

INVESTIGATING THE RELATIONSHIP BETWEEN PERCEIVED SACRIFICE AND B TO B CUSTOMER SATISFACTION IN THE INSURANCE INDUSTRY

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The Romanian insurance market expanded rapidly during the last two decades. Presently, the Insurance Supervisory Commission (CSA) reports 43 insurance companies and 567 insurance brokers. In this extremely dynamic and competitive environment, it is compulsory to control key elements that generate and maintain customer satisfaction.

Therefore, the hereto paper concentrates on the influence exerted by perceived sacrifice over the business to business customer satisfaction in the insurance industry. More precisely, the objective is to investigate the impact of effort, time and money spent by the business to business customer over satisfaction.

The concept of satisfaction has been intensively explored in the literature due to the fact that both practitioners and academics understood that it held a great significance in determining and preserving customer relationships and therefore, long-term profitability. In the service sector, much research has been conducted in the business to consumer context, especially concentrated on the relationship between service quality and satisfaction, whereas the business to business setting received less attention.

In order to explore the relationship between perceived sacrifice and satisfaction, a descriptive research design was used. A questionnaire was created using multiple items for measuring satisfaction and perceived sacrifice and also a number of identification variables. The survey concerned companies that had had benefitted from the services of an insurance broker at least once. Copies of the questionnaire were sent by email to company managers from all the main industries. A total of 85 answers were collected. With the help of SPSS tool, the two measurement scales were tested for reliability and validity and a factor analysis was performed. The next step was to calculate the composite scores for each of the two variables and to carry out the simple linear regression analysis. Our linear model considers that perceived sacrifice is the independent variable, whereas satisfaction is the dependant one.

The calculated R² indicated that perceived sacrifice explained 25% of satisfaction's variation. We also carried out a multiple linear regression in order to investigate the impact of each of the three components and we found that unlike price and time, effort doesn't have an influence on satisfaction.

The results obtained allow a better understanding of the relationship between perceived sacrifice and satisfaction making management decisions more effective.

Keywords: satisfaction, perceived sacrifice, services, business to business, insurance broker

JEL codes: M31, M39

I. Introduction

The hereto paper concentrates on the influence exerted by perceived sacrifice over the business to business customer satisfaction in the insurance industry. More precisely, the objective is to investigate the impact of effort, time and money spent by the business to business customer over satisfaction. We decided to focus on the services offered by the insurance brokers because this is a very divers and dynamic market. An insurance broker is an authorized legal entity who negotiates for clients insurance or reinsurance contracts and assists them during the prescribed

period, in order to establish circumstances, reclaim insurance damages, certify the insured's responsibility (CSA Annual Report, 2010: 39)

II. Literature review

Satisfaction is a positive or negative feeling that results when comparing expectations and performances related to a buying or to a consumption experience (Kotler and Keller 2012: 150; Lendrevie, Lévy and Lindon 2009: 858-859). It has a positive effect on developing customer loyalty, it represents an essential element that prevents customer defection and it holds a key role in building customer's attachment for the organization (Pop et al. 2006: 484-493). The research concerning satisfaction was developed in the context of an extended preoccupation for motivational studies. It is considered that the studies on satisfaction have been oriented towards elements that would explain the feeling rather than towards the mechanism of its formation, development or loss (Pop and Petrescu 2008: 107). However, satisfaction is not an end in itself, but a way to enable customer loyalty even though the relationship between the two key constructs is not linear (Kotler and Keller 2012: 150).

Fornell et al. (1996: 7-18) have created the American Customer Satisfaction Index, a type of market-based performance measure for firms, industries, economic sectors, and national economies. The authors consider that overall satisfaction is a fundamental indicator of the firm's past, current, and future performance (Fornell et al. 1996: 7). Satisfaction is perceived as "a key determinant of organizational success" with a positive influence over repeated sales and/or repurchases intentions and increase customer loyalty (Lewin 2009: 283).

Only a limited number of studies have dealt with business-to-business services and customer satisfaction (Lapierre, Filiatrault and Perrien 1996: 92; Homburg and Rudolph 2001: 15; Neumann, Williams and Khan 2009: 319-333). In the business-to-business context the relationships are long term oriented, enduring and complex, often bilateral, and the products are customized to buyer's needs, thus making him an active partner (Homburg and Rudolph 2001: 16). This particular implication of the business to business customer during the service delivery emphasizes the importance of a better comprehension of the determinants of satisfaction. Along with service quality, perceived sacrifice is considered to be one of them. Perceived sacrifice is a relatively new concept, developed by the authors in order to define costs supported by the customer with the purpose of receiving benefits such as service quality. The construct can be divided into monetary and nonmonetary sacrifice associated to money and respectively to effort and time (Lapierre, Filiatrault and Chebat 1999: 236). Some authors added other "cost" elements such as risk and associated them to the service quality dimensions in order to obtain a multidimensional measure of perceived value (Gil, Berenguer and Cervera 2008: 926). Others preferred discussing these three constructs separately and observe some of the exerted influences (Lapierre, Filiatrault and Chebat 1999: 238-240). A third category of studies uses the term of "value" when measuring items associated to perceived sacrifice such as price or quality-price ratio (Caruana, Money and Berthon 2000: 1346; Chen 2008: 712). Nevertheless, it is important to say that value remains a complex construct defined as trade-off between the costs supported by the customer and what he receives in return (Gil, Berenguer and Cervera 2008: 922; Chen 2008: 710).

The study of Lapierre, Filiatrault and Chebat (1999: 235-246) revealed that customers believe that what they give is more important than what they get. They are more conscious of both monetary and nonmonetary costs. Caruana, Money and Berthon (2000: 1348-1349) made the same observation but they only referred to the role of low price and its positive effects on satisfaction in the case of audit firms. However, no research has yet concentrated on the insurance industry and used this particular measurement scale.

III. Research methodology

According to Churchill's paradigm (Churchill 1979: 66), when developing better measures, one should first of all specify the domain of construct, generate the sample of items and collect the data in order to purify the measure and second of all, collect a new set of data, assess its reliability, assess its validity and establish norms. However, collecting data in the business to business environment is very difficult so we performed this action only once.

As stated previously, our survey concentrated on companies who were customers of an insurance broker. We prepared a questionnaire including 3 overall satisfaction statements (Fornell et al. 1996: 10). These items formulated for evaluating the overall satisfaction have been used by other researchers in their studies (Woo and Ennew 2005: 1183; Lewin 2008: 288). A 5-point Likert scale was employed for their measurement.

We have included three more items concerning the perceived sacrifice referring to monetary cost, time and effort spent by the customer when dealing with the insurance broker. All of them were adapted from Lapierre, Filiatrault and Chebat (1999: 240) and for their evaluation a 10-point scale was used. The last 5 questions concern classification elements such as the industry, the annual turn-over, the number of employees and the paid premium.

Because the survey takes place in several cities in Romania, all the original items had to be translated. In order to avoid confusion or ambiguous terms, the back translation method has been applied. We had the questionnaire pre-tested by 6 managers who discussed each item and expressed their opinion.

Copies of the questionnaire were sent by email to company managers from all the main industries: agriculture, constructions, transportation, engineering, retail, IT, online media, manufacture, consultancy, education. A total of 85 answers were collected during a period of four weeks. With the help of SPSS tool, the factor analysis was carried out in order to purify the measurement scales and also reliability and validity were tested.

IV. Results

Because our study deals with motivational aspects of behavior, the 85 observations collected are considered to be a sufficient sample for analysis, without any intention of generalizing the results. Considering that the measurement scales used had to be translated and adapted to a particular context, we tested their dimensionality, reliability and validity. The dimensionality was verified through the factor analysis.

The Bartlett Sphericity test allows testing the significance of the correlations between certain variables (Jolibert and Jourdan 2011: 298). The Kaiser Meyer and Olkin test uses both multiple and partial correlations between pairs of variables. A weak KMO coefficient indicates that the factor analysis is not appropriate (Jolibert and Jourdan 2011: 299-300). Table no. 1 shows that the value of the test KMO (0.716) is higher than 0.5 which means that the factor analysis is adequate (Malhotra et al. 2011: 546). Also, the statistic Chi-square for Bartlett's Test of Sphericity equal to 189.972 with 15 degrees of freedom is significant at 5% allowing us to reject the hypothesis of zero correlation between items (Malhotra et al. 2011: 543).

Table no. 1: KMO and Bartlett's Test

| | | |
|--|--------------------|--------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.716 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 189.97 |
| | df | 15 |
| | Sig. | .000 |

Made by the authors

For the factor analysis (Table no. 2) we chose the maximum likelihood method followed by a Varimax rotation. The Varimax rotation is one of the three orthogonal rotations that aim optimizing the loadings in order to see if the link with a factor is either very strong or very weak. As anticipated, two factors were identified corresponding to satisfaction (factor1) and to perceived sacrifice (factor 2).

The reliability was studied by calculating Cronbach's alpha for each of the two factors. The coefficients are 0.71 and 0.78 (Table no. 2) and because they are both higher than 0.70, we can state that reliability is acceptable (Nunnally 1978: 245). The content validity is rather subjective and doesn't have a formal indicator; it means that "the items look right" (Churchill 1978: 69); for that, the pre-test step allowed an improvement of the questionnaire. The convergent validity should be proved by measuring the traits with two different methods (Churchill 1978: 70) but in this case, given the business to business context we limited the research to only one method.

Table no. 2: Rotated Factor Matrix

| | Factor 1 | Factor 2 |
|------------------|----------|----------|
| V1 | | 0.797 |
| V2 | | 0.420 |
| V3 | | 0.896 |
| V4 | 0.848 | |
| V5 | 0.412 | |
| V6 | 0.753 | |
| Cronbach's alpha | 0.71 | 0.78 |
| Mean | 26.60 | 11.88 |

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In order to explore the link between the aforementioned variables we first calculated the composite scores in SPSS, and generated the scatter with regression line for the two variables that were obtained. The resulted graph (Fig. 1) points out a linear relation between satisfaction as dependent variable and perceived sacrifice as independent variable.

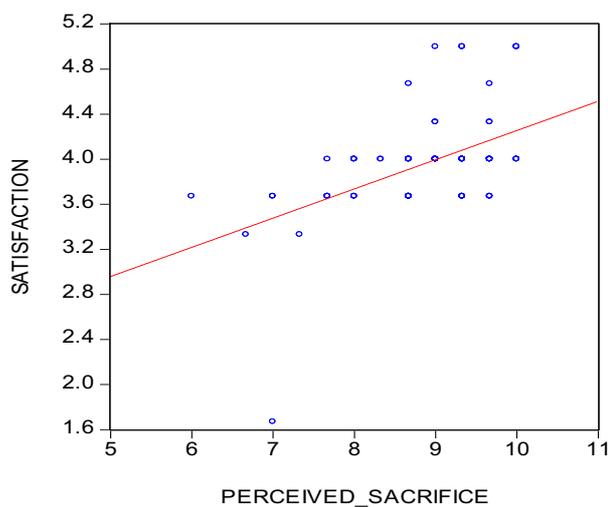


Fig. 1. The scatter with regression line

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Furthermore, the errors must have a normal distribution. The Jarque-Bera test with a probability exceeding 0.05 indicated that the null hypothesis of the normality of residual repartition should be accepted (Pecican, 2001: 94).

Through the OLS method, we then generated the estimation output for the simple linear regression (Table no. 3) and obtained that the probability for the t-statistic is 0.000 which means that we can reject the null hypothesis where the regression coefficient was zero. The estimated regression coefficient is positive showing that an improvement of perceived sacrifice will lead to a higher customer satisfaction. The calculated R^2 indicated that perceived sacrifice explained 25% of satisfaction's variation.

The Durbin-Watson test indicates the lack of autocorrelation because its value is close to 2. Another condition for the regression is the constant variance of the errors. The value of White's test was smaller than χ^2 for a probability of 5% and so we can accept the homoskedasticity hypothesis, which means that the errors have the same variance (Pecican 2001: 94).

Table no. 3: Estimation output for the simple linear regression

| Dependent Variable: SATISFACTION | | | | | |
|----------------------------------|-------------|-------------|-----------|---------------|-------------|
| Method: Least Squares | | | | | |
| Included observations: 85 | | | | | |
| Variable | Coefficient | t-Statistic | R-squared | Durbin-Watson | F-statistic |
| C | 1.66 | 3.81 | 0.25 | 1.82 | 28.07 |
| Perceived Sacrifice | 0.26 | 5.30 | | | |

Made by the authors

We followed the same steps for a multiple linear regression, where the independent variables are the three items composing perceived sacrifice. The t-statistic indicates that effort doesn't have a significant influence on satisfaction, unlike time and price (Table no. 4).

Table no. 4: Estimation output for the multiple linear regression

| Dependent Variable: SATISFACTION | | | | | |
|----------------------------------|-------------|-------------|-----------|---------------|-------------|
| Method: Least Squares | | | | | |
| Included observations: 85 | | | | | |
| Variable | Coefficient | t-Statistic | R-squared | Durbin-Watson | F-statistic |
| C | 1.59 | 3.70 | 0.30 | 1.84 | 11.40 |
| EFFORT | -0.006 | -0.10 | | | |
| PRICE | 0.16 | 3.63 | | | |
| TIME | 0.11 | 1.69 | | | |

Made by the authors

V. Conclusions

The research results indicated that there is a positive linear relation between customer satisfaction and an acceptable perceived sacrifice. When analyzing in detail this link, we find that effort is not significant, unlike time and price for the business to business customers. One possible explanation is that generally, the insurance brokers assist their customers on every level: before signing a contract and after, therefore they expect to benefit from the service with minimal effort. Customers consider it a fundamental condition. Also, the monetary costs seem to be more important than the time spend with the insurance broker. However, further research is needed in order to confirm these results.

Understanding the way in which determinants of satisfaction influence this complex construct allows managers to make effective decisions in the service industry, and particularly in the insurance business.

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