INTERDEPENDENCE BETWEEN RELATIONSHIP QUALITY DIMENSIONS

Mario Pepur
University of Split, Faculty of Economics
Matice hrvatske 31, 21000 Split, Croatia
mpepur@efst.hr

Zoran Mihanović and Josip Arnerić
University of Split, Faculty of Economics
Matice hrvatske 31, 21000 Split, Croatia
zoran.mihanovic@efst.hr; jarneric@efst.hr

Abstract

Tourism-dependent economy, unfavourable structure of accommodation and hotel capacity, seasonality of business and liquidity problems indicate importance of the relationships between hotels and banks in Croatia. Since the capital investments in new and modern capacities are necessity, the quality of their relationship would determine the future of Croatian economy as a whole in the long run. Regarding the capital investments, it is crucially important that cooperation between the employees in both business entities is based on the satisfaction, trust and commitment. In this way, every potential uncertainty as a consequence of the entity's actions could be minimized. In this paper, 356 tourist objects are hierarchically clustered according to the relationship quality dimensions for the purpose of testing the characteristics according to which the clusters significantly differentiate. Consequently, the interdependence between the observed relationship quality dimensions is examined.

Key words: *business to business marketing, relationship quality, hierarchical clustering*

1. INTRODUCTION

Tourism represents an extremely relevant element of the economy of Republic of Croatia. The number of hotel facilities is condition sine qua non of the tourist development of a destination. This has been proved by the estimates of the Central Bureau of Statistics (at www.bankamagazin.hr, 18 May 2010) which indicate that tourism accounts for 20% of the GDP and about 15% of the total number of employees. Development of hotel facilities requires large capital investments funded by bank loans in particular in bank-oriented economies such as the one existing in Croatia. Therefore, the paper's aim was to conduct a research on the relationship quality between hotels and banks that is highly important for the economy in the times of global financial crisis.

2. THEORETICAL BACKGROUND OF RELATIONSHIP QUALITY AT THE BUSINESS MARKET

Garbarino and Johnson (1999) indicate that the outcome of relationship marketing is best observed in the relationship quality among business entities. The higher the relationship quality among business entities, the more successful their mutual exchange turns out to be. Page and Sharp (1998, according to Myhal, Kang and Murphy, 2008) emphasise that the relationship quality lies in the focus of relationship marketing as the relationship quality lies in the focus of marketing services.

Crosby, Evans and Cowles (1990) were among the first who defined the relationship quality as a higher-order construct composed of at least two dimensions, trust in the salespersons and satisfaction with the salesperson. They stated that high relationship quality means that the customer is able to rely on the salesperson's integrity and has confidence in the salesperson's future performance because the level of past performance has been consistently satisfactory. However, after their pioneer results had been published, different authors started providing different definitions of relationship quality. It is obvious that authors are not unanimous on the type and the quantity of dimensions that relationship quality consists of and what would be the nature of relationship among them. Hennig-Thurau (2000) criticises the lack of explanation for the choice of relationship quality dimensions provided by Crosby, Evans and Cowles (1990) but he emphasises their intuition while defining relationship quality as a higher-order construct composed of "at least two dimensions". According to Smith (1998) the relationship quality is a higher-order construct that consists of numerous positive results of relationships which reflect an overall power of relationships as well as a measure for satisfied needs and expectations of parties involved in the relationship.

After a thorough review of the references focused primarily of relationship quality we would like to extract Myhal, Kang and Murphy's (2008) six dimensions, usually quoted in researches on this topic and named according to the frequency they have been named in the professional literature:

- trust,
- commitment,
- satisfaction,
- minimal opportunism,
- conflict (negative indicator) and
- communication.

However, most of the prominent authors (Caceres and Paparoidamis, 2007, Roberts, Varki and Brodie, 2003, Hsieh, Lin and Chiu, 2002, De Wulf, Odekerken-Schroder and Iacobucci, 2001, Smith, 1998, Hennig-Thurau and Klee, 1997) believe that relationship quality consists of three dimensions: trust, commitment and satisfaction with the relationship. Crosby, Evans and Cowles (1990) state that quality relationship represents

the utmost importance while offering professional services such as accounting and to many financial services due to the following facts:

  ➢ the service is complex, customized, and delivered over a continuous stream of transaction,
  ➢ many buyers are relatively unsophisticated about the service,
  ➢ the environment is dynamic and uncertain in ways that affect future needs and offerings.

Hsieh, Lin and Chiu (2002, according to Myhal, Kang and Murphy, 2008) concluded that establishing and maintaining the relationship that brings a continuous satisfaction with services offered to its users can lead to much better financial performances, trust and satisfaction among partners.

Satisfaction represents an extremely important quality relationship dimension (Caceres and Paparoidamis, 2007, Roberts, Varki and Brodie, 2003, Hsieh, Lin and Chiu, 2002, De Wulf, Odekerken-Schroder and Iacobucci, 2001, Smith, 1998, Leuthesser, 1997). The majority of the prominent authors (Mysen and Svensson, 2010, Gil-Saura, Frasquet-Deltoro and Cervera-Taulet, 2009, Spreng, Shi and Page, 2009, Olorunniwo, Hsu and Udo, 2006, Chumpitaz and Paparoidamis, 2004, Brady and Robertson, 2001), defined satisfaction as a positive, affective state resulting from the appraisal of all aspects of relationships among companies. The definition stated is in accordance with the network paradigm in which a change from a traditional transactional marketing to a more superior and useful relationship marketing can be observed which characterises the business-to-business market. At the same time the focus of definitions of satisfaction can be noticed. Hence, definitions of satisfaction focus not that much on individual transaction but on „all marketing activities directed toward establishing, developing, and maintaining successful relational exchange" of business entities within a marketing network (Morgan and Hunt, 1994). Gil-Saura, Frasquet-Deltoro and Cervera-Taulet (2009) claim that the only relevant definition of satisfaction on the business-to-business market would be the one based on the cumulative perspective.

Morgan and Hunt (1994) indicate that trust represents a key intermediary variable while business entities try to establish a long-term relationship. They claim that trust can exist only if business entities have confidence in integrity and reliability of another business entity. Anderson and Narus (1990, according to Morgan and Hunt, 1994) define trust as "the firm's belief that another company will perform actions that will result in positive outcomes for the firm as well as not take unexpected actions that result in negative outcomes." Dorsch, Swanson and Kelley (1998) state that despite the importance trust has for development of relationships at the business-to-business market, it cannot be automatically allocated to a particular business entity. However, it can be built on the long-term process of giving and keeping promises. Roberts, Varki and Brodie (2003) emphasise the importance of trust at the business-to-business market and state that its main function should be to reduce the risk of doing business.

Gil-Saura, Frasquet-Deltoro and Cervera-Taulet (2009) state that there are two concepts of defining trust based on the fact who is doing a trusting. They pointed out that only a few authors consider trust as trust

between persons in a relationship while many more accept the definition of trust based on the inter-organisational concept (among others Morgan and Hunt, 1994, Anderson and Narus, 1990). The authors quote Bloisa (1999) who questions trust of a business entity and claims that "inter-organizational trust is a short–hand for two sets of individuals each of which is trusting the organization of which the others are members". Commitment, as well as trust, is a part of the social exchange theory (Blau, 1964, Thibaut and Kelley, 1959). Although it represents a relatively new construct in marketing literature, Morgan and Hunt (1994) emphasized its central role within a marketing relationship. They define relationship commitment as an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it, that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely. The authors claim that commitment represents the key construct that differentiates between successful and unsuccessful relationships at the business-to-business market. However, Morgan and Hunt (1994) pointed out that trust represents conditio sine qua non of commitment. They indicate that commitment towards a business entity exists only if trust among business entities exists as well. Furthermore, they state that only under condition that both constructs, i.e. trust and commitment, are present, can marketing relationship be more efficient, productive and effective. In short, the authors state that the presence of trust and commitment can result in cooperative behaviour which is a prerequisite for a company to be successfully competitive at the current global market.

3. METHODOLOGY

Operationalisation of latent variables while assessing relationship quality between hotels and banks is based on operationalisation used in the previous researches conducted in this area. The research instrument is a questionnaire consisting of three different measurement scales, previously used and named in the professional literature, which include the following:

> ➢ scales for measuring trust and commitment (Morgan and Hunt, 1994) and
> ➢ scales for measuring relationship satisfaction (Kekre, Krishnan and Srinivasan, 1995).

Measurement scales have been slightly modified and adjusted to requirements of our research. However, the authors of the paper insisted on keeping the original integrity of the scales.

A single descriptive research was carried out on the total sample of 698 tourist facilities in the period of 1 January – 31 March 2010. The questionnaire respondents were financial managers of the tourist facilities who are responsible for negotiating the use of different financial products or services with financial institutions. Representatives of 356 tourist facilities completed the questionnaire which equals 51% of response rate.

4. RESEARCH FINDINGS

Taking into account the relationship quality dimensions, a hierarchical clustering of tourist facilities has been carried out in order to analyse characteristics which make the set clusters different from one another. After conducting the hierarchical clustering according to the trust variable, we gained two optimal clusters. Hence, a new dichotomous variable with two modalities of a characteristic has been set (reliable/unreliable). Characteristics of both clusters of tourist facilities are shown in Table 1.

Table 1.: Hierarchical clustering of tourist facilities according to the trust variable

	Trust					
	First cluster			Second cluster		
	Median	Mode	N	Median	Mode	N
1	6	7	302	3	3	54
2	6	7		3	3	
3	6	7		3	3	
4	6	6		3	3	
5	6	6		3	3	
6	6	6		3	4	

Source: authors

In order to test the difference in ordinal scales of measurement between two independent samples, i.e. two clusters of tourist facilities; the non-parametric Mann-Whitney test has been used. Results of the Mann-Whitney test (Table 2) shows that there is a statistically significant difference between two clusters with the p-value less than 1% when comparing degree of trust between reliable and unreliable tourist facilities. Degree of trust is rated within ordinal scale from 1 to 10. Table 1 proves that cluster analysis enabled us to gain a reliable classification of tourist facilities when comparing mode and median. It means that clusters are heterogeneous between themselves and homogeneous within a cluster itself. The first cluster, as it can be seen in Table 2, includes facilities with the high level of trust towards the main bank (1) and the second cluster includes facilities which do not trust the main bank (2). The first cluster consists of 302 facilities and the second one of 54.

Table 2.: Mann-Whitney test results on two clusters of tourist facilities according to trust

	Sum rank 1	Sum rank 2	U	Z	p-value	N_1	N_2
Trust	62008,00	1538,00	53,000	11,6304	0,000	302	54

Source: authors

Furthermore, we conducted cluster analysis of tourist facilities according to the distribution of answers in the questionnaire which refer to the questions about commitment to the bank. The aim of this analysis has been to identify facilities more committed to the bank and the ones less committed to the bank. Results of the hierarchical clustering prove that the optimal number of clusters is two because the biggest difference in distance exists when two clusters combined into one which created a new dichotomous variable with two

modalities of a characteristic. Table 3 shows the first cluster which includes facilities more committed to the bank (263 of them). The other cluster includes facilities less committed (93 of them). The non-parametric Mann-Whitney test has been used to test the difference between two clusters. Table 4 shows the results of the test which indicate statistically significant difference between two clusters.

Table 3.: Hierarchical clustering of tourist facilities according to commitment

	Commitment					
	First cluster			Second cluster		
	Median	Mode	N	Median	Mode	N
1	6	5	263	4	4	93
2	6	7		4	4	
3	6	6		4	4	
4	5	5		3	3	
5	6	6		4	3	
6	6	6		4	4	

Source: authors

Table 4.: Mann-Whitney test results on two clusters of tourist facilities according to commitment

	Sum rank 1	Sum rank 2	U	Z	p-value	N_1	N_2
Commitment	59005,00	4541,00	170,000	14,1373	0,000	263	93

Source: authors

Table 5.: Contingency table between trust and commitment

Commitment	Trust	
	First cluster	Second cluster
First cluster	250	13
Second cluster	52	41

Source: authors

Non-parametric Chi-square test for 2x2 table has been used to detect whether the observed relationship quality dimensions, i.e. trust and commitment are interdependent (Table 5). The high value of the chi-square test of 81,808 indicates that the observed dimensions are interdependent (significance level is less then 0,01).

Table 6.: Correlations coefficient between two dichotomous variables (Phi-coefficient)

		Value	Approx. Sig.
Nominal by nominal	Phi	0,479	,000
	Cramer's V	0,479	,000
	Contin. coeff.	0,432	,000
N		356	

Source: authors

Based on the chi-square value the correlations coefficient between two dichotomous variables can be calculated (the so called Phi-coefficient). According to the value of the Phi-coefficient of 0,479 (Table 6), the relationship between trust and commitment is a positive one and it is statistically significant.

Furthermore, in order to test differences in satisfaction with relationship between tourist facilities that are more committed and the ones less committed the non-parametric Mann-Whitney test has been used to detect differences between two independent groups of facilities.

Table 7.: Mann-Whitney test results between trust and relationship satisfaction

	Relationship satisfaction
Mann-Whitney U	432,000
Wilcoxon W	1917,000
Z	-11,504
Asymp. Sig. (2-tailed)	,000

Source: authors

The Mann-Whitney test results (Table 7) indicate statistically significant difference in relationship satisfaction with the bank between tourist facilities that are more committed and the ones that are less committed. As it has been expected, relationship satisfaction is higher within the group of facilities that reported a stronger trust towards its bank.

Table 8.: Results gained by a Mann-Whitney test on commitment and relationship satisfaction

	Relationship satisfaction
Mann-Whitney U	3995,500
Wilcoxon W	8366,500
Z	-10,017
Asymp. Sig. (2-tailed)	,000

Source: authors

Furthermore, The Mann-Whitney test results (Table 8) indicate statistically significant difference in relationship satisfaction with the bank between facilities that are more committed and the ones that are less. Relationship satisfaction is higher within the group of tourist facilities more committed to its bank.

Non-parametric test i.e. Kendall tau rank correlations are used to analyse the relationship between two dichotomous variables and the ordinal variables. Kendall tau rank correlation results (Table 9) indicate a positive relationship between relationship quality dimensions. Kendall tau rank correlation, that measures how strong a relationship between two variables is, indicates the correlation of medium intensity between relationship satisfaction and commitment. Furthermore, the correlation between relationship satisfaction and trust is also of medium intensity while the one between trust and commitment is relatively high. It is

important to emphasise that the Kendall tau rank correlation coefficient between trust and commitment equals to the Phi-coefficient of the correlation (Table 6).

Table 9.: Kendall tau rank correlation coefficient

		Correlations			
Kendall's tau_b	Relationship satisfaction	Corr. coeff.	1,000	,553(**)	,482(**)
		Sig. (2-tailed)		,000	,000
		N	356	356	356
	Trust	Corr. coeff.	,553	1,000	,479(**)
		Sig. (2-tailed)	,000		,000
		N	356	356	356
	Commitment	Corr. coeff.	,482(**)	,479(**)	1,000
		Sig. (2-tailed)	,000	,000	
		N	356	356	356

Notes: (**) correlation is significant at level of 1% (2-tailed)
Source: authors

5. SUMMARY

The empirical results of the current study show that there is a statistically significant difference between the observed clusters of tourist facilities. Consequently, cross tabulation between clusters proved that there is a significant correlation among relationship quality dimensions. Kendall tau rank correlation has once again proved that there are positive and statistically significant correlations among relationship quality dimensions.

REFERENCES

Caceres, R.C. and Paparoidamis, N.G. (2007), "Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty" *European Journal of Marketing*, Vol. 41, pp. 836 - 867.

Crosby, L.A., Evans, K.R. and Cowles, D. (1990), "Relationship Quality in Services Selling: An Interpersonal Influence Perspective" *Journal of Marketing*, Vol. 54, pp. 68 - 81.

Dorsch, M.J., Swanson, S.R. and Kelley, S.W. (1998), "The Role of Relationship Quality in the Stratification of Vendors as Perceived by Customers" *Journal of the Academy of Marketing Science*, Vol. 26, pp. 128 - 142.

Garbarino, E. and Johnson, M.S. (1999), "The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationship" *Journal of Marketing*, Vol. 63, pp. 70 - 87.

Gil-Saura, I., Frasquet-Deltoro, M. and Cervera-Taulet, A. (2009), "The value of B2B relationships" *Industrial Management & Data Systems*, Vol. 109, pp. 593 – 609.

Kekre, S., Krishnan, M.S. and Srinivasan, K. (1995), "Drivers of Customer Satisfaction for Software Products: Implications for Design and Service Support" *Management Science*, Vol. 41, pp. 1456 - 1470.

Morgan, R.M. and Hunt, S.D. (1994), "The Commitment-Trust Theory of Relationship Marketing" *Journal of Marketing*, Vol. 58, pp. 20 - 38.

Myhal, G.C., Kang, J. and Murphy, J.A. (2008), "Retaining customers through relationship quality: a services business marketing case" *Journal of Services Marketing*, Vol. 22, pp. 445 - 453.

Roberts, K., Varki, S. and Brodie, R. (2003), "Measuring the quality of relationship in consumer services: an empirical study" *European Journal of Marketing*, Vol. 37, pp. 169 - 196.

Smith, J.B. (1998), "Buyer-Seller Relationships: Similarity, Relationship Management, and Quality" *Psychology & Marketing*, Vol. 15, pp. 3 - 21.

Spreng, R.A., Shi, L.H. and Page, T.J. (2009), "Service quality and satisfaction in business-to-business services" *Journal of Business & Industrial Marketing*, Vol. 24, pp. 537 - 548.