



## **An investigation of the opportunistic relationships among shipping companies and ship-brokers**

Angelos Pantouvakis<sup>a</sup>, Stelios Krasanakis<sup>b</sup>, Christos Patsiouras<sup>c</sup>

<sup>a</sup>*University of Piraeus, Department of Maritime Studies, 80 Karaoli and Dimitriou Street 185 34, Piraeus, Greece, Email: angelos@pantouvakis.eu*

<sup>b</sup>*University of Piraeus, Department of Maritime Studies, 80 Karaoli and Dimitriou Street 185 34, Piraeus, Greece, Email: krasanakis\_st@hotmail.com*

<sup>c</sup>*University of Piraeus, Department of Maritime Studies, 80 Karaoli and Dimitriou Street 185 34, Piraeus, Greece, Email: chris\_patsiouras@yahoo.gr*

### **Abstract**

The aim of the paper is to present a conceptual framework which explores the application of relationship marketing in the maritime sector and especially the factors affecting shipping companies and ship-brokers' partnerships. In particular, this survey illustrates the relations among opportunism, affective and calculative commitment and trust. A special survey instrument was developed and tested with Exploratory Factor and Regression Analyses. Data from 109 ship-brokers were collected through personal interviews. The results finally indicated that the three constructs named affective commitment; calculative commitment and trust are statistically significant for opportunism. Based on the fact that there are few publication literature exploring the principles of relationship marketing in the maritime sector, this paper aims to find out how the above mentioned constructs are linked. On the other hand, practitioners are interested in getting informed about the collaborations between shipping companies - shipbrokers in order to lead to more focused and structured partnerships.

**Keywords:** Shipping B2B Marketing, Opportunism, Trust, Commitment

**JEL Classification:** M1, M3, L9

### **1. Introduction**

During the procedures of chartering and sale and purchase in shipping industry, many processes arise that have to be fulfilled by both shipbrokers and maritime companies.

The authors have observed -after an extended literature review- an effort for the development of powerful relationships as to flourish a sense of beneficial cooperation between them. That is to say, the importance of trust and partnerships in the competitive shipping area. Shipping marketing is a crucial sector of research for the enhancement and quality assurance of the partnerships. The core reason for the conduction of this research paper is the unexplored place of business relationships in the maritime sector. Business -to- business marketing in the shipping sector is really important as its analysis will give directions for further study in the well established relationship marketing literature.

The importance of close contact with customers is also important for a shipping company in order to develop competitive advantage as it should be noted the impossibility or difficulty of

service differentiation in the maritime transport sector. So, it is easy to understand that all people participating in the competitive and demanding maritime environment are an interesting part of the maritime supply chain which has not been studied yet. The purpose of the present study is to cover this gap in the shipping marketing literature.

Many studies have been conducted on the relationship marketing, especially in relations developed between enterprises. As a rebuttal to this point, it could be argued that many academic efforts have focused on the diverse relationships developed in cooperation with a consortium to informal relationships between suppliers and buyers. (Mavondo and Rodrigo 2001). In this research, brokers are the suppliers of the service provided while shipping companies are considered the buyers of this service. More specifically, this research focuses on theoretical and empirical documentation of a model constructed examines what affects opportunist relations and how variables as affective commitment, calculative commitment and trust impact shipping co-operations.

Finally, the main question arising is: *Is there opportunism or trust between shipping companies and shipbrokers?*

## **2. Theoretical background**

Businesses to business marketing publications have concentrated on collaborative relationships in order to achieve reciprocal financial benefits, which they wouldn't be able to obtain separately. Despite the fact that well built partnerships are needed when the market conditions are highly competitive, some cases exist where enterprises behave in a unclear way against their partners (Moberg and Speh, 2003) In business to business framework, exchange partners can sometimes behave in a pure self-interest seeking behavior that could have negative effects in the other party and is called opportunism (Hawkins *et al.*, 2009). Opportunism is defined as "self-interest seeking behavior with guile" and includes a variety of different behaviors such as cheating, breaching contracts and many others (Hawkins, 2008). A self-interest seeking practice that does not harm the other side does not constitute opportunism (Das and Rahnam, 2010). According to the idea of opportunism, in business collaborations there is a risk that one partner may behave opportunistically so as to take advantage from the other party in a situation that may occur. For example, some business units will try to behave in an opportunistic manner, if they want to change the terms of the business partnership to their own advantage. (Hobbs, 1996) In a few words, opportunism is forceful selfness and takes no account of the impact of the enterprise's actions on others. (Hawkins, 2008) The negative impacts and consequences of opportunism have been widely examined (Mysen *et al.*, 2011; Dahlstrom and Nygaard, 1999; Gassenheimer *et al.*, 1996; Parkhe, 1993) and the main consequences are: poor performance, higher costs, conflict and disagreements, absence of trust, commitment satisfaction and motivation (Hawkins, 2008).

Commitment has been explained in the literature as "the desire to continue the relationship and ensure its continuance" (Wilson, 1995) and "an implicit or explicit pledge of relational continuity between exchange partners" (Dwyer and Schurr, 1987). Commitment as a variable has been measured in a great extent in the literature and is a reliable index of long-term partnerships. Nevertheless, companies conserve their collaborations not always with the same reason and power. (Geykens *et al.*, 1996; Gilliard and Manning, 2002). In the present paper, the commitment in two different dimensions is examined. In particular, the authors focus their interest in calculative and affective commitment

Calculative commitment is the extent to which partners perceive the need to maintain a

relationship taking into account the significant expected costs of expiration or change that are associated with leaving a relationship (Geyskens *et al.*, 1996). Calculative commitment comes from a perception of calculation of costs and profits, is considered "cold" and includes the concepts of existing investments and available alternatives that already exist in a relationship (Allen & Meyer, 1990). Based on the above, the authors realize that calculative commitment is based on structural bonds that are created between two companies. So, all relations depending on calculative commitment focus on a cost benefit basis and after an analysis is decided whether it is likely or unlikely the two parts to continue the relationship. Based on the above mentioned definition about calculative commitment by Geyskens *et al.*, (1996) it is clear that calculative commitment is a clearly behavioral phenomenon and is much different from dependence. This difference lies on the structure of the relationship. In other words, dependence explores the structural elements that make a company more committed to a partner while calculative commitment explores the degree to which enterprises try to maintain their relationships with their partners and if these relationships are based on structural links. An emotionally committed company tries to continue a relationship because its employees are satisfied with their partners and their cooperation is rather pleasant. (Buckman, 1978) In other words, employees' experience gives them a sense of loyalty and belonging. (Jaros *et al.*, 1993).

On the other hand, affective commitment is an emotional state that a partner has developed regarding a relationship with another and is based on a sense of empathy and emotional connection between two partners. (Wetzels *et al.*, 1998). Affective commitment is caused when a person understands and fully adopts the principles of a company. (Morgan & Hunt, 1994). It should be noted that affective commitment has been extensively studied in the context of organizational behavior and is referring to the employee's connection, identification and involvement in the company (Meyer & Allen, 1997). This aspect of commitment has many benefits for a company as employees with strong emotional commitment contribute to the achievement of objectives and are less likely to leave. (Meyer & Allen, 1997). Unlike the affective commitment, calculative commitment states that a customer is forced to remain loyal despite his wishes, if the cost-benefit ratio forces him to do so. (Ruyter *et al.*, 1998) According to the literature between the two kinds of commitment, affective commitment seems to be more efficient in developing and maintaining mutually beneficial relationships between two partners. (Kumar *et al.*, 1994). Finally, it should be mentioned that a basic difference between the two types of commitment is that on the one hand, affective commitment is based more on desire while calculative commitment focuses mainly on the need by a partner to maintain the relationship after partners know both the positive and negative elements of the relationship.

### **3. Research hypotheses and methodology**

This paper aims to investigate the relationships among the four basic constructs mentioned in the theoretical section and how affective commitment, calculative commitment and trust (independent variables - x) can influence opportunism (dependent variable - y). The methodology followed for examining the relationships among these constructs in the shipping sector was based on already established and generally accepted models in the services marketing literature.

To begin with, shipping companies are characterized in their relations by the same rules and conditions characterizing all companies in the procedure of supply chain. Particularly in

services, there are suppliers, who are the providers of the service, and buyers, who are these who receive the payment for the services provided.

In shipping, the supplier of the service provided is the broker and the purpose of the service is to find “job” for the ship if dealing with the chartering or the purchase and sale process.

On the other side there is the buyer - recipient of the service, which is the shipping company. The purpose of our study is to investigate the relationships that are developed between affective and calculative commitment, trust and opportunism.

### **3.1 Affective commitment and Opportunism**

The theory of commitment - trust argues that commitment is the key for a company to achieve performance of inter-organizational relationships as commitment of a company leads to a synergistic behavior. (Leonidou, et al., 2008; Morgan & Hunt, 1994). But there are many kinds of commitment that could impact on a relationship.

According to Wetzels *et al.*, (1999) there is a positive relationship between cooperation in a partnership and emotional commitment. Kumar *et al.*, (1994) states that higher levels of emotional commitment affect less the opportunist behaviors. Additionally, in accordance to Liu *et al.*, (2010) commitment of a supplier indicates the emotional connection with the buyer. So, when the supplier is emotionally tied, the will of the buyer to invest in relation to the consolidation is strengthened. Therefore, the actions will be in the interest of the relationship and the decisions to be taken will include at least preoccupation supplier. According to Liu *et al.*, (2010) when the commitment of the supplier due to emotional reasons is increased, the opportunistic behavior of the buyer is reduced. So we can make the following assumption: Based on the literature review, the first hypothesis we make is:

***H1: The more affective commitment of the shipbrokers, the less opportunism of shipping companies.***

### **3.2 Calculative Commitment and Opportunism**

Special interest in the marketing literature has been given to calculative commitment. Some authors suggest that if there is excessive calculative commitment without affective commitment at all, this can cause negative consequences for a relationship. (Kumar *et al.*, 1994). According to Liu *et al.*, (2010) suppliers who have a strong calculative commitment, base their decisions mainly on economic grounds and are ready to leave a relationship if it does not provide the expected gains. According to Das & Teng, (1998) if there is such calculative commitment, buyer confidence will decline because of perceptions of risk of relationship's will.

Therefore the buyer can look for ways to protect the risk of the relationship and this can be achieved through opportunism. (Gulati, 1995; Ring & Van de Ven, 1992).

So we can assume that:

***H2: The more calculative commitment of the shipbrokers, the more opportunism of shipping companies.***

### 3.3 Trust and Opportunism

One of the main reasons for the success of a business relationship is the existence of trust. The more the participants of a transaction trust each other, the more they feel certain that the other company will behave in good faith and will be really interested in their cooperation. This leads to lower opportunistic behaviors. (Dyer and Chu, 2003)

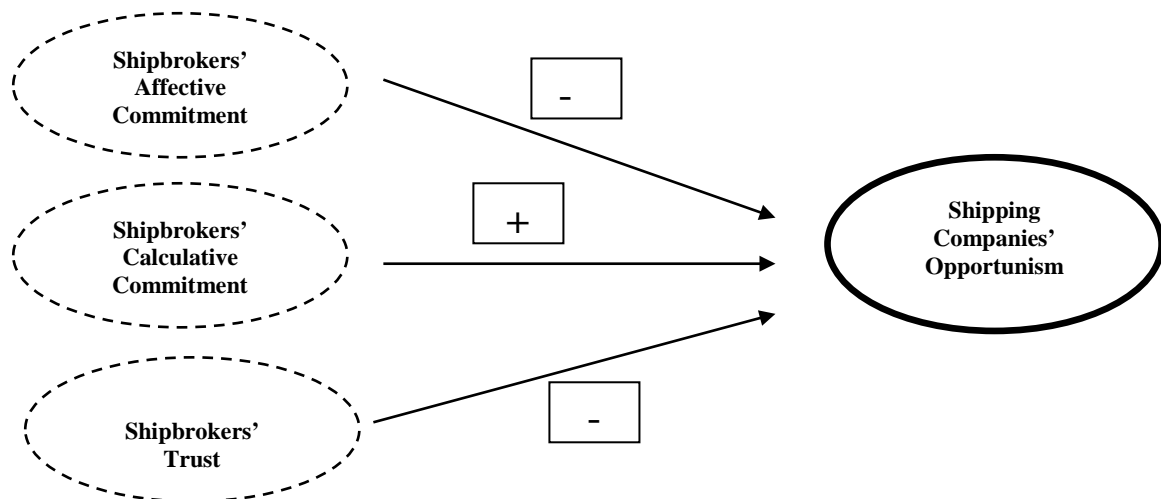
The reason that a company does not seek opportunist behavior is because will lose quite important privileges for the sustainability of the relationship. According to Liu *et al.*, (2010) there is a negative relationship between trust and opportunism in dyadic relationships between suppliers and buyers.

Based on the above, we make our final hypothesis:

**H3: The more trust of the shipbrokers, the less opportunism of shipping companies.**

The proposed model is presented in the Figure 1 below:

**Figure 1:** Conceptual framework



### 3.4 The questionnaire

A special survey instrument was developed for the present survey. In order to measure affective commitment, the 6 - item instrument, developed by Gounaris (2005) was adopted. Calculative Commitment was measured with the 3 – item work by Gounaris, (2005), and finally both trust and opportunism with the work of Liu et al., (2010). Trust was measured with a 5 – item instrument and opportunism with a 3 – item instrument respectively. Each item was measured on a 7 point Likert type scale ranging from 1 - “strongly disagree” to 7 - “strongly agree”.

### 3.5 Data Collection and analysis's description

The data collection method selected was the personal interview. It was requested that the questionnaire should be completed by the shipping company's executive in the chartering department. Finally, a sample of 109 respondents was used for further analysis.

Exploratory Factor Analyses were applied to refine the dimensions of each construct and Multiple Linear Regression Analysis was also performed in order to exam how opportunism is affected by the affective commitment, calculative commitment and trust. Both Exploratory Factor Analyses and Linear Regression Analysis were performed with the use of SPSS v. 22.0.

An exploratory factor analysis was performed to test whether all items load highly on each factor. The results of the principal components analysis with Varimax rotation indicate that the six items of affective commitment exhibit high loadings on one factor named affective commitment, the three items of calculative commitment on one factor named calculative commitment, the four items of trust on one factor named trust and finally the three items of opportunism on one factor named opportunism.

As displayed in Tables 1, 2, 3, and 4, the factor analyses of all constructs revealed an one - dimensional factor.

**Table 1**

Exploratory Factor Analysis for Affective Commitment

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,767
Bartlett's Test of Sphericity	Approx. Chi-Square	137,781
	Df	10
	Sig.	,000

	<b>Factor</b>
	1
Stay why enjoy working together	,832
Stay why philosophy matches	,742
Stay why we think positively	,712
Stay why we have positive expectations	,709
Stay why there is a loyal relationship	,635

**Table 2:** Exploratory Factor Analysis for Calculative Commitment

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,623
Bartlett's Test of Sphericity	Approx. Chi-Square	47,376
	Df	3
	Sig.	,000

	<b>Factor</b>
	1
High costs to change	,835
No worthwhile alternatives	,765
Hard to break the relationship	,709

**Table 3**

Exploratory Factor Analysis for Trust

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.797
Bartlett's Test of Sphericity	Approx. Chi-Square	266,451
	Df	10
	Sig.	,000

	<b>Factor</b>
	1
Though the circumstances change, we believe that they will be ready and willing to offer us assistance and support	,878
When it comes to things that are important to us, we can depend on their support	,831
When making important decisions, they are concerned about our welfare or interests	,817
We believe that their word is their bond	,775
Future decisions and actions will not adversely affect us	,735

**Table 4**

Exploratory Factor Analysis for Opportunism

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,598
Bartlett's Test of Sphericity	Approx. Chi-Square	101,542
	Df	3
	Sig.	,000

	<b>Factor</b>
	1
Sometimes breach informal agreements between our companies to maximize their own benefits	,905
Often fail to deliver promises, as described in the contract, for their own interests	,864
Sometimes hide part of the truth about certain things in order to protect their own interest	,675

In order to test the reliability of all scales, the authors used the Cronbach's  $\alpha$  estimate.

Cronbach’s  $\alpha$  estimate was 0.914 indicating excellent reliability of the data.

**4. Results and conclusions**

The purpose of our study was to exam all the relations among affective commitment, calculative commitment, trust and opportunism. The impact of the three extracted factors named affective commitment, calculative commitment and trust on opportunism was tested with the use of Multiple Regression Analysis. The dependent variable was opportunism and the independent variables were affective commitment, calculative commitment and trust.

The present study contributes to the existing literature by investigating the impact of affective commitment, calculative commitment and trust on opportunism between shipping companies and shipbrokers. This is the very first academic effort trying to connect these constructs in the maritime sector. The question that arises after an extended review of relationship marketing’s literature was if opportunistic behaviors from the side of maritime companies were observed to their shipbrokers.

The results of the regression (Table 5) showed that all three factors/ independent variables on opportunism are statistically significant (**R<sup>2</sup> adj. = 0.361**).

In particular, affective commitment is statistically significant for opportunism but the results –surprisingly- indicated strong and positive relationship between them, unlike what we expected (*H1 not supported*). The present finding was not expected and was not in correspondence with the literature. This findings may be due to the fact that affective commitment is an emotional state that a partner has developed regarding a relationship with another (Wetzels *et al.*, 1998). So, emotions may affect directly both employees and brokers.

Secondly, calculative commitment is statistically significant for opportunism and revealed positive relation on opportunism according to the literature and in accordance to the second hypothesis tested (*H2 supported*).

Finally, trust occurred negative strong relation to opportunism as the authors expected based in the literature (*H3 supported*).

The results are presented in more details, in the table below (Table 5):

$$\text{Opportunism} = f(\text{Affective Commitment, Calculative Commitment, Trust}).$$

**Table 5**

Adj. R2 = 0.361

	b
Affective Commitment → Opportunism	0.254**
Calculative Commitment → Opportunism	0.170*
Trust → Opportunism	- 0.611**

All beta values of the regression analysis are statistically significant. The two asterisks show significance in the .000 level and the one asterisk shows significance in the .005 level.

From the present research endeavour, many important findings have been emerged. Opportunistic relations are influenced by a series of factors. These factors are commitment (affective and calculative) and trust. Shipbrokers’ affective commitment appears to be



positively related to shipping companies' opportunism. A possible explanation to this finding may be the level of complacency between the two parties which can lead to opportunism or the uncertain environment in which transactions are performed. Another possible explanation may be the world economic unstable environment. The next interesting finding is related to calculative commitment. Shipbrokers' calculative commitment is a behavioural approach of commitment which focuses on the interest of the shipbrokers to shipping companies. In accordance to our expectations, calculative commitment is positively related to opportunism as it is clear that both sides take into consideration their personal interest.

Last but not least, trust is negatively related to opportunism because if a shipbroker trusts a shipping company with which traditionally cooperates, it is rather hard to feel that this shipping company will be opportunistic to him.

## **5. Limitations and suggestions for future research**

In the present research, some limitations have been discovered. The first limitation is related to the sample's characteristics. In particular, the shipbrokers included come from only two cities (Piraeus, 85% and London, 15%). Even if the sample includes data from two cities, these particular cities are the maritime pillars in Europe.

Another limitation arising from the present paper is that the interviewees are only from Greece. This may be a reason the first hypothesis was not supported, based on the country's environmental and economic uncertainty and instability.

A final limitation is the number of the responders. The number could be higher in order to lead to more deep analysis's methodologies such as confirmatory factor analysis and structural equation modelling.

To sum up, the authors can argue that despite these limitations, the present research is an initial effort and it is the very first taking place in the competitive and globalised maritime sector.

This survey is a start - point for both academics and practitioners to understand in depth the factors influencing shipping relations and behaviors among shipping companies and shipbrokers.

## **References**

- Allen, N. J., and Meyer, J. P. 1996. Affective, continuance, and normative commitment to the organization: An examination of construct validity, *Journal of vocational behavior*, 49(3), 252-276.
- Buckman, S. R., 1978. Selected jail standards: A comparative survey. *Just. Sys. J.*, 4, 100.
- Das, T. K., and Teng, B., 1998. Between trust and control: Developing confidence in partner cooperation in alliances, *Academy of Management Review* 23: 491 - 512.
- Das, T. K. and Noushi Rahman., 2010. Determinants of partner opportunism in strategic alliances: a conceptual framework, *Journal of Business and Psychology*, 25 (1): 55-74.
- Dahlstrom, R. and Nygaard, A., 1999. An Empirical Investigation of Ex Post Transaction Costs in Franchised Distribution Channels. *Journal of Marketing Research*, 36(2).
- Dwyer R.F., Schurr P.H., Oh S., 1987. Developing buyer - seller relationships. *Journal of Marketing*, (April), 51, 11-27.

- Dyer, J. H. and Chu, W., 2003. The Role of Trustworthiness in Reducing Transaction Costs and Increasing Information Sharing: Empirical Evidence from the United States, Japan, and Korea, *Organization Science* 14 (1), 57-68.
- Gassenheimer, J.B., Sterling, J.U. and Robicheaux, R.A., 1996. Long-term Channel Member Relationships, *International Journal of Physical Distribution & Logistics*, 26(5), 94-116.
- Geyskens, Inge, et al. (1996), The effects of trust and interdependence on relationship commitment: a trans-Atlantic study, *International Journal of research in marketing*, 13(4) 303-317.
- Gilliland, D.I., and Manning, K.C., 2002. When do firms conform to regulatory control? The effect of control processes on compliance and opportunism, *Journal of Public Policy & Marketing*, 21(2), 319-331.
- Gounaris, S.P., 2005. Trust and commitment influences on customer retention: Insights from business-to-business services, *Journal of Business Research* 58(2), 126-140.
- Gulati R. 1995a. Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances, *Academy of Management Journal* 38, 85-112.
- Hawkins, T.G., Wittmann, M.C. and Beyerlein M.M., 2008. Antecedents and consequences of opportunism in buyer-supplier relations: Research synthesis and new frontiers, *Industrial Marketing Management* 37(8), 895-909.
- Hawkins, T., Knipper, M.G. and Strutton, D., 2009. Opportunism in buyer-supplier relations: New insights from quantitative synthesis, *Journal of Marketing Channels*, 16 (1), 43-75.
- Hobbs, J. E. (1996). A transaction cost approach to supply chain management, *Supply Chain Management: An International Journal*, 1(2), 15-27.
- Jaros, S.J., Jermier, J.M., Koehler, J.W. and Sincich T., 1993. Effects of Continuance, Affective, and Moral Commitment on the Withdrawal Process: An Evaluation of Eight Structural Equation Models, *Academy of Management Journal*, 36(5), 951-995.
- Kumar, N., Hibbard, J.D. and Stern, L.W., 1994. The nature and consequences of marketing channel intermediary commitment, 94-115, *Marketing Science Institute*.
- Leonidou, L.C., Talias, M. A., and Leonidou, C.N., 2008. Exercised power as a driver of trust and commitment in cross-border industrial buyer-seller relationships, *Industrial Marketing Management* 37(1), 92-103.
- Liu, Y., Luo, Y., and Liu, T. (2008), Governing buyer-supplier relationships through transactional and relational mechanisms: Evidence from China, *Journal of Operations Management* 27(4), 294-309.
- Mavondo, Felix T., and Elaine M. Rodrigo, 2001. The effect of relationship dimensions on interpersonal and interorganizational commitment in organizations conducting business between Australia and China, *Journal of Business Research* 52(2), 111-121.
- Moberg, C.R. and Speh, T.W., 2003. Evaluating the relationship between questionable business practices and the strength of supply chain relationships, *Journal of Business Logistics* 24(2), 1-19.
- Morgan, R.M. and Hunt, S.D., 1994. The Commitment-Trust Theory of Relationship Marketing, *Journal of Marketing* 58, 20-38.
- Mysen, T., Svensson, G. and Payan, J.M., 2011. The key role of opportunism in business relationships, *Marketing intelligence and planning*, 29(4), 436-449.
- Parkhe, A., 1993. Strategic Alliance Structuring: A Game theoretic and transaction Cost Examination of Interfirm Cooperation, *The Academy of Management Journal*, 36(4), 794-829.
- Ring, P.S. and Van de Ven, A.H., 1992. Structuring cooperative relationships between organizations, *Strategic Management Journal*, 13, 483-498.
- Ruyter, K., Wetzels, M. and Bloemer, J., 1998. On the relationship between perceived service quality, service loyalty and switching costs, *International Journal of service Industry Management* 9(5), 436-453.
- Wetzels, M., de Ruyter, K. and van Birgelen, M., 1998. Marketing Service Relationships: The Role of Commitment, *Journal of Business & Industrial Marketing*, 13(4/5), 406-423.
- Wilson, D. T., 1995. An integrated model of buyer-seller relationships, *Journal of the academy of marketing science* 23(4), 335-345.