

THE ROLE OF SOCIAL EFFECTS AND PERCEIVED RISK IN DRIVING PROFITABLE ONLINE CUSTOMER INTERACTIONS

Cambra-Fierro, Jesús; Melero-Polo, Iguacel; Sesé, Javier

Universidad Pablo de Olavide; Universidad de Zaragoza; Universidad de Zaragoza

ABSTRACT

The emergence of online channels has been of special relevance, as it has promoted a more active participation of consumers in the value creation process. In this study, we draw from the Stimulus-Organism-Response model to provide a theoretical understanding of the role played by two critical factors that drive online customer initiated interactions (OnCICs): social effects and perceived risk. In addition, we also investigate their consequences by establishing a direct link between these interactions and customer profitability. Merging longitudinal objective data with subjective data for a sample of 1,990 customers in the financial services and applying Partial Least Squares (PLS), the results reveal that social effects influence perceived risk. Perceived risk consequently promotes the development of OnCICs, while social effects reduce the need for such interactions. In addition, OnCICs help promote high-quality relationships and leads to higher performance.

Keywords:

Online customer initiated contacts (OnCICs); perceived risk; social effects; customer profitability; S-O-R model; financial services.

1. Introducción

The current technological context has dramatically changed the way in which customers and firms interact and transact (Perez, Bustinza, and Barrales 2015). From a marketing perspective, customer-firm interactions and the development of successful relationships represent a source of competitive advantage (Ramani and Kumar, 2008). In this sense the importance of interactions is indisputable as they are the starting point of the relationship and contribute to determining its future (Dwyer, Schurr, and Oh 1987). As a relationship is not built until a set of customer-firm interactions have taken place first, researchers and managers need to understand how factors such as the channel, profile and frequency may affect interactions and relationship as a whole.

Although these interactions can be initiated either by firms or by customers, nowadays, the growing importance of the customer in value-creation processes has made customers adopt a starring role in customer-firm interactions and, consequently, in customer-firm relationships (Beckers, Risselada, and Verhoef 2013). These customer-initiated contacts (CICs), understood as “any communication with a manufacturer that is initiated by a customer (or prospective customer)” (Bowman and Narayandas 2001, p. 281), are extremely useful for customers because they can contact the company at their convenience to request precisely the content they need, and are not spammed by any company messages.

Importantly, during the last two decades, new communication channels have emerged and have increased the number of contact points between customers and companies (Lemon and Verhoef 2016). Particularly, the Internet has transformed the way companies conduct day-to-day business (McLean and Wilson, 2016). The use of Internet and social media expands exponentially worldwide and nearly half of the global population uses the Internet. There are numerous reasons that explain the growing use of the online channel worldwide: it provides convenience for people from communication to shopping and makes access to the opportunities easier, empowers customers to learn from the experience of others, gives customized recommendations, and quickly finds and compares value propositions. It basically has become a powerful medium of communication that serves as a main vehicle for commercial and information seeking. Hence, online interactions achieve visibility, real-time contacts, ubiquity and social networking.

Companies are aware of the doubtless consolidation of online channels and, an increasing amount of them, have started to introduce and make use of these channels to facilitate online customer initiated contacts (OnCICs) and increase the level of customer engagement (Verhagen et al., 2015). However, despite the pervasiveness of these strategies, and the increasing number of companies that use online channels to interact with their customers, little is known about the reasons that lead customers to use these online channels to conduct online CICs (OnCICs), and their impact on the successful development of customer-firm relationships (Neslin and Shankar 2009).

To fill this gap, this study aims to provide an in-depth knowledge of the drivers and consequences of OnCICs drawing from the Stimulus-Organism-Response (S-O-R) model (Mehrabian and Russell, 1974). The S-O-R framework is grounded in environmental psychology and provides the theoretical basis for the understanding of customer behavior. The S-O-R theory states that a stimulus (S) influences people’s internal affective evaluations (O), which in turn leads to approach or avoidance responses (R) (Floh and Madlberger, 2013). That is to say, people are influenced by external stimuli and, after having evaluated all external information, they will take a decision. In our research, external stimulus is conceptualized as social effects. These social effects may influence internal states of the individual-organism- (i.e. level of perceived risk) which, in turn, may generate a behavioral customer response (OnCICs).

To our knowledge, scarce literature has studied how social effects (stimulus) may affect the level of perceived risk (organism) and there is not previous literature that simultaneously analyzes how social effects and perceived risk impact the development of OnCICs. Notably, this study also looks at the consequences of OnCICs, to understand their ultimate impact on the development of successful and profitable customer-firm relationships. While a higher number of interactions may be positive for promoting high-quality relationships, previous literature has also suggested that it may lead to negative results as it leads to increasing costs to manage the relationship (Campbell and Frei, 2010). Thus, this study intends to contribute to existing knowledge by (1) identifying whether the role of social effects (stimulus) may influence the level of perceived risk (organism), (2) analyzing the role of social effects

(stimulus) and the level of perceived risk (organism) in the development of OnCICs under the S-O-R model, and (3) understanding the financial consequences of OnCICs with an analysis of their impact on customer profitability.

2. Conceptual framework

To develop our model we draw from the S-O-R framework. The S-O-R framework assumes that the environment contains stimuli (S) that cause changes to people's internal, or organismic, states (O) (Vieira, 2013).

According to Jacoby (2002), stimulus consists of the environment as encountered by the individual at a particular moment in time. "This includes all things that we generally understand to be external stimuli namely products, brands, logos, ads, packages, prices, stores and store environments, word-of-mouth communications, newspapers, television, and countless of other impinging factors" (Jacoby, 2002; p. 54). Although some authors have just paid attention to stimuli related to the store or the e-store (Floh and Madlberger, 2013), in line with Jacoby (2002), the stimulus part of the S-O-R framework is understood as a more holistic concept that reflects any forces that can exert external stimuli for customers, independently of what type of stimulus is. As stimuli, we consider social effects, which are also believed to exert a strong influence in the way that consumers behave (Chen et al., 2014). Social effects are defined "as the transfer of information from one customer (or a group of customers) to another customer (or group of customers) in a way that has the potential to change their preferences, actual purchase behavior, or the way they further interact with others" (Libai et al., 2010; p. 269). It has been acknowledged for some time that the adoption of new behaviors or innovations may be substantially affected by social interactions with others (Nitzan and Libai, 2011).

The organism component (O) represents individuals' emotional reactions that occur from exposure to the stimuli of a particular environment (Vieira, 2013; Mehrabian and Russell, 1974). Jacoby (2002; p. 54) understand this organism component as "prior experiences, knowledge, beliefs, attitudes, predispositions, intentions, values, cognitive networks, schema, scripts, motives, the individual's personality, feelings...". Emotional states are important factors that help explain how customers evaluate alternatives (Wang and Chang, 2013). To this respect, perceived risk as an emotional state has been also considered as one of the most crucial factors explaining consumer behavior (Herrero and Rodríguez, 2010). It refers to the uncertainty and adverse consequences that customers feel regarding the possible negative consequences of using a product or service (Featherman and Pavlou 2003). As overall customer behavior involves risk, any action of a customer will produce consequences that he/she cannot anticipate (Dowling and Staelin 1994). In this research, the customer level of perceived risk will be influenced by the external stimuli and it will, in turn, impact the future customer response.

Finally, the last part of the S-O-R framework is the customer response (R). This response categorizes approach or avoidance behaviors. Basically, it refers to the desire to enter or leave a particular environment (Vieira, 2013). As Jacoby (2002) points, these responses have to be externally detectable (i.e. verbal or behavioral responses). In our study, we measure the customer response as the customer development (or not) of interactions through the online channel.

3. Hypotheses development

In this section, we discuss the expected relationships among the proposed variables in our model taking as reference the S-O-R framework and derive a set of hypotheses.

Social effects

In this study, we analyze social effects as external stimuli. Customers can experience external stimuli which affect emotional states and the developing of specific behaviors (Ryan and Deci, 2000). When customers are influenced by social effects, it is supposed that customers will develop less OnCICs. As customers can count on the trustful information provided by people with whom they have closer relationships, they will not need to search more information through additional OnCICs. Literature

also reflects that the social effects reduce the level of uncertainty, perceived risk, and the search efforts (Aldás-Manzano et al., 2009). Thus, we propose:

H1: Social effects will have a negative effect on perceived risk

H2: Social effects will have a negative effect on the development of OnCICs

Perceived risk

Customers can also experience internal processes to initiate contacts toward the company (Ryan and Deci, 2000). One key force that can also influence customers to contact the company is the level of perceived risk. When the levels of perceived risk are high, we expect customers to develop more OnCICs. With high risk, customers will tend to engage more in extensive information search. As the perception of risk is a serious concern for many customers (Aldás-Manzano et al., 2009), OnCICs will provide them with valuable and useful information that can especially help to reduce their levels of uncertainty. The literature also shows that there is more search activity in high-risk categories (Dowling and Staelin 1994). Hence, we hypothesize:

H3: The level of customer perceived risk will have a positive effect on the development of OnCICs.

OnCICs and customer profitability

We expect OnCICs to have an impact on customer profitability. Literature has highlighted that online channels are effective to create and maintain relationships with customers, but, however, little is known about whether customer contacts in online channels are also effective at promoting more profitable relationships (Verhagen et al., 2015), as an increase in contacts can also produce an increase in the cost of serving the customer (Campbell and Frei 2010). Manchanda et al. (2015) recently found that when customers develop online interactions toward the firms through virtual communities, they increase their levels of expenditure within the community.

To this respect, we propose that when customers initiate contacts is because they are already interested in having specific information regarding the company's products and services. This previous customer interest may probably lead to a transaction, which will have a positive impact on the level of customer profitability. Hence, we formulate:

H4: OnCICs will have a positive effect on customer profitability.

4. Methodology

We used customer data from a major bank in a European country. This database contained monthly customer information for a window of fifteen months. For these customers, we had access to objective information: (1) interactions-related data, which offered information about the number of OnCICs (in this study OnCICs refer to online informational inquiries made through the own bank's website); (2) transactional data, which included information about financial measures (service usage and customer profitability); and, (3) customer-level information (including demographics).

We also carried out a survey among a sub-set of the customers in the database to obtain subjective information about customers' perceptions. After designing the survey, a pre-test was carried out with financial services users (marketing students and researchers from several university marketing departments) in order to check the comprehensibility and adequacy of all the indicators included.

To carry out this study, we merged the objective data provided by the financial entity and the subjective data from the questionnaire. After removing customers with incomplete information or missing values in some of our key variables, we had a final sample of 1,990 customers. The 53% of our sample are men and the 47% women, the average of customer age is 53.7 years with a standard deviation of 13.9 and the average of customer income in our sample is between €24,000 and €35,000 per year.

A Partial Least Squares (PLS) structural equations analysis was carried out using SmartPLS software (version 3.0) in order to test the hypotheses. This methodology has recently been defended and employed in the literature (Henseler et al. 2014).

5. Results

5.1. Analysis of the measurement model

A reliability analysis for each item in relation to its construct was carried out in order to assess data quality. Our results demonstrate that all values overcome the 0.707 threshold set by Carmines and Zeller (1979). Reliability was also tested for each of the variables using Composite Reliability—considered superior to Cronbach's Alpha—. All constructs were reliable given that they are above the 0.8 benchmark (Nunnally 1978). A convergent validity analysis was carried out using the average variance extracted (AVE) (Fornell and Larcker 1981). The fact that the results were above the 0.5 benchmark shows that more than 50% of the variable is expressed through its indicators. Afterwards, results of discriminant validity were adequate via an AVE comparison of each construct (main diagonal) and the correlations between the variables. We observe that the square root of the AVE is higher than the correlations between constructs in each case (Fornell and Larcker 1981).

5.2. Analysis of the structural model

To assess the significance of the path coefficients, we used a bootstrapping procedure with 5,000 subsamples. This structural model was examined through the significance of the λ coefficients, which were significant at 1%.

Besides, the dependent variables also presented values exceeding the minimum thresholds with the model explaining the 10.95% of the perceived risk variance, the 8.95% of the OnCICs construct and the 21.7% of the customer profitability variance. To evaluate the predictive relevance of the model, we used the Stone-Geisser test. In this sense, the Q² value of this test for the three dependent variables was positive (Q²-Perceived risk=0.073; Q²-OnCICs=0.089; Q²-Customer profitability=0.217). Thus, it can be assumed that the dependent variables can be predicted by the independents. Additionally, we calculated the goodness of fit proposed by Tenenhaus et al. (2005), which showed a value of 0.3519 that can be considered to be a high value, according to Cohen (1988).

After developing these analyses, we analyzed the relationships between the constructs in the proposed model.

Firstly, we can confirm that social effects exert a significant negative effect on the level of perceived risk, thus hypothesis H1 is supported. Our model also establishes a direct (negative) relationship between social effects and the development of OnCICs, which supports our second hypothesis. This is in line with what we hypothesized. When customers are influenced by social effects, they perceive lower levels of risk and, as they have already collected the required information, they do not need to develop OnCICs. As customers can count on the trustful information provided by people with whom they have closer relationships, they will perceive a lower level of risk and they will not need to search more information through additional OnCICs.

Our third hypothesis is also confirmed because perceived risk positively and significantly influences the development of OnCICs. This evidences that, when there is not any external stimuli, the perception of risk leads customers to contact the company more.

As far as the consequences of OnCICs are concerned, H4 allows us to conclude that the higher development of OnCICs leads to a greater degree of customer profitability. This result provides us with a better understanding of the special bond that is created between customer-initiated contacts through the online channel and successful customer-firm relationships.

6. Conclusions

Nowadays, it becomes increasingly important to understand both the drivers and the consequences of online customer initiated interactions as more and more firms introduce online channels to manage the relationships with their customers, and as more and more customers begin to use these channels to interact and transact with firms. The proposed model is tested empirically in the financial services industry and the results enable us to make a number of contributions to existing knowledge as well as some practical recommendations.

References:

Aldás, J., Lassala C., Ruiz- Mafé, C. & Sanz, S. 2009. Key drivers of internet banking services use. *Online Information Review* 33, 672-695.

- Beckers, S., Risselada, H. & Verhoef P. C. 2013. *Customer engagement, a new frontier in customer value management*, in Handbook of Service Research, Edited by Roland T. Rust and Ming Hui Huang.
- Bowman, D. & Narayandas, D. 2001. Managing Customer-Initiated Contacts with Manufacturers: The impact on share of category requirements and word-of-mouth behavior. *Journal of Marketing Research* 38, 281-297.
- Campbell, D. & Frei, F. 2010. Cost structure, customer profitability, and retention implications of self-service distribution channels: Evidence from customer behavior in an online banking channel. *Management Science* 56, 4-24.
- Carmines E. & Zeller R. 1979. *Reliability and validity assessment*. In Sage University Paper Series on Quantitative Applications in the Social Sciences 07-017. Sage: Beverly Hills.
- Chen, Y., Tang, K., Wu, Ch., & Jheng, R. 2014. Predicting the influence of users' posted information for eWOM advertising in social networks. *Electronic Commerce Research and Applications* 13, 431-439.
- Dowling, G. & Staelin, R. 1994. A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research* 21, 119-134.
- Dwyer, F., Schurr, P. & Oh, S. 1987. Developing buyer-seller relationships. *Journal of Marketing* 51, 11-27.
- Featherman, M., & Pavlou, P. 2003. Predicting e-services adoption: a perceived risk facets perspective. *International Journal of Human-Computer Studies* 59, 451-474.
- Floh, A., & Madlberger, M. 2013. The role of atmospheric cues in online impulse-buying behavior. *Electronic Commerce Research and Applications* 12, 425-439.
- Fornell C, & Larcker D. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18, 39-50.
- Henseler J, Dijkstra T, Sarstedt M, Ringle C, Diamantopoulos A, Straub D, Ketchen D, Hair J, Hult T, & Calantone, R. 2014. Common beliefs and reality about PLS: comments on Rönkkö and Evermann. *Organizational Research Methods*, 17, 182-209
- Herrero, A., & Rodríguez, I. 2010. The influence of the commercial features of the Internet on the adoption of e-commerce by consumers. *Electronic Commerce Research and Applications* 9, 562-575.
- Jacoby, J. 2002. Stimulus-organism-response reconsidered: An evolutionary step in modeling (consumer) behavior. *Journal of Consumer Psychology*, 12 (1), 51-57.
- Lemon, K., & Verhoef, P. 2016. Understanding customer experience throughout the customer journey. *Journal of Marketing*, (in press; doi: 10.1509/jm.15.0420).
- Libai, B., Bolton, R., Bügel, M., Ruyter, K., Götz, O., Risselada, H., & Stephen. A. 2010. Customer-to-customer interactions: broadening the scope of word-of-mouth research. *Journal of Service Research* 13, 267-282.
- Manchanda, P., Packard, G., & Pattabhiramaiah, A. 2015. Social dollars: the economic impact of customer participation in a firm-sponsored online customer community. *Marketing Science* 34, 367-387.
- McLean, G., & Wilson, A. 2016. Evolving the online customer experience: is there a role for online customer support? *Computers in Human Behavior* 60, 602-610.
- Mehrabian, A., & Russell, J. 1974. *An approach to environmental psychology*. MIT press, Cambridge, MA.
- Neslin, S., & Shankar, V. 2009. Key issues in multichannel customer management: current knowledge and future directions. *Journal of Interactive Marketing* 23, 70-81.
- Nitzan, I., & Libai, B. 2011. Social effects on customer retention. *Journal of Marketing* 75, 24-38.
- Nunnally J. 1978. *Psychometric theory*. McGraw-Hill, New York.
- Pérez-Aróstegui, M., Bustinza-Sánchez, F., & Martínez-Martínez, D. 2015. Relationship between information technology competence and quality management. *Business Research Quarterly* 18, 4-17.
- Ramani, G., & Kumar, V. 2008. Interaction orientation and firm performance. *Journal of Marketing* 72, 27-45.
- Ryan, R., & Deci, E. 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-81.

- Tenenhaus M, Esposito V, Chatelin Y, & Lauro C. 2005. PLS path modeling. *Computational Statistics and Data Analysis* 48, 159–205.
- Verhagen, T., Swen, E., Feldberg, F., & Merikivi, J. 2015. Benefiting from virtual customer environments: an empirical study of customer engagement. *Computers in Human Behavior* 48, 340-357.
- Vieira, V. 2013. Stimuli–organism–response framework: A meta-analytic review in the store environment. *Journal of Business Research*, 66 (9), 1420-1426.
- Wang, J., & Chang, Ch. 2013. How online social ties and product-related risks influence purchase intentions: a Facebook experiment. *Electronic Commerce research and Applications* 12, 337-346.