKV. Perhaps they are more connected to the sphere of individual customer experiences than their social interactions.

7. Limitations

It is worth noting the likely effect of the interaction, which means that the introduction of an additional variable (s) can deepen the analysis. The study was conducted in banking industry on a sample of people from villages and small towns. Changing the respondent's profile as well as the industry, may lead to a change in the survey results towards a greater importance of CLV.

8. Managerial implications

The results indicate the importance of acquiring creative customers for long-term cooperation (the study was conducted in a group of clients with long bank-customer cooperation history, witch is > 9 years). Creative customers are people willingly cooperating with the company. Their identification can therefore be of key importance in building long-term, profitable relationship with customers far beyond their purchases.

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