IMPACT OF SERVICE AND E-SERVICE QUALITY, PRICE AND IMAGE ON THE TRUST AND LOYALTY OF THE ELECTRONIC BANKING CUSTOMERS

Ilirjana ZYBERI

Doctor, Faculty of Economy, University "Eqrem Çabej", Gjirokastra, Albania izyberi@yahoo.com

Antoneta POLO

Doctor, Docent, Faculty of Economy, University "Eqrem Çabej", Gjirokastra, Albania neta_polo@yahoo.com

Abstract

In the era of globalization and increasing competition worldwide, banks are changing their strategies in order to reach customers around the world easier and cheaper. Banks have adopted modern technology to reduce costs and improve the quality of customer service as well as provide standardization of basic services. Albania has been a positive trend in the use of e-banking and the Internet as a new alternative for providing banking products and services. The purpose of this study is to measure the impact of service quality, quality of eservice, price factors and image have on the trust and loyalty of customers to banks and present some conclusions in order to improve the e-banking situation in Albania. The study is based on primary data collected from the administration of 400 questionnaires in three districts of Gjirokastra region. Data were analyzed using classical econometric models (linear multifactorial regression). From the multivariate analysis, used to see the relationship between trust and service quality, e-service quality, price and image, it resulted that e-service quality, image and price are important factors influencing customer trust, while quality of service does not appear to be statistically significant. All four of the above factors were taken into account to see their relationship with loyalty to banks. Multivariate analysis showed that all four factors are statistically significant in their impact on loyalty. These findings constitute a valuable contribution to the financial institutions, financial advisors, bank customers and prospective applicants.

Keywords: trust, loyalty, image, service quality, quality of e-services

JEL classification: E5

1. Introduction

Nowadays e-banking has become an integral part of modern banking due to lower transaction costs, twenty-four hour services, increased control over transactions, higher transaction volume in less time, of remote transaction facilities, and a much wider group of banking products and services. Internet technology has changed the design and manner of financial services and as a result the banking industry has made continuous innovation and leading ultimately to the idea of what is known as "online banking".

In real use of the Internet as a new alternative channel for the distribution of financial services has become a competitive necessity rather than just a way to achieve competitive advantage with the advent of globalization and fierce competition (Flavian, C., Torres, E., and Guinaliu, M. (2004); Gan, C and Clemes, M. (2006). Basically electronic banking involves the use of electronic means to transfer funds directly from one account to another. E-banking has brought about an evolution in the banking system, because it has become possible "creation" of a bank branch in everyone's home and is destined to develop further.

Compared to traditional banking, e-banking is a free and direct way to perform banking operations. There are many benefits of e-banking, such as simpler monitoring of bank accounts, buying and selling goods and services, paying various bills, participating in auctions, e.g. Amazon.com and E-Bay, money transfer from any place and at any time, cost reduction (MPCS, 1998; Sathye, 1999), time saving, etc.

Other benefits of e-banking include: no restrictions and barriers, but it is very convenient, services are provided at minimal cost, it has transformed traditional practices in the banking

sector; the only way to stay connected with customers in any country and at any time is through internet applications, it results in high performance in the banking industry through fast delivery of information from the consumer and service security; customers prefer using ebanking, because it saves time, makes it possible to use new products and services with lower tariffs on transactions and encourages the rotating management which is one of the most important dimensions of service quality in e- banking (Gonzalez et al, 2008; Singhal and Padhmanbhan 2008; Brodie et al, 2007; Williamson, 2006, Beer, 2006; Cooper, 1997; e IAMAI, 2006 and Jozefi et al, 1999).

2. Literature review

The use of electronic banking service by banks in recent years has been the center of many academic studies (Andreas - Nicholas Papandreou 2006). The focus of academic studies have undoubtedly been reasons or factors that make it necessary for such a development which no doubt can be called "historic" and may constitute a separate phase in the history of banking operations. Over the last ten years there has been a lot of research which has studied a large number of factors that affect the purpose of consumers to use internet banking. In the context of e-banking, literature review allows us to identify the factors that influence customer attraction in the use of e-banking.

Stewart (1999) argued that despite the advantages of e-banking is possible and that his failure was attributed primarily to a lack of trust of customers to electronic channels.

It is very difficult to analyze trust as a phenomenon and it can be almost impossible to analyze trust in the context of e-commerce due to the complexity and risk of e-commerce. Trust will be the deciding factor in the success or failure of e-banking. It is difficult to build an effective electronic payment system without having full confidence in banks, as customer deposits are a necessary component for this system to work.

Sathye (1999) and Polatoglu and Ekin (2001) found that the reliability dimension was an important determinant for customers who used electronic banking. Moreover, Sathye (1999), and Liao & Cheung (2002) have found that trust was positively associated with the use of electronic banking services. They reached the conclusion that the more confidently customers percept electronic banking service, the more possible it is that they will use electronic banking. Sadeghi and Hanzaee (2010) made up a model with seven factors as follows: comodity, accessibility, correctness, safety, necessity, bank image and website design, considering them as main indicators of quality perception of e-banking service by customers. Also, Yap, K et al. (2010) focused on the quality of traditional services and the features of the internet and their impact on building customer trust in e-banking.

The quality of electronic banking system services should become an important area of attention among researchers and bank managers due to the impact on business performance, lower costs, customer satisfaction, customer loyalty, and profitability (Seth et al., 2004).

2.1. Service quality

The most important factors influencing the selection of banks are the quality components of the services. All banks offer almost the same services, but to distinguish between banks we must note how these services are provided. Dabholkar et al. (1996) found that service quality is multidimensional. They found the direct impact of customer perceptions on performance levels on service quality, and that customer personal characteristics are important for value assessment. Studies from the service literature have highlighted the importance of quality perceptions and the relationship between service satisfaction and quality (e.g. Cronin and Taylor, 1992; Taylor et al, 1994). However, there is no evidence to suggest that service quality leads to customer satisfaction and helps to retain existing customers and attract new ones (Keiser, 1993; Lian, 1994a, b).

Nowadays, banks have tried to increase their performance that goes beyond service quality. They suggest what they call "service excellence" (Mahoney, 1994). Marsden (1993) suggested perfect service as an area with which firms can satisfy their customers and exceed their expectations. This has stimulated many manufacturing and service businesses to adopt programs such as TQM (total quality management) or CQI (continuous quality improvement) (James, 1989; Joseph, 1996).

In addition, measuring and evaluating the quality of services in the field of banking, including the banking industry has become very important due to changes in the banking environment. Banking has become more integrated globally, there is high competition but still, it is important for banks to know how their customers will perceive products and services.

2.2. E-Service quality

The quality of e-service is one of the key factors determining the success or failure of e-commerce (Santos 2003). Nowadays advances in information technology play a vital role in business. This has provided a completely new look to expand the range of products and services offered by Internet use. In addition, the emphasis is on building and maintaining customer relationships as the key to success in being competitive in e-commerce, which depends on the effective delivery of e-service quality. The banking industry today is moving towards providing integrated financial services due to strong competition and rapid technological change. Albanian banks are trying to think strategically by offering high quality products and services to satisfy their customers. Albanian banks consider these changes and try to apply new technologies to gain more market share by using the quality of E-service from the website by offering different types of services such as checking accounts and statements, transferring funds. , placement of fixed deposits, payment of bills, credit cards, loans and insurance payments, application for bank drafts and telegraphic transfers.

Kaynama and Black (2000) based on traditional SERVQUAL dimensions built a model to measure the quality of seven-dimensional service: pleasure, access, navigation, design, feedback, background, and personalization. Zeithaml (2002) develops a framework consisting of eleven dimensions used in the evaluation of e-service quality delivery which include: access, convenience, efficiency, flexibility, reliability, personalization, security, accountability, trust, aesthetics of the website and price knowledge.

2.3. Image

The image is described as an attitude (Hirschman et al, 1978). Moreover, Kennedy (1977) noted that the image has two main components, functional and emotional. The functional component is related to the tangible dimensions that can be easily identified and measured, while the emotional component is related to the psychological aspects that are the process by which customers compare the different qualities of firms (LeBlanc and Nguyen, 1996, and Nguyen and LeBlanc, 2001).

According to Kang and James (2004), a favorable and well-known image is seen as a valuable asset and in many respects the image has an impact on customers perception of the firms communication and operations. Kang and James (2004) explained that if a customer has a positive image towards the service provider, they tend to forgive the small mistakes made by the service provider.

2.4. Trust

Morgan and Hunt (1994) stated that trust exists only when one party has confidence in the trustworthiness and integrity of the other party. Doney and Cannon (1997) also added that the partner should also have the ability to continue to meet his obligations to customers within the cost-benefit relationship; so, the customer must not only anticipate positive outcomes but also believe that these positive outcomes will continue in the future. Researchers had focused on the essential role of trust in building and maintaining long-term relationships (Rousseau et al, 1998; and Singh and Sirdeshmukh, 2000).

This is also known in marketing theory as the basic policy in developing and maintaining long-term relationships (Crosby et al, 1990; Ritter, 1993; and Doney and Canon, 1997).

2.5. Loyalty

Loyalty is considered one of the keys to achieving company success and sustainability over time (Keating et al, 2003). Loyal customers are less likely to switch to another competitor due to price incentives, and these customers results to make more purchases than

less loyal customers (Baldinger and Rubinson, 1996). An American study concluded that more than 37 percent of the variance observed in customer loyalty levels was explained by satisfaction levels. Given the growing competitiveness of many industries, customer loyalty is perceived as a key factor in gaining and maintaining market share, moreover, customer loyalty is a key determinant of firms long-term financial performance.

Albanian Banks must provide customers loyalty to achieve stable financial growth and improve their position in the market. They need to develop strategies to ensure increased customer satisfaction and loyalty by improving service quality, if loyalty increases this can lead to significant profit growth. Moreover, customers will stay loyal to their banks when there is an increase in the level of satisfaction. For this, we consider the vital role of customer satisfaction in customer relationships and the positive impact on loyalty.

3. Purpose and study objectives

The purpose of this study is based on the current state of e-banking in Albania to measure the impact that service quality, e-service quality, price factors and image have on customers trust and loyalty to banks. In view of the above purpose, the paper has as its main objective:

Measuring the impact that the quality of service, the quality of e-service, price factors and image have on the trust and loyalty of customers to banks (with a focus on the Gjirokastra region).

4. Hypothesis and methodology

The decision to use electronic banking services is a function of several variables (measured in 7 degrees according to Likert) and personal characteristics. Variables will include: trust, loyalty, service and e-service quality dimensions, price and image.

To address research problems and achieve the main objective, this study will confirm the following hypotheses:

Study hypotheses

Hypothesis 1: Trust does not depend on service quality, E-service quality, price factors and image

Hypothesis 2: Loyalty does not depend on service quality, E-service quality, price factors and image

To achieve the purpose and objective of the study was conducted a questionnaire in three districts of Gjirokastra region. Based on statistical methods and classical econometric models (linear multifactorial regression), the survey data were processed and findings the confirmations or not of the hypotheses were presented.

5. Data analysis and findings

To measure the impact of service quality, e-service quality, price factors and image have on the trust and loyalty of customers to banks was used classical econometric models (linear regression multifactorial). Table 1 presents the information of sample composition by personal factors.

Tabela 1: Sample by personal factors

		Frequency	Percent		
A. PERSONAL FACTORS					
1. Gender		350	100.00 %		
	a) Female	186	53.14 %		
	b) Male	164	46.86 %		
2. Age		350	100.00 %		
	a) below 18 years old	5	1.43 %		
	b) 18 -25 years old	88	25.14 %		
	c) 26 -35 years old	97	27.71 %		
	d) 36 -5 years old	68	19.43 %		
	e) 46 -55 years old	64	18.29 %		
	f) More than 56 years old	28	8.00 %		
3. Marital status		350	100.00 %		
	a) Married	195	55.71 %		
	b) Single	132	37.71 %		
	c) Widowed	8	2.29 %		
	d) Divorced	15	4.29 %		
4. Education level		350	100.00 %		
	a) Low education	13	3.71 %		
	b) Secondary Education	96	27.43 %		
	c) University education	211	60.29 %		
	d) Postgraduate education	30	8.57 %		
5. Area of residence		350	100.00 %		
	a) Urban areas	287	82.00 %		
	b) Rural areas	63	18.00 %		

Source: Developed by author

5.1. Regression Analysis

Hypothesis 1: Trust does not depend on service quality, E-service quality, price factors and image

Table 2: Summary of model for trust with the method of least squares

•								
Dependent variable: TRUST								
Variable	Coefficient	Std. Error	t-Statistic	Prob.				
С	-0.529820	0.259301	-2.043262	0.0418				
E-SERV. QUALITY	0.248655	0.066925	3.715413	0.0002***				
SERVICE QUALITY	0.081202	0.073705	1.101718	0.2714				
IMAGE	0.452139	0.049056	9.216745	0.0000***				
PRICE	0.308942	0.038580	8.007726	0.0000***				
R-squared	0.673883	Mean dependent var		5.338135				
Adjusted R-squared	0.670090	S.D. dependent var		1.334388				
S.E. of regression	0.766442	Akaike info criterion		2.320108				
Variable	Coefficient	Std. Error		t-Statistic				
Sum squared resid	202.0772	Schwarz criterion		2.375339				
Log likelihood	-399.8589	F-statistic		177.7087				
Durbin-Watson stat	1.985028	Prob(F-statistic)		0.000000				

Source: Developed by author

Note: *, **, *** *** indicates that the results are significant at 10, 5 and 1 percent respectively.

The final model derived from the multivariable analysis appears as follows:

TRUST = -0.529820 + 0.248655 E-SERVICE QUALITY +0.081202 SERVICE QUALITY +0.452139 IMAGE +0.308942 PRICE $+\epsilon$

The value of the Durbin – Watson test results to be equal to 1.985028. This value is within the allowable range (1.5-2.5) and indicates that autocorrelation is not present in the model.

The above data show that the model as a whole is important because the statistics (F = 177.7087; Prob F = 0.000000 < 0.05). In this way we conclude that the elevated model is statistically significant based on the error of the first type a = 0.05 or at the 95% reliability level.

To measure the power of addiction of depended variable (faith), and independently variables included in the model (E- sercive quality, service quality, image and price) is considered the correlation coefficient R², corrected with the freedom scales. According to the statistics presented in the summary table of the model, it is noticed that 67% of the variation of the dependent variable is explained by the independent variables. The remaining 33% belongs to other factors (including random ones) that are not included in the model.

Among the four factors included in the model results that E-service quality, image, and price are statistically significant, while the service quality does not appear to be statistically significant. This is confirmed by the test values t and the probability p values that for each variable result respectively t of quality of E-service = 3.715413, p (t) quality of E-service = 0.0002 < 0.05; t of service quality = 1.101718, p (t) service quality = 0.2714 > 0.05; t of image = 9.216745, p (t) image = 0.0000 < 0.05; t of price = 8.007726, p (t) price = 0.0000 < 0.05. It is also noted that among the three statistically significant factors, results that the image has more impact, because according to the model, if the image improves by one degree then it is expected that the confidence will increase by 0.45 degrees.

Consequently, we can say that the above hypothesis is proven only for the quality of service with probability of at least 95%.

Hypothesis 2: Loyalty does not depend on service quality, E-service quality, price factors and image

Table 3. Summary of model for loyalty with the method of least squares

Dependent variable: LOYALTY							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	-0.027608	0.276533	-0.099837	0.9205			
E-SERV. QUALITY	0.171747	0.071373	2.406336	0.0166**			
SERVICE QUALITY	0.388582	0.078603	4.943593	0.0000***			
IMAGE	0.142923	0.052316	2.731900	0.0066***			
PRICE	0.309358	0.041144	7.518847	0.0000***			
R-squared	0.594323	Mean dependent var		5.363181			
Adjusted R-squared	0.589606	S.D. dependent var		1.275915			
S.E. of regression	0.817377	Akaike info criterion		2.448790			
Sum squared resid	229.8280	Schwarz criterion		2.504020			
Log likelihood	-422.3138	F-statistic		125.9913			
Durbin-Watson stat	1.595233	Prob(F-statistic)		0.000000			

Source: Developed by author

Note: *, **, *** *** indicates that the results are significant at 10, 5 and 1 percent respectively.

The final model derived from the multivariable analysis appears as follows:

LOYALTY =
$$-0.027608 + 0.171747$$
 E-SERVICE QUALITY + 0.388582 SERVICE QUALITY + 0.142923 IMAGE + 0.309358 PRICE + ϵ

In this model, the Durbin-Watson test results to be 1.595233, a value within the allowable range (1.5-2.5) and indicates that the assumption regarding autocorrelation has not been violated. Meanwhile, the variation of the dependent variable is explained by 58.96% of the independent variables taken in the model, because the adjustable coefficient of determination results in R2 = 58.96%, while 41.04% of the variation of the "loyalty" variable is explained by other random variables. in the model.

The data in the table above show that the model is statistically significant at the 95% confidence level (F = 125.9913; Prob F = 0.000000 < 0.05). If we analyze the importance of each variable included in the model (E-service quality, service quality, image and price), they are statistically significant so their effect on loyalty is valuable. This is confirmed by the test

values t and the probability p values that for each variable result respectively t of quality of E-service = 2.406336, p (t) quality of E-service = 0.0166 <0.05; t of service quality = 4.943593, p (t) service quality = 0.0000 <0.05; t of image = 2.731900, p (t) image = 0.0066 <0.05; t of price = 7.518847, p (t) price = 0.0000 <0.05. Note also that among these four most important factors are quality of service and price, because according to the model, if the quality of service and price improve by one degree then it is expected that loyalty will increase by 0.388 and 0.309 respectively.

Consequently, we can say that the above hypothesis is rejected with probability at least 95%.

6. Conclusions

The purpose of this study is to show the impact that service quality, e-service quality, price factors and image have on customer trust and loyalty to banks in terms of using e-banking.

From the multivariable analysis used to analyse the relationship between trust and service quality, E-service quality, price and image, results that E-service quality, image and price are significant factors that impact the costumers trust and the service quality is statistically insignificant.

Among the three statistically significant factors, results that the image has more impact, because according to the model derived from multivariate analysis, if the image improves with a degree then it is expected that trust grows by 0.45 degrees. Our study is consistent with previous studies of Muhammed et al (2010) who found that image is a factor which positively impacts on the trust.

The forth above factors were taken into consideration to see their connection to bank loyalty. The multivariable analysis showed that the forth factor are statistically significant in their impact on loyalty. Note also that among these four most important factors are quality of service and price, because according to the model, if the quality of service and price improve by one degree then it is expected that loyalty will increase by 0.388 and 0.309 respectively. This finding reinforces the conclusion of Zahorik and Rust (1992) who have argumented that service quality is a factor that affects customer loyalty. The results also support the study of Sirgy and Samli (1989), who reported a positive direct relationship between image and loyalty. Al-Khozam (2010), using the five main dimensions of e-service quality (ease of use, privacy, security, e-responsibility and contact), to measure their effect on customer loyalty found that there is no connection important between them as a direct link. According to the above study there is an indirect significant effect of e-service quality on customer loyalty mediated by satisfaction, image and trust. Also Al-Khozam (2010), using the five main dimensions of service quality (bank assets, reliability, accountability, security and sensitivity) to measure the effect of service quality on customer loyalty has found that there is no significant relationship direct between them, but has an indirect significant effect on customer loyalty mediated by satisfaction, image, and trust. According to Al-Khozam's (2010) study, it was found that there is an indirect effect of image on loyalty mediated by trust. Also Ball et al (2004) found that the image has about loyalty in a different way, it can affect loyalty through an indirect path from satisfaction and trust. Our findings support the following studies conducted, e.g. one study confirmed positive relationships between perceived quality of service and customer loyalty (Anderson and Sullivan, 1993; Cronin and Taylor, 1992). The study of (Murphy, 1996) proved that loyalty can also be determined by image. Tam, (2003) also proposed a model that explains customer loyalty where factors such as web design, security, privacy, and customer service have a major impact on customer loyalty. While the study of Brunner et al. (2008), in divergence with our findings found that image palys a much smaller role in terms of loyalty.

The results of this study show that banks should pay more attention to the quality of service, quality of e-service, image and price of banking transactions as important factors that affect the trust and loyalty of e-banking customers. This will help them not only keeping their existing costumers, but also will increase the number of new costumers.

7. References

- Alexiadis Stilianos, Ladias Christos, "A Model of Regional Planning with Geographical Perspective," Heritage, Planning and e-Participation: The Evolving Forms of Information Society, Athens Greece, 2011, National Technical University of Athens, Dept. of Geography and Regional Planning and MICHIGAN STATE UNIVERSITY, (e-proceedings), http://www.Sur vey.ntua.gr 2011
- Alexiadis Stilianos, Hasanagas Nikolaos and Ladias Christos, "Endogenous Knowledge and Innovation," Knowledge as Business Opportunity', International Conference, Celje Slovenia), 2011, ISBN 978-961-92486-3-8, ISSN 2232-3309, pp: 399-406, International School for Social and Business Studies (e-proceedings), hhtp://www.mfdps.si/en/ 2011
- Alexiadis Stilianos, Ladias Christos and Polo Antoneta, "Looking into the Future of EU: Regional Cohesion and Macro-Regions", Conference: What Future for Cohesion Policy? An Academic and Policy Debate, Regional Studies Association (R.S.A.), Bled, Slovenia, 2011, (e-proceedings), www. ersa.org 2011
- Alexiadis, Stilianos, Ladias, Christos, "Optimal Allocation of Investment and Regional Disparities," Regional Science Inquiry Journal, Volume III, Number 2, 2011, pp. 45-60, ISSN 1791-5961 (Print), ISSN 1791-7735 (On line), www. rsijournal.eu, (Journal indexed in EconLit Scopus, RSA I) 2011
- Alexiadis, Stilianos, Ladias, Christos, Polo Antoneta, "Converging and Diverging Regions in the EU: Implications for Regional Policy," Regional Science Inquiry, December 2010, Volume II, Number 2, , ISSN 1791-5961 (Print), ISSN 1791-7735 (On line), (EconLit, Scopus, RSA I), pp:55-70. www.rsijournal.eu 2010
- Alexiadis, Stilianos, Ladias, Christos, Milionis, Sotirios, "Regional Growth and Immigration: The Case of Greece," Journal of Regional & Socio-Economic Issues, Volume 1, Issue 2, September 2011, ISSN 2049-1395 (Printed), ISSN 2049-1409, pp:43-52, http://journalshub.com/journal-detail.php?journals- id= 53 2011
- Anderson E W and Sullivan M W (1993), "The Antecedents and Consequences of Customer Satisfaction for Firms", Marketing Science, Vol. 12, Spring, pp. 125-143.
- Baldinger A L and Rubinson J (1996), "Brand Loyalty: The Link Between Attitude and Behavior", Journal of Advertising Research, Vol. 36, No. 6, pp. 22-34.
- Ball Dwayne, Coelho P S and Machas A. (2004), "The Role of Communication and Trust in Explaining Customer Loyalty: An Extension to the ECSI Model", European Journal of Marketing, Vol. 38, Nos. 9/10, pp. 1272-1293.
- Beer, Stan (2006). "Customers Preference on Internet Banking, Survey" (Retrieved from http://www.itwire.com/content/view/4570/53 on March 20, 2009).
- Brodie, R. J; H Winklhofer; N. E Coviello and W.J Johnston, (2007). "Is e-marketing coming of age? An Examination of the Penetration of e-marketing and Firm Performance". Journal of InteractiveMarketing,21, 2 21.
- Brunner T A, Markus S and Klaus O (2008), "Satisfaction, Image and Loyalty: New Versus Experienced Customers", European Journal of Marketing, Vol. 42, Nos. 9/10, pp. 1095-1105.
- Cooper, R. G (1997). "Examining some myths about new product winners in Katz, R. (Eds), The Human Side of Managing Technological Innovation". Oxford. 550 60. (Retrieved from www.ebsco.com).
- Cronin Jr, J.J. and Taylor, S.A. (1992), "Measuring service quality: a re-examination and extension", Journal of Marketing, Vol. 56, pp. 55-68.
- Crosby L, Evans K and Cowles D (1990), "Relationship Quality in Service Selling: An Interpersonal Influence Perspective", Journal of Marketing, Vol. 54, No. 3, pp. 66-81.
- Caca, Enkela (Babaramo), Ladias, Christos Ap., Doc. Dr Polo Antoneta, "Have Albanian firms perceptions on the severity of business environment elements changed over 2007-2013?", Special Edition (or Normal Edition) of the European Journal of Sustainable Development, 2015.
- Caca, Enkela (Babaramo), Ladias, Christos Ap., Antoneta Polo, "Barriers of climate business in Western Balkans' countries (A comparative analysis, based on Enterprises Surveys 2013)", ScieConf 2015 - International Scientific Conference, The 3rd International Virtual Conference on Advanced Scientific Results, May 25 - 29, 2015, Slovakia, Conference Proceedings ISBN and ISSN 2015.
- Caca, Enkela (Babaramo), Ladias Christos Ap., Polo, Antoneta, "Technological Innovations in Developing Countries (Western Balkans case)", The 6th International Conference on International Business (ICIB 2015), Thessaloniki (Greece), 22-24 May 2015, conference proceedings ISBN and ISSN, http://icib.eu 2015.
- Dabholkar, P., Thorpe, D.I. and Rentz, J.Q. (1996), "A measure of service quality for retail stores", Journal of the Academy of Marketing Science, Vol. 24, pp. 3-16.
- Doney P M and Cannon J P. (1997), "An Examination of the Nature of Trust in Buyer-Seller Relationships", Journal of Marketing, Vol. 61, April, pp. 35-51

- Falvian C., Torres E and Guinaliu M (2004), "Corporate Image Measurement: A Further Problem for the Tangibilization of Internet Banking Services", International Journal of Bank Marfating, Vol. 22, No. 5, pp. 366-384.
- Gan, C and Clemes, M. (2006). A logit analysis of electronic banking in New Zealand. International Journal of Bank Marketing, 24 (6), 360-383.
- Gonzalez, M; R.Mueller Dentiste and R. Mack (2008). "An alternative approach in Service quality: An E-banking Case Study". Quality Management Journal; PRJ,15,41-48.
- Hasanagas, Nikolaos, Alexiadis, Stilianos, Ladias, Christos, "A Regional Pers-ective of the Common Agricultural Policy" Land Use Policy, LUP-D-12-00071, 2013, http://ees.elsevier.com/lup/. Impact Factor: 2.360, (print-online): ELSEVIER, ISSN: 02 64-8377 2013.
- Hirschman E C, Greenberg B and Robertson D H. (1978), "The Intermarket Reliability of Retail Image Research: An Empirical Examination", Journal of Retailing, Vol. 54, pp. 3-12.
- IAMAI, 2006. IAMAI's Report on Online Banking (2006). Retrieved from http://www.iamai.in/Research.aspx?Fileid=r8_home.
 - htm&rid=8http://www.banknetindia.com/banking/ibkgintro.htm Accessed on June 24, 2011.
- James, B.C. (1989), Quality Management for Health Care Delivery-Quality Measurement and Management Project, The Hospital Research and Educational Trust, Chicago, IL.
- Joseph. M; C. McClure and B. Joseph, (1999). "Service Quality in Banking Sector: The impact of Technology on service delivery". International Journal of Bank Marketing, 17(4), 182 191.
- Joseph, W.B. (1996), "Internal marketing builds services quality", Journal of Health Care Marketing, Vol 16 No. 1
- .Kokkinou Aikaterini, Ladias Christos Ap., Alexiadis Stylianos, "Assessing Regional Efficiency: Estimates from Panel Data in Supply Chain Management", international conference, 54th ASRDLF and Greek section of the ERSA, Athens
- Kang Gi-Du and James Jeffrey (2004) "Service Quality Dimensions: An Examination of Gronroos's Service Quality Model", Managing Service Quality, Vol. 14, No. 4, pp. 266-277.
- Kaynama, S. A., and Black, C. I. (2000), "A Proposal to assess the Service Quality of Online Travel Agencies: An Exploratory Study," Journal of Professional Services Marketing (21:1), pp. 63-88.
- Keating, B., Rugimbana, R. and Quazi, A. (2003), "Differentiating between Service Quality and Relationship Quality in Cyberspace", Managing Service Quality, Vol. 13, No. 3, pp. 217-232.
- Keiser, A. (1993), "Keeping the customer satisfied begins with asking questions", Bank Management, Vol. 69 No. 10, pp. 48-53.
- Kennedy S H. (1977), "Nurturing Corporate Image", European Journal of Marketing, Vol. 11, No. 3, pp. 120-164.
- Ladias, Christos, Hasanagas, Nikolas, Papadopoulou, Eleni, "Conceptualizing macroregions:
 Viewpoints and tools beyond NUTS classification," Studies in Agricultural Economics, Volume
 113, number 2, Thematic Issue, Research Institute of Agricultural Economics, 2011, pp:138-144,
 HU ISSN 1418-2106 (printed), HU ISSN 2063-0476 https://www.aki.gov.hu/studies 2011
- LeBlanc G and Nguyen Nha (1996), "Cues Used by Customers Evaluating Corporate Image in Service Firms: An Empirical Study in Financial Institutions", International Journal of Service Industry Management, Vol. 7, No. 2, pp. 44-56.
- Lian, T. (1994a), "Customer retention through service quality", Bank Marketing, Vol. 26 No. 1, pp. 15-20
- Lian, T. (1994b), "Putting together the pieces of service quality", Bank Marketing, Vol. 26 No. 4, pp. 22-30.
- Liao, Z., and Cheung, M. T. (2002) "Internet-Based E-Banking and Consumer Attitudes: An Empirical Study", Information and Management, No. 39, pp. 283-295.
- Mahoney, L. (1994), "Service quality/service excellence", Bank Marketing, Vol. 26 No. 4, p. 66. Masden, G. (1993), "Service excellence: a step beyond quality", Bank Marketing, Vol. 25 No. 10, pp. 39-41
- Mohammad Ziaul Hoq, Nigar Sultana, Muslim Amin(2010), "The Effect of Trust, Customer Satisfaction and Image on Customers' Loyalty in Islamic Banking Sector", South. New Delhi: Vol. 17, Iss. 1; pg. 70, 24 pgs.
- Morgan R and Hunt S. (1994), "The Commitment-Trust Theory of Relationship Marketing", Journal of Marteting, Vol. 58, pp. 20-38.
- Murphy, J.A. (1996), "Retail banking", in Buttle, F. (Ed.), Relationship Marketing, Theory and Practice, Paul Chapman, London, pp. 74-90.
- Nguyen Nha and LeBlanc G (2001), "Corporate Image and Corporate Reputation in Customers' Retention decisions in services", Journal of Retailing and Consumer Services, Vol. 8, pp. 227-236.
- Polatoglu, V. N., and Ekin, S. (2001) "An Empirical Investigation of the Turkish Consumers' Acceptance of Internet Banking Services", International Journal of Bank Marketing, 19(4), pp. 156-165.

- Polo, Antoneta, Ladias, Christos Ap., Caca, Enkela, "Relationship between the Altman Z-Score and Quick Test Kralicek in Assessing Economic Units", 6th International Conference on Social Sciences, 6th ICSS 2015, has been received, evaluated in peer review, found relevant and accepted to be presented at the conference which will take place in Istanbul on 11-12 September 2015.
- Tsiotas, D., (2021) "Network topology as an economic indicator: the case of the interregional road transportation in Greece", Research in Transportation Economics (10.1016/j.retrec.2020.101004).
- Polyzos, S., Tsiotas, D., (2020) "The contribution of transport infrastructures to the economic and regional development: a review of the conceptual framework", Theoretical and Empirical Researches in Urban Management, 15(1), pp.5-23.
- Tsiotas, D., Polyzos, S., (2018) "The complexity in the study of spatial networks: an epistemological approach", Networks and Spatial Economics, 18(1), pp.1–32.
- Ritter D S. (1993), Relationship Banking: Cross-selling the Bank's Products & Services to Meet Your Customer's Every Financial Need, Bankers Pub. Co. Chicago.
- Rousseau D, Sitkin M, Burt R and Camerer C. (1998), "Not so Different After All: A Cross-Discipline View of Trust", Academy of Management Review, Vol. 23, No. 3, pp. 393-404.
- Santos (2003), E-service quality: a model of virtual service quality dimensions. Managing Service Quality, 13(3), 233-246.
- Sathye, M. (1999) "Adoption of Internet Banking by Australian Consumers: An Empirical Investigation", The International Journal of Bank Marketing, 17(7), pp. 324-334.
- Seth. N., S.G. Deshmukh. and P. Vrat. (2004). "Service quality models: A review". International Journal Quality and Reliability Management, 22(9), 36-51.
- Singh J and Sirdeshmukh D. (2000), "Agency and Trust Mechanisms in Customer Satisfaction and Loyalty Judgments", Journal of the Academy of Marfeting Science, Vol. 28, No. 1, pp. 150-167.
- Singhal, D and V.Padhmanabhan (2008). "A study on Customer Perception Towards internet Banking: Identifying major contributing factors". The Journal of Nepalese Business Studies. V (1), 101 111
- Sirgy, M.J. and Samli, A.C. (1989), "A path analytic model of store loyalty involving self- concept, store image, geographic loyalty, and socioeconomic status", Journal of the Academy of Marketing Science, Vol. 13 No. 3, pp. 265-91.
- Stewart, K. 1999. Transference as a means of building trust in World Wide Web Sites. Proceedings of the 20th ICIS, Charlotte, North Carolina.32
- Tam, C. (2003), "An integrated online customer loyalty model", Proceedings of XI International Conference of the Academy of Business and Administrative Sciences (ICABAS), Brussels (Available at: www.sba.muohio.edu/abas/2003/brussels/tam_pb-6310christinetam.pdf).
- Taylor, M., Steven, A. and Baker, T.L. (1994), "An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions", Journal of Retailing, Vol. 70 No. 2, pp. 163-78.
- Yap, K., D. Wong, C. Loh, and R. Bak (2010). Offline and online banking where to draw the line when building trust in e-banking. International Journal of Bank Marketing, 28(1), 27-46. doi:10.1108/02652321011013571, http://dx.doi.org/10.1108/02652321011013571
- Zahorik, A. and Rust, R. (1992), "Modeling the impact of SQ of profitability: a review", Advances in Services Marketing and Management, JAI Press, Greenwich, CT, pp. 49-64.
- Zeithaml, V. A. (2002), "Service Excellence in Electronic Channels," Managing Service Quality (12:3), pp. 135-138.
- Williamson, D Gregory (2006). "Enhanced authentication in Online Banking". Journal of Economic Crime Management. Vol 4 Issue 2. http://www.utica. edu/academic/institutes/ecii/Publications/articles/5ID6D996 90F2 F468 AC09C4E8071575AE.pdf on 18 march 2009.
- Xanthos, Georgios, Ladias, Christos, Genitsaropoulos, Christos, "A method for forecasting population changes in mountainous, hill and lowland communities of Epirus Region", Regional Science Inquiry, The Journal of the Hellenic Association of Regional Scientists, June 2012, vol. V, No.1, pp:171-181, ISSN: 1791-5691 (print), ISSN: 1791-7735 (on line). (Journal indexed in Econlit), www.rsijournal.eu 2012