

Measuring the Relationship between Behavioral Intention and Customer-based Brand Equity by Using the Structural Equation Model (SEM)

Hoàng Thị Thu Hương*, Đồng Xuân Đảm, Nguyễn Thị Quỳnh Trang

*National Economics University,
207 Giải Phóng Road, Đồng Tâm Ward, Hai Bà Trưng Dist., Hanoi, Vietnam*

Received 11 May 2015

Revised 16 June 2014; Accepted 29 June 2015

Abstract: Based on the Structural Equation Model (SEM) method, this paper expresses how to examine the relationship among tourists' behavioral intention and destination brand equity. The definition of customer-based destination brand equity is a combination of key factors, which are measured by four components: destination brand image, destination brand awareness, destination brand quality, and destination brand loyalty. This paper focus on introducing the measurements for all the constructs (destination brand image, destination brand awareness, destination brand quality, destination brand loyalty, tourists' behavioral intention), and the analytical procedures used to check instrument reliability and validity.

Keywords: Structural Equation Model (SEM), behavioral intention, customer-based destination brand equity.

1. Introduction

In current research in the tourism industry has paid attention to determinants of tourism destination. It has been suggested by many authors that tourism destination branding represents the most obvious means by which destinations can distinguish themselves from the large number of commodity destinations over the world [1]. Moreover, the need to attract visitors requires conscious branding strategies for the different target visitors [2, 3]. In fact, several countries have been very successful in

applying the country branding concept, particularly New Zealand [4], Spain [5]; and the re-imaging of former Yugoslavia [6]; and Guam, Vietnam [7]. To improve a destination's competitiveness, many countries not only promote their natural attractions but also differentiate their destinations with branding strategies that establish their unique positions in order to attract more international visitors and to boost the sales of tourism services. In comparing the behavior of Japanese visitors when they have visited Guam and Vietnam, Thi Lan Huong Bui (2010) examined and justified the high spending potential of the Japanese market segment and suggested some

* Corresponding author. Tel.: 84-985822479
E-mail: hoangthuhuong.neu@gmail.com

successful paths to a country's branding strategy and tourism development-such as that of Vietnam-in order to increase the number of arrivals as well as to enhance customer satisfaction.

Building a destination brand is seen to be an important lever in developing the local tourism potential. It is considered that broadening tourist opportunities and travel locations have resulted in a lack of differentiation and in increased substitutability amongst some destinations [8]. The purpose of branding destinations is to bring focus to create an appropriate, attractive image, which contains the most realistic content that in each style is a different way to express or show a destination's image to tourists. Branding of a product or a destination not only differentiates competing products, but also serves as a means of creating additional values. A strong brand will create a good identity for tourism products and services or even for the whole tourism destination. In a study of the branding issue on the macro level conducted in Vietnam, Anh Tuan Nguyen (2009) suggests that effort should be spent on developing and promoting a strong destination brand in order to establish an attractive image of a country for tourists all over the world [9]. Ritchie and Ritchie (1998) defined a destination brand as *"a name, symbol, logo, word, mark or other graphic that both identified and differentiated the destination; furthermore, it conveyed the promise of a memorable travel experience that was uniquely associated with the destination; it also served to consolidate and reinforce the recollection of pleasurable memories of the destination experience"* [10]. These factors are all in a close relationship and reaction with each other. In recent years, some tourism enterprises in Vietnam have become interested in building and strengthening their

brands. Pike (2008) stated that customer-based brand equity - CBBE is based on the value of the brand to the consumer, and provides a link between past marketing efforts and future sales performance [11]. However, the process of branding now faces some problems such as human resources, finance, service charges, as well as mechanisms, policies and administrative procedures. Many companies are not aware of the important role of their brand and the brand of destinations as well. Therefore, promotional activities as the way of building a strong and impressive brand image compared to that of other countries are necessary.

To develop the Vietnamese tourism industry, it is crucial to explore both domestic and international tourism markets and more importantly to exceed the visitors' expectations to attract their return. To achieve this level, the industry needs to understand the visitors' needs in order to serve them better and satisfy their demands so as to attract their return. According to Thu (2012) [12] and Phuong Giang Quach (2013) [13], only 15 per cent to 20 per cent of international visitors are willing to visit Vietnam again. One of the reasons is Vietnam focuses on the short-term benefits of tourism development and there is a lack of long-term orientation as visitors' feedback on tourist destinations and their evaluation of the services rendered has been overlooked.

In fact, there has been a lot of criticism from researchers who build up a destination's reputation. Kotler and Gertner (2002) argued that a destination brand is the result of customers' association with the destination. Per half in strict marketing terms, destinations cannot be branded, which is why some authors talk about reputation management instead of brand management

[14]. Some researchers considered reputation reflects the reality that it is delivered by the host destination or DMOs (Destination Management Organizations).

2. Measuring customer-based brand equity and behavioral intention

Scale development was performed following suggestions for the research process. The main method to help gain the study's aim is quantitative so as to have a better understanding of the destination brand equity and its relationship with tourists' behavioral intention. All of these steps in the development of the measurement instrument are important because no previous research on a destination area includes the expected four dimensions of the concept.

A combination of three methods was used for generating the variables needed to be used. First, for each dimension, relevant variables from previous studies were employed. In line with researchers' suggestions, special care was taken when defining the variables of brand image, brand awareness, brand quality, brand loyalty and its related dimensions. These variables are specific, and measures were customized for the unique characteristics of specific brand categories.

The study instrument can be divided into two main parts. In the first, questions about proposed customer-based brand equity for a destination tourism dimensions. A priority was to obtain the opinions of respondents who had at least some knowledge of the investigated capital, and then to find their behavioral intention in the future, including their intent to repurchase and recommend about the destination to other people. This study

instrument only employed closed-ended questions. For each proposed dimension, a related set of variables was utilized. The variables were measured on a bipolar 7-point semantic differential Likert-type scale where 1 = strongly disagree and 7 = strongly agree. All scales included a neutral point of no agreement or disagreement with the statement. The use of semantic type scales is a common procedure in the social sciences to allow the use of nominal data (or ordinal-level data to be treated as interval-level data), which can then be subjected to higher order analytical techniques.

There are five main constructs in the theoretical model. These are: (1) destination image; (2) destination awareness, (3) destination perceived-value; (4) destination loyalty; (5) behavioral intentions. The following section reviews the measurement of these constructs in previous studies and proposes the instrument for this study.

Destination Brand Image (DI)

The Destination brand image has been developed over several studies. It has been addressed in a cognitive perspective and, more recently, from the late 1990s, in a cognitive-affective approach. Although most studies agree that the image is a multidimensional global impression, there is no agreement on the dimensions that make up this same holistic impression [15]. Several studies have also linked a behavioral component [16, 17]. Brand image represents the perceptions attached to the destination. A destination brand represents a potential node to which a number of associations with other node concepts are linked. Based on the study of Boo et al. (2009), this study limits destination image to social and self image [18]. Tourism marketing experts consider that destination image is a concept including two components, tangible and

intangible [19, 20]. On the other hand, brand image can be defined as consumer perceptions of a brand as reflected by the brand associations held in consumer's memory [21]. Moreover, a lack of homogeneity, reliability and validity in the scales used for measuring the destination image is observed, since most of them are the result of exploratory studies on the identification of important and determined attributes for the destination image formation (Beerli and Martín, 2004).

Destination Brand Awareness (DA)

Destination Brand awareness is the ability to recognize and recall a brand [22, 23, 24]. It reflects the salience of the brand in the customer's mind (Aaker, 1991), and it is a main element of a brand's effect on tourism as well [25]. The authors measured destination brand awareness - the accessibility of the brand in memory. It includes two main parts such as brand recall and brand recognition. Brand recall reflects the ability of consumers to recover the use of a product or service category. Brand recognition reflects the ability of consumers to confirm prior exposure to the brand of a destination. There are three levels of recognition, recall of mind and dominance that reflect its real components, not forming this concept to the same degree.

Destination Brand Quality (DQ)

In reviewing previous studies dealing with destination development, only a few were found covering the topic of perceived quality and were a good predictor of repurchase intentions [26, 27, 28, 29, 30, 31]. This is interesting because the tourist's overall evaluation of a destination is a combination of products, services, and experiences. In all these examples, quality is a vital element affecting consumer behavior.

Destination Brand Loyalty (DL)

Although the loyalty concept has been extensively investigated in the marketing literature, destination loyalty has rarely been studied. Oppermann (2000) argued that loyalty should not be neglected when examining destination brands and some studies partly introduce it [32]. However, these incorporate only a few measures that indirectly illuminate loyalty. It has been suggested that repeat visitation and intention to return are indicators of place loyalty. Behavioral loyalty implies that previous experiential familiarity influences today's and tomorrow's tourism decisions, especially destination choice, or many destinations rely heavily on repeat tourists. Oppermann (2000) suggested that destination loyalty should be investigated longitudinally, looking at lifelong visitation behavior. In this way behavioral loyalty can be used as a reasonable or good predictor of future destination choice. Based on the literature review of previous researches, many researchers have studied the concept of consumer loyalty in the last two decades in the area tourism and leisure/recreation activities (Baloglu, 2001; Oppermann, 2000).

Tourist's Behavioral Intention (BI)

Travel behavior is a term of synthesis, which includes the decision before the trip (pre-purchase), the purchase and post-purchase (evaluation and intention of tourist). In travel behavior, intended trip includes repeat purchase and positive word-of-mouth recommendation in the post consumption phase [33].

The following questions in Table 1 were designed to measure the dimensions of customer-based brand equity for tourism destination and behavioral intentions.

Table 1. Proposed constructs: used scale indicators

Concept/ Dimension	Indicator	Author	
Destination image (DI)			
	The destination offers historic charms	Ferns B.H and Walls A. (2012) [34]	
	The destination offers a number of cultural and festival events		
	The destination has good museums and art galleries		
	The destination has outstanding scenery		
	The destination has good state parks and forests		
	In and around the destination, there are great places for outdoor activities		
	It is a great family vacation destination		
	Good opportunities for recreation activities		Baloglu and McCleary (1999), Beerli and Martín (2004)
	Good shopping facilities		
	High quality of accommodation		
	High quality of infrastructure		
	Low prices of tourism services		
	Good value for money		
	Relaxing atmosphere/peaceful place		
	Interesting cultural attractions		
	Unusual ways of life and customs		
	Interesting cultural attractions		
	Fascinating architecture		
	Beautiful landscapes		
	The image that I have of this destination is as good or even better than other similar destinations	Bianchi and Pike (2009) [35]	
	Unpolluted environment		
	High level of cleanliness		
	High level of personal safety		
	Place to rest		
	It is slightly crowded		
	Overall destination image is very positive		
	This destination fits my personality		
	My friends would think highly of me if I visited this destination	Aaker (1991), Berry (2000), Keller (1993) [36]	
	The image of this destination is consistent with my own self image		
	Visiting this destination reflects who I am		
Destination Brand Awareness (DA)			
	The brand ... is the only one that comes to my mind when I think of a tourist destination		Ferns B.H and Walls A. (2012)
	The brand ... is the first that comes to my mind when I think of a tourist destination.		
	The brand ... is easy to recognize among the other destination brands		
	I can picture what the destination looks like in my mind		
	I am aware of the place as a travel destination		
	I can recognize the destination among other similar travel destinations		
	Some characteristics of the destination come to my mind quickly		
	I can quickly recall the marketing about the destination		

Destination Quality (DQ)	
The destination has good hotel accommodation	Ferns B.H and Walls A. (2012)
The destination offers good shopping venues	
The destination has good night life and entertainment (bars, clubs, dancing...)	
The quality of this destination is outstanding	Huh J. (2006) [37]
The quality of this destination is very reliable	
The quality of this destination is very dependable	
The quality of this destination is very consistent	
The quality of this destination is very favorable	
The quality of this destination is of a high standard	
High quality of infrastructure	Konecnik and C. Gartner (2007)
High quality of services	
Appealing local food (cuisine)	
High level of personal safety	
High level of cleanliness	
Destination Loyalty (DL)	
Number of previous visitations	Konecnik and C. Gartner (2007)
Visit TD in the future	
Recommend TD to friends	
TD provides more benefits	
One of preferred TDs to visit	
Time of last visitation	
I consider myself a loyal traveler to this destination	Ferns B.H and Walls A. (2012)
If there is another travel destination as good as this one, I prefer to visit this destination	
The destination would be my first choice of a travel destination	
I will visit this destination instead of other travel destinations if they are similar	
I encourage my friends/relatives to visit the destination	Huh J. (2006)
I am willing to pay a higher price than for other destinations	
Tourist's Behavioral Intention	
How likely is it that you will visit the destination in the next month?	H. Ferns and Walls (2012)
How likely is it that you will visit the destination in the next six months?	
How likely is it that you will visit the destination in the next 12 months?	
I'm willing to revisit the destination in the future	Kim et al. (2009) [38],
I will recommend positively about destination after the trip	Chen and Tsai (2007)

The final questionnaire depends on the items of each construct that were supported by the authors, the results of the qualitative method (participant observation, in-depth interviews with some tourism experts, focus groups), and results of factor loading of pre-test.

3. Research methods

To obtain an understanding, explanation and to make a prediction, or to control some phenomena [39], the research design outlines the procedures necessary for obtaining the information needed to structure or solve business research problems [40]. The research

design controls for variance and gives a framework or blueprint for the study by suggesting the types of observations to make and how to analyze them, and the possible conclusions that can be drawn from the analysis. Business research methods can be classified on the basis of either function or technique [41].

Based on function, there are three types of research including exploratory, descriptive and causal studies. These methods help researchers to answer the research questions of their study. Constructs of the interest were measured based on a review of previous studies and a pre-test for face validity and reliability, and then were integral to the final questionnaire sent out in the sample. The collected-data was analyzed using structural equation modeling in which the issues of research were empirically answered. In general, the research includes three parts: (1) item generation, (2) pre-test, and (3) main survey or final test.

This study used AMOs as the software package for the structural equation modeling solution. Besides, SPSS was utilized for descriptive statistics and reliability analysis with Cronbach's alpha. Structural equation modeling is a powerful alternative to other multivariate techniques that are limited to representing only a single relationship between dependent and independent variables. As recognized by numerous studies, structural equation modeling has some advantages over other statistical techniques. Based on the studies of Koufteros (1999) and Koufteros et al. (2001), the research steps and methods included instrument development, an exploratory analysis, a confirmatory factor analysis, and a test of a structural model [42, 43]. Item

generation began with theory development and a literature review. Items were evaluated through interviews with practitioners. Furthermore, the methods employed for the development and exploratory evaluation of the measurement scales for the latent variables in this study included corrected item-total correlations (CITC), exploratory factor analysis on the entire set, and reliability estimation using Cronbach's Alpha.

Exploratory factor analysis (EFA) was used to determine how many latent variables underlie the complete set of items. Cronbach's alpha is one of the most widely used metrics for reliability evaluation (Koufteros et al., 2001). These techniques are useful in the early stages of empirical analysis, where theoretical models do not exist and the basic purpose is exploration. However, these traditional techniques do not assess uni-dimensionality [44], nor can uni-dimensionality be demonstrated by either mathematical or practical examinations (Koufteros, 1999).

Several researchers have suggested the use of confirmatory factor analysis (CFA) with a multiple-indicator measurement model to assess uni-dimensionality [45]. Exploratory techniques can help us develop hypothesized measurement models that can subsequently be tested using confirmatory factor analysis (Koufteros, 1999). Confirmatory factor analysis is performed on the entire set of items simultaneously. Anderson et al. (1987) suggested that assessment of uni-dimensionality for sets of measurement items be made in the same model as the one that the researcher is interested in making statements about the uni-dimensionality of those measurement items [46].

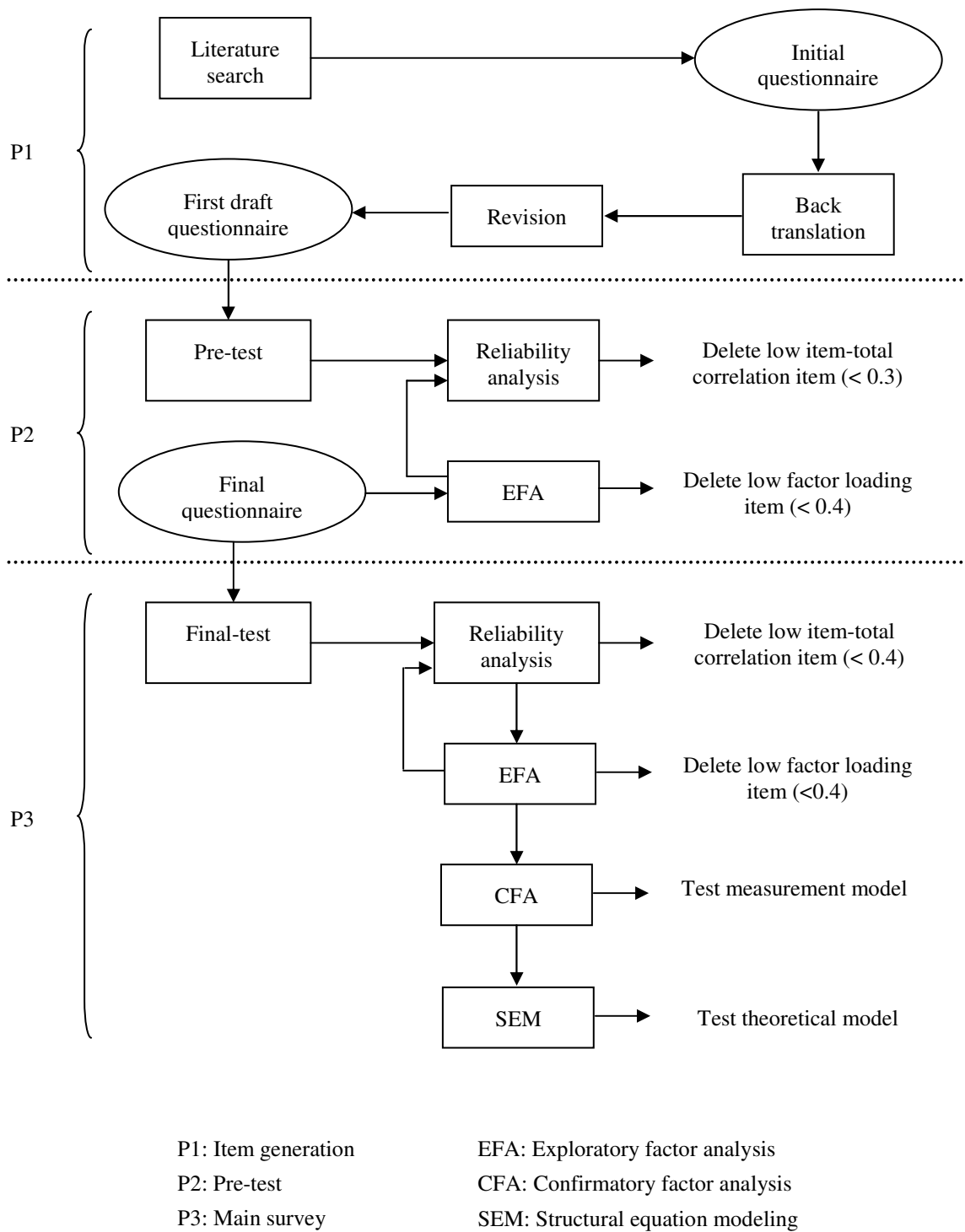


Figure 1. Research process.

Structural equation modeling (SEM) evaluates how well a conceptual model that includes observed variables and hypothetical constructs fits the obtained data [47]. A hypothetical construct accounts for the inter-correlations of the observed variables that define that construct [48]. The overall fit of a hypothesized model can be tested by using the maximum likelihood Chi-square statistic provided in the Amos (a software package for SEM, version 21) output and their fit indices such as the ratio of Chi-square to degrees of

freedom, goodness-of-fit index (GFI), the root mean square error of approximation (RMSEA), comparative fit index (CFI), normed fit index (NFI). Discriminant validity was assessed by comparing the average variance extracted (AVE) to the squared correlation between constructs. The AVE estimate is a complimentary measure to the measure of composite reliability (Koufteros et al., 2001). The significance and the meaningful of each indicate are followed Table 2.

Table 2. Key Goodness-of-fit Indicates

Type of fit (a)	Key index (b)	Levels of acceptable fit (c)
Absolute fit	Chi-square (χ^2)	$p > 0.05$ significance, $p =$ be exceeded 0.2 before non-significance is confirmed
	Root mean square error of approximation (RMSEA)	Used to correct the impact of sample size on χ^2 RMSEA between 0.05 and 0.08 still indicate satisfactory fit RMSEA between 0.09 and 0.095 still indicate considerate satisfactory fit. Value over 0.1 indicate poor-fit
	Goodness of fit index (GFI)	0 = poor fit 1 = perfect fit ≥ 0.9 : good fit
	Root mean squared residual (RMR)	RMR < 0.05: good fit
Comparative fit	Normed fit index (NFI)	0 = poor fit 1 = perfect fit > 0.9 : good fit
	Relative fit Index (RFI)	0 = poor fit 1 = perfect fit > 0.9 : good fit
	Incremental fit index (IFI)	0 = poor fit 1 = perfect fit > 0.9 : good fit
	Comparative fit index (CFI)	0 = poor fit 1 = perfect fit > 0.9 : good fit
Parsimonious fit	Parsimonious normed fit index (PNFI)	PNFI > 0.5
	Parsimonious goodness-of-fit index (PGFI)	PGFI > 0.5
	Parsimonious comparative fit index (PCFI)	PCFI > 0.5

Source: Adapted from Kelloway (1998) [49], Byrne (2001) [50], Kline (2005) [51] and Hair et al. (1995) [52].

4. Conclusion

This paper introduces the measurements for all the constructs, and the analytical procedures used to check instrument reliability and validity of each construct, item and the significance of the research hypotheses as well. On the other hand, the study discusses the sample selection and data collection, and the administration of the questionnaires. The measurement methods used in the study are presented to contribute to the analysis of the theoretical model. The methodology will help researchers test and develop a stable model in order to generate a more solid relationship among destination branding and tourist behavior.

References

- [1] Fyall, A., A. Leask, "Destination Marketing: Future Issues-Strategic Challenges", *Tourism and Hospitality Research* 7 (2007) 50.
- [2] Kotler, P. & Gertner, D., "Country as Brand, Product, and Beyond: A Place Marketing and Brand Management Perspective", *Journal of Brand Management*, Vol. 9, No. 4-5 (2002) 249.
- [3] Freire, J. R., "Local People, a Critical Dimension for Place Brands", *Journal of Brand Management* 16 (2009) 1.
- [4] Lodge, C., "Success and Failure: The Stories of the two Countries", *Journal of Brand Management*, 9(4-5) (2002) 372.
- [5] Gilmore, F., "A Country - Can it be Repositioned? Spain - The Success Story of Country Branding", *Journal of Brand Management* 9, 5 (2002) 281.
- [6] Hall, D., "Brand Development, Tourism and National Identity: The Re-imaging of Former Yugoslavia", *Journal of Brand Management* 9 (2002) 323.
- [7] Thi Lan Huong Bui, "Destination Branding: The Comparative Case Study of Guam and Vietnam", *Journal of International Business Research*, Volume 9, Special Issue 2 (2010).
- [8] Pike, S., "Tourism destination branding complexity", *Journal of Product & Brand Management*, 14 (2005) 258.
- [9] Anh Tuan Nguyen, "Developing and promoting the brand name of Vietnam Tourism", *Traveling Department, Vietnam National Administration of Tourism*, 2009.
- [10] Ritchie J. R. B. & Ritchie, J. B., *The Branding of Tourism Destination: Past Achievements and Future Challenges*, International Association of Scientific Experts in Tourism, 1998.
- [11] Pike S., *Destination Marketing: An Integrated Marketing Communication Approach*, Elsevier Inc., First Edition, 2008.
- [12] Thu, H., "80-85% international tourists do not revisit Vietnam". Available at <http://www.thesaigontimes.vn/Home/xahoi/sukien/88284/80---85-du-khach-quoc-te-khongmuon-quay-lai.html> (Read 05.12.2012).
- [13] Phuong Giang Quach, "Examining International Tourists' Satisfaction with Hanoi Tourism", *Tourism Research, EMACIM Studies*, 2013.
- [14] Anholt, S., *Nation-brand and the Value of Provenance, Destination Branding: Creating the Unique Destination Proposition*, Isevier Ltd. Oxford, 2002.
- [15] Bigne, J. E., Sanchez, M. I., Sanchez, J., "Tourism Image, Evaluation Variables and after Purchase Behavior: Inter-relationship", *Tourism Management* 22, 6 (2001) 607.
- [16] Konecnik, M. & Gartner, W., "Customer-based Brand Equity for a Destination", *Annals of Tourism Research*, 34 (2007) 400.
- [17] Septchenkova, S. & Mills, J., E., "Destination Image a Meta-Analysis of 2000 2007 Research", *Journal of Hospitality Marketing & Management*, 19 (2010) 575.
- [18] Boo, S., Busser, J., Baloglu, S., "A Model of Customer-based Brand Equity and Its Application to Multiple Destinations", *Tourism Management* 30 (2009) 219.
- [19] Baloglu, S., K. McCleary, "A Model of Destination Image Formation", *Annals of Tourism Research* 26 (1999) 868.
- [20] Beerli, A., Martín, J. D., "Factors Influencing Destination Image", *Annals of Tourism Research* 31 (2004) 657.
- [21] Keller, K. L., *Strategic brand management: Building, measuring, and managing brand equity*, New Jersey: Prentice Hall, 2003.
- [22] Aaker, D. A., *Managing Brand Equity: Capitalizing on the Value of the Brand Name*, New York: The Free Press, 1991.
- [23] Berry, L. L., "Cultivating Service Brand Equity", *Journal of the Academy of Marketing Science* 28 (2000) 1, 128-137.
- [24] Berry, L. L., Seltman, K. D., "Building a Strong Services Brand: Lessons from Mayo Clinic", *Business Horizons* 50 (2007) 199.

- [25] Oh, H., "The Effect of Brand Class, Brand Awareness, and Price on Customer Value and Behavioral Intentions", *Journal of Hospitality and Tourism Research*, 24 (2000) 136.
- [26] Baker, B., "Destination Branding for Small Cities: The Essentials for Successful Place Branding", Portland: Creative Leap Books, 2007.
- [27] Ekinci, Y., Sirakaya, E., "An Examination of the Antecedents and Consequences of Customer Satisfaction", in *Consumer Psychology of Tourism, Hospitality and Leisure*, 2004.
- [28] Gets, D., O'Neill, M., Carlsen, J., "Service Quality Evaluation at Events through Service Mapping", *Journal of Travel Research* 39 (May 2001) 380.
- [29] Heung, V. & Cheng, E., "Assessing tourist's satisfaction with shopping in the Hong Kong special administrative region of China", *Journal of Travel Research*, 38 (2000) 396.
- [30] Kozak, M. & Rimmington, M., "Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination", *Journal of Travel Research*, 38 (2000) 260.
- [31] Petrick, J. F., "Are Loyal Visitors Desired Visitors", *Tourism Management*, 25 (2003) 463.
- [32] Oppermann, M., "Tourism Destination Loyalty", *Journal of Travel Research*, 39(August 2000) 78.
- [33] Chen, Tsai, "How Destination Image and Evaluative Factors Affect Behavioral Intentions?", *Tourism Management* 28 (2007) 1115.
- [34] Ferns B. H., Walls A., "Enduring Travel Involvement, Destination Brand Equity, and Travelers' Visit Intentions: A Structural Model Analysis", *Journal of Destination Marketing & Management* (2012) 1.
- [35] Bianchi C., Pike S., Australia's Brand Equity as a Tourism Destination for Latin American Consumers, ANZMAC (2009) 1.
- [36] Keller, K. L., "Conceptualizing, Measuring and Managing Customer-based Brand Equity", *Journal of Marketing*, 57 (1993) 1.
- [37] Huh J., "Destination Branding as an Informational Signal and Its Influence on Satisfaction and Loyalty in the Leisure Tourism Market", Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 2006.
- [38] Kim, S., Han, H. S., Holland, S. & Byon, K., "Structural Relationships among Involvement, Destination Brand Equity, Satisfaction, and Destination Revisit Intentions", *Journal of Vacation Marketing*, 15 (2009) 349.
- [39] Bagozzi, R. P., "The Effects of Arousal on the Organization of Positive and Negative Affect and Cognitions: Application to Attitude Theory", *Structural Equation Modeling* 1 (1994) 222.
- [40] Malhotra, N., "Marketing Research, An Applied Orientation", London: Prentice Hall, 1999.
- [41] Zikmund, W.G., "Business Research Methods", Fort Worth, TX: The Dryden Press, 1997.
- [42] Koufteros, X. A., "Testing a Model of Pull Production: A Paradigm for Manufacturing Research using Structural Equation Modeling", *Journal of Operations Management*, 17 (1999) 467.
- [43] Koufteros, X. A., Vonderembse, M. A. & Doll, W. J., "Concurrent Engineering and its Consequences", *Journal of Operations Management*, 19 (2001) 97.
- [44] O'Leary-Kelly, S. W. & Vokurka, R. J., "The Empirical Assessment of Construct Validity", *Journal of Operations Management*, 16 (1998) 387.
- [45] Segar, A., "Assessing the Unidimensionality of Measurement: A Paradigm and Illustration within the Context of Information Systems research", *Omega* 25 (1997) 107.
- [46] Anderson, J. C., "An Approach for Confirmatory Measurement and Structural Equation Modeling of Organizational Properties", *Management Science* 33 (1987) 525.
- [47] Hoyle, R. H., *Structural Equation Modeling: Concepts, Issues, and Applications*, Thousand Oaks, CA: Sage, 1995.
- [48] Bollen, K. A., Lennox, R., "Conventional Wisdom on Measurement: A Structural Equation Perspective", *Psychology Bulletin* 110 (1991) 305.
- [49] Kelloway, E. K., *Using LISREL for structural equation modeling: A researcher's guide*. Thousand Oaks, CA: Sage, 1998.
- [50] Byrne, B. M., *Structural Equation Modeling with AMOS: Basic, Concept, Applications, and Programming*, New Jersey: Lawrence Erlbaum Associates, 2001.
- [51] Kline R. B., *Principles and Practice of Structural Equation Modeling*. New York: The Guilford Press, 2005,
- [52] Hair, J. F., Anderson, R. E., Tatham, R. L., Black, W. C., *Multivariable Data Analysis Reading*, USA: Prentice Hall International Editions, 1995.