A survey on impact of border markets on customer satisfaction

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A R T I C L E I N F O	A B S T R A C T
	Border markets in many countries have been considered as the most important bridge for building a financial connection between inside and outside the countries. In this paper, we present an empirical study to find the impact of border market on customer satisfaction. The proposed study of this paper considers the effects of eight factors including competitive brand, foreign investment, management of imported goods, governmental supportive rules, monetary policies, supply chain management, buyers, marketing planning and import management on customer satisfaction who purchase on border markets. The proposed model of this paper designs and distributes 400 questionnaires among some experts and uses factor analysis and structural equation modeling to test nine hypotheses. The results indicate that there are some strong evidences that all nine factors impact customer satisfaction and foreign investment has the highest impact on customer satisfaction followed by supply chain management, marketing planning import management.

1. Introduction

Border markets in many countries have been considered as the most important bridge for building a financial connection between inside and outside the countries. The idea of developing such market is to get rid of many existing barriers inside the countries (Hollowell, 1996). This helps economy grow faster in these regions since people could establish their business and build a connection with other counties more quickly. Many foreigners are also able to travel to these regions without involvement in rules and regulations to get necessary visa permission to enter the region. Customer satisfaction in these areas play essential role on developing the region. There are literally tremendous efforts on learning the effects of different factors on customer satisfaction.

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Lin (2007) provided a model of customer satisfaction by using a nonlinear fuzzy neutral network model for measuring the effects of various factors on customer satisfaction. Lin (2007) reported that the interpersonal-based service encounter is better than the technology-based one in terms of functional quality, while the technology-based service encounter is better than the interpersonal-based one in technical quality. The functional quality reported a positive and significant impact on customer satisfaction; the service quality also had a positive and significant impact on service value; the service value had a positive and significant influence on customer satisfaction. Lin concluded that the service encounter had a positive and significant impact on relationship involvement and the relationship involvement had a positive and significant influence on customer satisfaction.

Esbjerg et al. (2012) developed a conceptual model for investigating customer satisfaction with individual grocery shopping trip experiences within an overall 'disconfirmation of expectations model' of customer satisfaction. They explained that understanding what causes satisfaction/dissatisfaction with individual shopping trips is necessary to describe overall, cumulative satisfaction with a retailer. They also proposed a framework synthesizes and integrated multiple central concepts from various research streams into a common framework for investigating shopping trip satisfaction. Ueltschy et al. (2009) reported that cultural differences with the Chinese respondents perceiving significantly higher service quality and expressing greater customer satisfaction when performance was high and expressing less customer satisfaction when performance was low than do the Japanese and Korean respondents.

Chi and Gursoy (2009) investigated the relationship between employee and customer satisfaction. They also examined the effect of both on a hospitality firm's financial performance utilizing service-profit-chain framework as the theoretical base. They investigated the relationship between customer satisfaction and financial performance; financial performance; employee satisfaction; and financial performance. Besides, they investigated the mediating impact of customer satisfaction on the indirect relationship between employee satisfaction and financial performance. Their findings recommended that while customer satisfaction had positive influence on financial performance, employee satisfaction had no direct effect on financial performance and there was an indirect relationship between employee satisfaction and financial performance. Slevitch and Oh (2010) explained in their study that there is a non-linear nature of the customer satisfaction function. Johnson et al. (2002) applied arguments from the economics, sociology psychology, and marketing domains to forecast systematic differences in aggregate customer satisfaction across both countryside and industries. These anticipations were then examined using a database created from three broad-based national satisfaction surveys in Germany, Sweden, and the United States. Based on the results of the survey, Johnson et al. (2002) concluded that across countries, satisfaction was the highest for competitive products and lower for government and public agencies.

The study also provided some supports for the use of national indices for making meaningful comparisons of satisfaction on a broad scale. Flint et al. (2011) reported that customer value anticipation can be considered as a strong driver of satisfaction and loyalty, with satisfaction acting as a mediator for loyalty. Singh and Ranchhod (2004) performed an empirical investigation on the relationship between market orientation and business performance in the context of British machine tool industry. Their findings recommended that customer orientation and customer satisfaction orientation had a stronger influence on performance than the other dimensions. They also believed that managers could implement the multidimensional conceptualization to develop particular types of orientations required for better performance. Moskalev (2010) investigated the relationship between host country laws restricting the capability of foreign bidders to conduct cross-border mergers and acquisitions (M&As) and the dynamics of domestic and foreign markets for corporate control. They reported that, as governments, especially governments of less wealthy, faster growing economies, relax their cross-border M&A laws, foreign bidders try to increase the number of cross-border M&As. The likelihood that foreign bidders build cross-border M&As in which they collect a

controlling stake in the target was bigger in host countries with less restrictive cross-border M&A laws. In such countries, foreign bidders were also more likely to implement cross-border M&As than cross-border joint ventures as the means for entering the market.

2. The proposed study

There are 45 questions for measuring the impacts of 9 items and the sample size of the proposed study is calculated as follows,

$$n = \frac{N \times z_{\alpha/2}^2 \times p \times q}{\varepsilon^2 \times (N-1) + z_{\alpha/2}^2 \times p \times q}, \tag{1}$$

where N is the population size, $p = 1 - q$ represents the yes/no categories, $z_{\alpha/2}$ is CDF of normal distribution and finally ε is the error term. Since we have $p = 0.5, z_{\alpha/2} = 1.96$ and $N=1000$, the number of sample size is calculated as $n=385$. The questionnaires have been distributed among 400 people Cronbach Alpha (Cronbach, 1951) was calculated as 0.86, which means the results are reliable. In our survey, there were 383(95.8%) male and 17(4.2%) female. In addition Fig. 1 shows their job experiences.
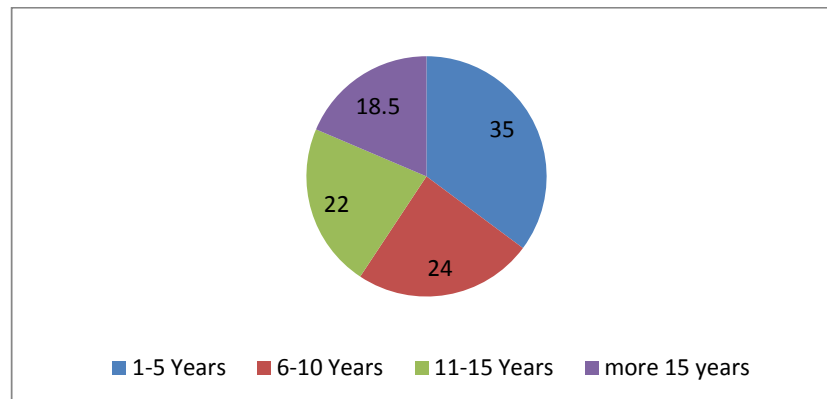

Fig. 1. Job experiences of the participants (%)

As we can observe from Fig. 1, over 65% of the participants maintained at least 5 years of job experiences. In terms of educational background, 38.5% only finished high school, 51.3% finished a two years university college and the remaining people maintained a bachelour degree of science.

3. The results

The main question of the survey is associated with important factors influencing customer satisfaction in free zone areas. In order to answer this question we need to use factor analysis. Kaiser-Meyer-Olkin measure of sampling adequacy yields 0.78 and the Chi-Square for Bartlett's test of Sphericity is 4784.497 with 903 degree of freedom and p-value of 0.000. These results confirm that the results are statisically meaningful and we can use factor analysis. Table 1 shows details of our findings for factor analysis.

Each eigenvalue is the value of all the components of variance that could be explained by that factor and the higher the value, the more it explains. The factors whose eigenvalues are greater than one are the best. As we can observe from the results of Table 1, 9 factors determine 49.33 of total variance of variables.

Table 1
The results of Factor Analysis

Factor	Eigenvalue	% of variance	Accumulated
1	6.372	14.817	14.817
2	3.271	7.607	22.425
3	2.160	5.024	27.448
4	2.082	4.842	32.290
5	1.745	4.059	36.349
6	1.564	3.638	39.987
7	1.373	3.193	43.180
8	1.345	3.129	46.309
9	1.302	3.028	49.336

The first factor maintains an eigenvalue of 6.37, which represents 14.18% of total variance. In order to finf the optimal number of factors, we use Scree plot and Fig. 2 shows details of our results.
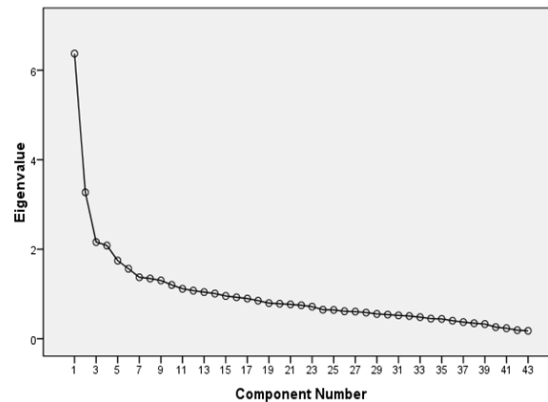

Fig. 2. Scree plot

As we can observe from the results of Fig. 2, three factors represent the optimal number of important components. Table 2 shows details of communality of different questions of the survey. The lowest number belogs to item 17, Sanitary issues , and the highest number belongs to item 33, which is culture adatibility .

Table 2
The results of communality

Item	Communality	Item	Communality
q1	.395	q24	.414
q2	.478	q26	.514
q3	.473	q27	.422
q4	.540	q28	.421
q5	.490	q29	.358
q6	.540	q30	.359
q7	.520	q31	.435
q8	.556	q32	.431
q9	.467	**q33**	.750
q10	.374	q34	.682
q11	.403	q35	.467
q12	.451	q36	.572
q13	.399	q37	.503
q14	.534	q38	.365
q15	.339	q39	.456
q17	.329	q40	.737
q18	.474	q41	.632
q19	.471	q42	.661
q20	.491	q43	.701
q21	.446		
q22	.511		
q23	.488		

The following five hypotheses are associated with the proposed study,

1. Competetive brand influences customer satisfaction.
2. Foreign investment influences customer satisfaction.
3. Management of imported goods influences customer satisfaction.
4. Governmental supportive rules and regulations influence customer satisfaction.
5. Monetary policies influence customer satisfaction.
6. Supply chain management influences customer satisfaction.
7. Buyers influence customer satisfaction.
8. Marketing planning influences customer satisfaction.
9. Import restrictions influence customer satisfaction.
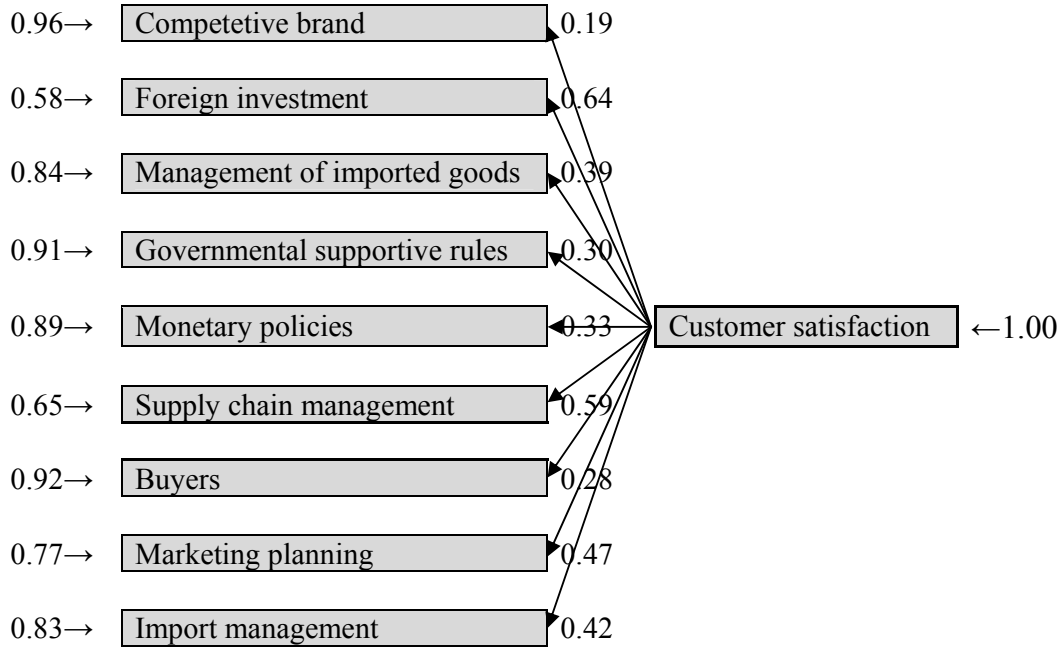
Chi-square = 51.57, df=27, P-Value = 0.00298, RMSEA = 0.048

Fig. 2. The results of factor analysis in standard form

Table 3
The results of t-student values along with testing hypotheses

Factors	Standard coefficients	t-value	Result
Competitive brand	0.19	3.14	Confirmed
Foreign investment	0.64	11.41	Confirmed
Management of imported goods	0.39	6.79	Confirmed
Governmental supportive rules	0.30	5.14	Confirmed
Monetary policies	0.33	5.69	Confirmed
Supply chain management	0.59	10.47	Confirmed
Buyers	0.28	4.82	Confirmed
Marketing planning	0.47	8.26	Confirmed
Import management	0.41	7.13	Confirmed

As we can observe from the results of Table 3, all nine hypotheses of this survey have been approved, which means all factors influence customer satisfaction, significantly. In other words, an increase of one percent in competitive brand will increase customer satisfaction by 0.19%. According to the

results of Table 3, foreign investment has the highest impact on customer satisfaction followed by supply chain management, marketing planning import management.

4. Conclusion

In this paper, we have presented an empirical study to detect the effects of different factors in border market on customer satisfaction. The proposed study of this paper has considered the impacts of eight factors including competitive brand, foreign investment, management of imported goods, governmental supportive rules, monetary policies, supply chain management, buyers, marketing planning and import management on customer satisfaction who purchase on border markets. The proposed model of this paper designed and distributed 400 questionnaires among some experts and used factor analysis and structural equation modeling to examine nine hypotheses. The results have indicated that there are some strong evidences that all nine factors impact customer satisfaction and foreign investment has the highest impact on customer satisfaction followed by supply chain management, marketing planning import management.

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