

Potential for utilization of the European customer satisfaction index in agro-business

Možnosti využití evropského indexu spokojenosti zákazníka v agro-businessu

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Abstract: The topic of this article focuses on customer satisfaction. The customer satisfaction is considered as a crucial factor for the success of all market organisations. The subject is very often discussed from the theoretical point of view. This contribution is aimed at opportunities of evaluation and measurement of customer satisfaction by the European customer satisfaction index that consecutively should contribute to more effective marketing management in firms or any organizations. The objective was to adapt the European customer satisfaction index methodology to Czech environment. The adapted methodology was applied on tourism market. In conclusion, there was specified the importance and possibilities of using the European customer satisfaction index in real business environment.

Key words: marketing management, customer satisfaction, European customer satisfaction index

Abstrakt: Příspěvek se zabývá problematikou spokojenosti zákazníka. Spokojenost zákazníka je považována za jeden z rozhodujících faktorů úspěchu většiny tržních organizací. Toto téma bývá velmi často diskutováno pouze z teoretického úhlu pohledu, a proto tento článek ukazuje možnosti využití monitorování spokojenosti zákazníka pomocí Evropského indexu spokojenosti zákazníka, jenž mají následně přispět k efektivnějšímu marketingovému řízení firmy či jiné organizace. Cílem práce bylo přizpůsobit metodiku Evropského indexu spokojenosti zákazníka českému prostředí. Nalezená metodika byla následně odzkoušena na trhu cestovního ruchu. Na závěr došlo k vymezení jeho významu a možností praktického využívání v tržním prostředí.

Klíčová slova: marketingové řízení, spokojenost zákazníka, Evropský index spokojenosti zákazníka

INTRODUCTION

Marketing Management is generally considered as the main factor of the successful business activities on the present level of society development. The utilisation of marketing principles in management of the firms went through a considerable evolution which meant putting emphasis on different marketing tools at each phase (for example advertisement and sales promotion, the analysis of competitors, supplier and customer relationship etc.). The most recent research indicated that the *Customer Satisfaction* is the crucial factor for the success of the firms and companies (Chalupský 2001).

“Customer Satisfaction” must be seen at all levels of the satisfaction of needs and the requirements, beginning with satisfaction of physiological needs to educa-

tion and self-fulfilment needs. Also the firm has to be considered in more general point of view, for example from manufacturing organisation to state authorities or education organisations etc. The success of firms is more and more dependent on the co-ordination of their resources, particularly on *intangible* ones, such as *information* about facts, know-how, opinions etc. (Ryglová et al. 2003). Acceptation of this fact can help to answer questions concerning utilisation of the principles of marketing management in the firms and non-production institutions including firms in agro-business.

The intangible resources are based on various social relations inside and outside of the firm and they are hardly measurable. Their importance is also stressed by the fact that the customers prefer “alternative” indicators, which are not directly connected with

the product or service. They base their decisions on “alternative” indicators, such as the image of the firm or brand.

The growing significance of intangible assets invokes need for construction of tools suitable for their evaluation and measurement. This requirement is especially up-to-date for the *customer satisfaction evaluation* at the given stage of measurement tools development in marketing management.

The theoretical basis for definition of the customer satisfaction comes from the “Theory of Conflict (discrepancy)” (Porter 1961). It is based on the set of customer attitudes and perceptions of service (or product) characteristics and its *consequential* (post-purchase) confrontation with the actual service characteristics. After this confrontation, the customer feels either “harmony” or “discrepancy” between the expectation and the real experience.

The *conflict* can be in the two alternatives: *positive* – if the experience outweighs the expectation which leads to *customer satisfaction*, and *negative* – if the experience did not reach the expectation which leads to *disappointment*.

A very significant factor is also time during which the customer obtains the sense of satisfaction or disappointment. Repeated positive experience leads to cumulative satisfaction. This concept of customer satisfaction is very up-to-date and relevant for the relationship marketing used in the firms with consistent marketing policy. Particular theories of customer satisfaction can be found above all in publications of Anderson et al. (1994); Fornell, Wernerfelt (1994) and others.

One of the significant factors of performance and efficiency of a firm is regular monitoring of information concerning customer satisfaction, his perceiving of our product or service and whether our organization fulfils his expectations. It means using feedback (Becková 2004).

Many firms have already accepted this fact and started to follow their customers’ satisfaction regularly. Firms can use various techniques for monitoring, for example different forms of mystery shopping, from informal dialogue with a client to specific types of questionnaire research, which can consecutively be a source for satisfaction quantification (Ryglová et al. 2004).

Many research activities at universities tried to measure customer satisfaction by indexes. The most successful ones were at Sweden (the Swedish Barometer of Consumer Satisfaction) and at the United States (The American Index of Customer Satisfaction). This model is being continually updated and developed and individual countries in Europe adapted it to their conditions (German, Swiss model).

The growing interconnection of the EU countries and the opportunity for comparison of results at the individual countries contributed to formation of the *ECSI – European Customer Satisfaction Index*.

By using ECSI methodology, it is also possible to diagnose external environment of organization, according Tomšík (2004) and Hron (2004). This methodology can be suitable for customer satisfaction monitoring also in agro-business subjects (processing firms, firms offering services, etc.). Obtained results can be used for decision-making process about a more effective strategy or development of offered services or products.

MATERIAL, METHODS AND OBJECTIVE

The objective of this study was to test the methodology of ECSI on the Czech service market, modification of that methodology and finding suitable measurable variables for the ECSI model according to the specifics of the Czech market. In conclusion we specify the importance of using ECSI in real business environment. For this, the research tourism market was chosen. We counted indexes between two competitive firms in Brno. The chosen firms requested their real names not to be used.

The European model of customer satisfaction (ECSI) is defined by seven hypothetical variables (Figure 1) and the specific number of measurable variables determines each of them.

The model can describe the relationship among individual variables (Figure 1).

The hypothetical variable *image* is closely related to the product (service), brand and the firm. It is the starting point of the customer satisfaction analysis.

The *customer expectation* is connected with individual consumer expectations for the product (service). The expectations are influenced by the promotion of the product or service and by the consumer previous experience. The expectation has a direct impact on the customer satisfaction. The perceived quality of service/product concerns the core product on one side and also its complementary services (service, presentation of product qualities, description of the product/service, opening hours, staff qualities etc.) on the other side.

The *perceived value* is closely connected with the price of the product/service and with the expected quality. The perceived value is measured by the ratio of price and perceived quality.

The *customer complaints* are the result of comparison between performance and expectations. The complaint arises from the negative dissonance in expectations.

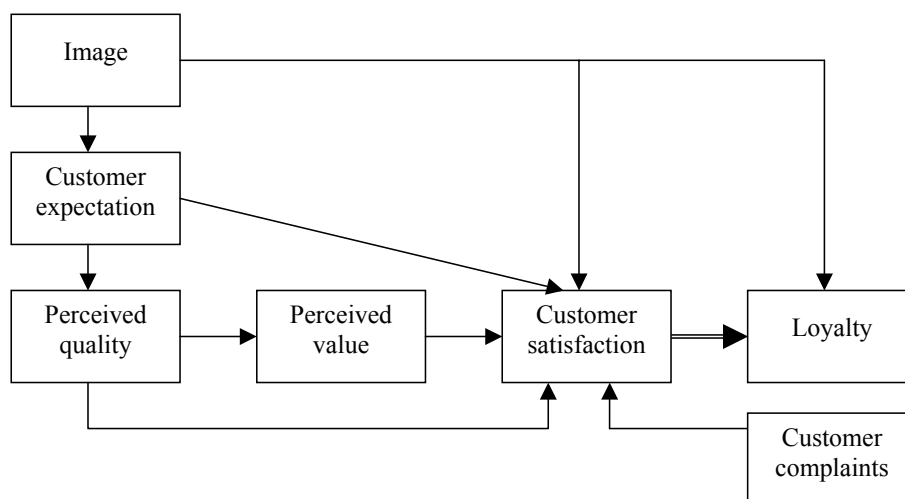


Figure 1. Model ECSI

Source: Āaĉo, Mateides 2002

The *loyalty* customer arises in case of positive dissonance. It becomes obvious by repeated purchases, recommendation and price tolerance.

Each of the hypothetical variables must be determined by several measurable variables and then set by the following pattern:

Consumer satisfaction index – ε

$$\varepsilon_j = \frac{\sum_{i=1}^n v_{ij} \cdot x_{ij}}{10 \sum_{i=1}^n v_{ij}}$$

ε_j – satisfaction index of j customer

v_{ij} – weight of i – measurable variable for j -value

x_{ij} – value of measurable variable

n – number of measurable variables

number 10 is connected with used scale (1–10)

The variable v_{ij} is determined as covariance between the value x_{ij} and y_{ij} for each of the examined customers, where y_{ij} is the sum of all measurable variables for j -customer.

Measuring the influence of the individual measurable variables on the hypothetical variable, the relationship among individual hypothetical variables etc, can follow the analysis.

It is very important to know that the number and defining the individual measurable variables on the given hypothetical variables is not constant but it is dependent on the level (firm, branch, country etc.) of provided research.

The recommended model of calculation of ECSI is based on the condition that for considering the customer perceiving level we use a questionnaire

survey among the clientele, where the questions are constructed as a Likert scale. It is necessary to set the level of importance of individual satisfaction features by statistical method (covariance) or by some expert method (for example: method of pair comparison, allocation methods etc.). The evaluation of above-mentioned dates is possible with the support of standard statistical techniques and computers.

RESULTS AND DISCUSSION

This methodology of the construction of the customer satisfaction index was applied on services provided by travel agencies.

Hypothetical variables:

1. Image
2. Customer Expectation
3. Perceived Quality Of Service/Product
4. Perceived Value
5. Customer Satisfaction
6. Customer Complaints
7. Loyalty

The individual hypothetical variables for travel agencies can be defined by measurable variables as presented at the following example.

1. Image

The image is based on consumer satisfaction, provision merchant reports, and on analysis of competitors.

Measurable variables:

- Confidence in provided services (probability of substitution by competitive product)
- Stability of the travel agency
- Interest for the client (creating good relationship with clients)

- Flexibility and innovations to requirements and problems of clients (Number of new offered products in a year, quickness of reaction to changes in demand or to special request)
- Reasons for the first purchase
- Brand (general knowledge about the brand, comparison with the competitive ones)

2. Customer expectations

Measurable variables:

- Probability of disappointment from purchased service
- Pleasant and suitable environment and atmosphere of travel agency
- Availability of products and services
- Flexibility

3. Perceived quality

Measurable variables:

- Quality of the entire package of purchased services (for example excursion or tour)
- Quality level of complementary services (tour guide, additional program, trips, evening programs, board etc.)
- Customer service and provided information (presentation of video sequence of the destination during the phase of decision making in the purchase, delivery of air-ticket, etc.)
- Various range of offered travel and tourism products
- Credibility, flexibility and precision of provided services (e.g. the level of organisation of the tour)
- Clarity and transparency of provided services

4. Perceived value

Measurable variables:

- Evaluation of price level in comparison with the given quality of provided services
- Quality of promotion campaign
- Professionalism and goodwill of providers
- Visual aspect, willingness and readiness of staff at travel agencies and at complementary services
- Statistics of received complaints, praises, accidents

5. Customer satisfaction

Measurable variables:

- Level of satisfaction of consumer needs and expectations
- Overall satisfaction
- Satisfaction with individual additional services
- Satisfaction with staff manners

6. Customer complaints

Measurable variables:

- Number of complaints

- Level of satisfaction with handling a complaint
- Flexibility and quickness of handling a complaint

7. Customer loyalty

Measurable variables:

- Length of the time of clients use of the travel agency services
- Probability of repeated purchase
- Number of contacts between client and travel agency at specific period (1–3 years)
- Number of positive references about the provided services (to relatives, to friends, etc.)
- Reasons of possible substitution by a competitive agency
- Probability of substitution by a competitive agency, which offer similar products, but for lower prices
- Customer fluctuation among various travel agencies in the period of 1–3 years
- Expected customer fluctuation among various travel agencies in the next year (or in 2 years).

For better illustration, we also show used controllable variables in the sector of tourism services which are transported into a final questionnaire for a client. Then the customer circles his level of agreements with the given statement (1 = strong disagreement, 10 = full agreement).

The example of measurable variables used in questionnaire for travel agencies for examination of the level of consumer satisfaction:

Questionnaire

Please, circle the level of your agreement with following statements. (1...I strongly disagree, 10...I strongly agree)

1. Image

1.1. I completely trust to travel agency's services.

1 2 3 4 5 6 7 8 9 10

1.2. Travel agency is very flexible to individual requests of their clients.

1 2 3 4 5 6 7 8 9 10

2. Expectation

2.1. Surroundings and atmosphere of our agency looks very representative and pleasant.

1 2 3 4 5 6 7 8 9 10

2.2. Services of our agency are easily accessible.

1 2 3 4 5 6 7 8 9 10

3. Perceived quality

3.1. Purchased services at our travel agency are of high quality.

1 2 3 4 5 6 7 8 9 10

3.2. Quality of complementary services is also on high level.

1 2 3 4 5 6 7 8 9 10

4. Perceived value

4.1. Price level of provided services corresponds to its quality.

1 2 3 4 5 6 7 8 9 10

4.2. Travel agency chose suitable promotion campaign.

1 2 3 4 5 6 7 8 9 10

5. Customer satisfaction

5.1. Purchased serviced of this agency always fulfilled my expectation and needs.

1 2 3 4 5 6 7 8 9 10

5.2. I have always experienced with professional and helpful behaviour in the agency.

1 2 3 4 5 6 7 8 9 10

6. Customer complaints

6.1. My complaints have been handled to my satisfaction.

1 2 3 4 5 6 7 8 9 10

6.2. I have met positive attitude during arranging my complaint.

1 2 3 4 5 6 7 8 9 10

7. Loyalty

7.1. In case of small price reduction of competitive product, I would probably stay loyal to this travel agency.

1 2 3 4 5 6 7 8 9 10

7.2. In case of significant price reduction of competitive product I would probably stay loyal to this travel agency.

1 2 3 4 5 6 7 8 9 10

Testing ECSI methodology and research of customer satisfaction among travel agencies was done during summer 2004. The choice of measurable variables was provided according to experts' opinions. Chosen suitable variables were transformed into scale questions in the questionnaire which was filled in by 144 respondents. The respondents were asked personally "face to face" in the area of the researched travel agency. The number of unselected sample 1(travel agency 1) was 82 respondents and sample 2 was 62 respondents. An algorithm prepared just for this purpose processed the results. The Table 1 show gained results.

Table 1. Mutual competitiveness of chosen travel agencies
Sample 1 (range of sample: 82)

Variable	Weight	Total index	Total index (%)
Customer satisfaction	0.754, 0.924, 0.686, 0.682, 0.616, 0.645, 0.673	0.901656425	90
Image	1.525	0.863414634	86
Customer complaints	1.500, 1.100	0.845384615	85
Perceived quality of service/product	0.534, 0.914, 1.097, 0.548, 0.415, 0.603	0.782866359	78
Perceived value	0.837, 1.320, 1.131	0.816539689	82
Customer expectation	0.546, 0.702, 0.637, 0.679, 0.609	0.89332339	89
Loyalty	1.979, 2.720, 1.077	0.819972956	82
ECSI		0.846165438	85

Sample 2 (range of sample: 62)

Variable	Weight	Total index	Total index (%)
Customer satisfaction	1.257, 1.618, 1.611, 1.489, 1.511, 2.066, 1.596	0.865142276	87
Image	2.85	0.838709677	84
Customer complaints	0.222, 0.222	0.616666666	62
Perceived quality of service/product	2.643, 3.159, 1.941, 1.619, 1.488	0.602016975	60
Perceived value	2.144, 2.014, 1.276	0.796160005	80
Customer expectation	1.545, 1.919, 1.025	0.848749279	85
Loyalty	5.820, 5.517, 2.265	0.646797541	65
ECSI		0.744891774	74

Source: Own calculation

Total indexes were counted in values 85% for sample 1 (first travel agency) and 74% for the second tested travel agency. The above-mentioned results showed a quite perspective position for both travel agencies in Brno city centre. Both agencies were evaluated in the upper half of a positive scale. In spite of this fact, first travel agency reached the better evaluation. The important differences can be seen among hypothetical variables Perceived Quality (travel agency 1: 78%, (travel agency 2: 60%), Customer Complaints (travel agency 1: 85%, (travel agency 2: 62%) and Loyalty (travel agency 1: 82%, (travel agency 2: 65%), which are competitive advantages for first travel agency and in reverse weaknesses for the second one. The second travel agency should effort to eliminate the revealed weaknesses, it means it should build a stronger relationship with their customers, strengthen customers' loyalty to the firm, which can be also done by higher quality, higher value of offered products or by better attitude to solving their clients' complaints.

CONCLUSION

The European Customer Satisfaction Index (ECSI) is a new economic indicator that measures customer satisfaction. It is based on customer evaluations of the quality of goods and services that are purchased in Europe and produced by both the European Community and the Non-European community companies that have substantial European market share. It is built upon national indices. There is a growing effort to implement this evaluation process in individual European countries in order to achieve both national indices and a European index.

It is assumed that ECSI should be firstly analysed to identify its differences with application in the EU countries, future profits and problems before launch of ECSI in the Czech Republic.

The calculated values of Customer Satisfaction Index can be used on various level:

- Clients: support in decision making about purchase of service or goods.
- Firms: support during the phase of creating firm development strategy, the results of customer satisfaction predict the trend in turnover, profit, positioning, comparison with competitors, comparison in time and also the index of customer satisfaction can also be used as a strong motivation aspect during evaluation of employees.
- Branch: comparison of the actual situation at given branch, or even comparison on the international level. Index can help to monitor new trends in the long run.

- Regions: for example comparison of conditions for tourism development, revealing competitiveness of the given region, comparison on the international level. Analogous as in the rest of the world we can consider the tourism in the Czech republic as the most perspective branch of the Czech economy. Even more important, despite being negligible on the macroeconomic level, is the contribution of tourism to unemployment rate and to the development of regions. Even in those, where there is a lack of other economic activities. As an important opportunity, there seems to be the development of new tourism products such as different forms of rural tourism: ecotourism, agro-tourism, etc.

This contribution describes the methodology of creating and application of consumer satisfaction index for travel agencies services in the Czech Republic. This methodology should help to improve travel agencies activities to support the formulation of their strategies, which leads to higher profits, increase of image perceptions and finally raising consumer satisfaction. The methodology was applied on two travel agencies. The obtained indexes describe quite a high level of customer satisfaction in the tested sector of tourism services. The gained values of over 80% can be considered as a really good result because according to psychological researches it is known that in spite of very high satisfaction, it is not usual to give a firm the best evaluation at 100%.

According to the obtained indexes in this study, it is possible to:

- Compare mutual competitiveness of the tested travel agencies
- Reveal weaknesses in customer satisfaction in the individual travel agencies
- Calculate the total index for branch, which can, in case of knowing competitive indexes on different or foreign markets, be an important indicator of the competitiveness of Czech firms

The advantage of ECSI is not only the possibility to quantify the level of customer satisfaction but also the fact that calculated indexes can be further statistically interpreted according to time, to clearly recognise some new trends in customer satisfaction development.

No matter what approach to data processing and evaluation we choose, we still have to think about the following important facts:

- Different characteristics of satisfaction can have different level of importance.
- Not only top management but the all firm employees should be introduced to the results of customer satisfaction monitoring.

It is important to emphasize that the new norms of ISO 9000 for the year 2000 pay high attention to customer satisfaction monitoring.

Management should pay regular attention to the customer satisfaction monitoring. However, when negative trends in development of satisfaction indexes appear, it should be considered as a warning of economical problems coming or higher employee fluctuation etc. Customer satisfaction monitoring makes real sense only if the top management asks regularly for customer satisfaction results. Commonplace for top management should also be an active support of these processes and provision of adequate human, financial and material sources.

The results presented in this paper are part of the project No. 4 GA 2112 Změny chování obchodní sféry vyvolané transformací ekonomiky a novými spotřebitelskými trendy (Behavioral changes of business sphere induced by the economy transformation and new consumption trends), which is conducted with support of the Grant Agency of the Czech Republic.

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Arrived on 8th February 2005

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