Например, на Филиппинах правительство открыло во всех провинциях так называемые справочные столы, чтобы направлять возвращающихся мигрантов на новые места работы и давать им рекомендации относительно самозанятости.

В Китае правительство поощряет возвращение уволенных работников из городов и промышленных зон в сельские районы и помогает им создавать свои предприятия, предоставляя кредиты и оказывая иную помощь. В Канаде государственная программа стимулирования предусматривает выделение 10 млн. канадских долларов Канадскому фонду развития молодежного предпринимательства, который организует обучение начинающих предпринимателей.

Можно сделать вывод, что мировой экономический кризис негативно повлиял на малые предприятия как в развитых, так и в развивающихся странах. При этом в развивающихся странах больше всего пострадали экспортно-ориентированные предприятия в силу их зависимости от спроса со стороны развитых стран. Основными факторами, отрицательно сказавшимися на состоянии малых предприятий во время кризиса, стали ограничение финансирования, снижение спроса и сокращение занятости.

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CUSTOMER SATISFACTION IN PUBLIC TRANSPORT SERVICES

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Annotation
The paper presents the results of customer satisfaction surveys. The subject of the research was services City Communication Company (Miejski Zakład Komunikacyjny — MZK) in Bielsko-Biala (Poland). The company provides regular bus communication service in the city.

Authors, using CSI and IPA methods evaluated satisfaction of customers and verified factors which influence on the satisfaction.

Key words: customer satisfaction, CSI, IPA, transport services.

Introduction

The existence of many companies on the market is conditioned with a number of satisfied customers. Customers are the key factor of the existence and company development on the market. For building and maintaining a healthy relationship with the customer, organizations need to understand and meet the expectations of its customer. Therefore customers satisfaction must be in the focus of managers, who must master the methods of satisfaction survey.

It is not easy to recognize and satisfy the consumers' needs, expectations and requirements. Knowing them doesn't guarantee success on the market, because consumer behaviour is not rational. All decisions made by the consumers, are affected by many factors, including economic, such as: incomes, price, savings, loans, the impact of marketing instruments, and non-economic, such as: demographic, social or psychological ones. Satisfied customers return to buy more, and they tell other people about their experiences.

Theoretical background

Customers are the key factor of the existence and development of a company on the market. Products or services, that are a source of satisfaction, provide the desirable value to their consumers, at least in an sufficient degree.

The consumer need means a demand for specific goods and services. According to J. Senyszyn: "Consumer need is a state of indispensability of products possession or use, beeing a result of achieved level of development of the human environment and his requirements as a bio-psycho-social structure". All the consumption needs refer to with the products of human labour. Another definition says, that the need is a potential or actual condition of the absence of something, what is necessary to keep a person alive and allows him for individual development, gaining and maintain a certain social status, etc. Needs provide a discomfort associated with the lack of satisfaction caused by shortage of tangible or intangible values in the certain situation. There are few fundamental human needs — but human desires have unlimited character.

Customer satisfaction is seen as answer to completion and fulfilment of needs it is something that influences apparent assessment of all the services and products. User satisfaction is defined as: the overall level of compliance with user expectations, measured as a percentage of really met expectations. The ISO 10004 standard specifies: "Satisfaction is a judgement, an opinion expressed by the customer. The degree of satisfaction reflects the gap between the customer's vision of the expected product, and the customer's perception of the delivered product". Customer satisfaction information (both positive and negative) can help guide the organization to address issues related to meeting stated customer's requirements. It can also help the organization to understand and address the customer's expectations or issues related to the customer's perception of the delivered product or the organization, and thereby enhance customer satisfaction.

Literature about satisfaction has to be adapted to the context which is to be studied. Definitions of customer satisfaction can be divided into three groups:

- Reaction to services and products, e.g. the difference between the expected product quality, perceived product quality and the importance of its various properties.
- Opinion on compliance with the requirements: customer's perception of the degree to which the customer's requirements have been fulfilled.
- Feelings related to the acquisition of a good by the purchaser: positive or negative feeling of a client connected with the value, which he received as a result of using a particular product offered in a specific situation.
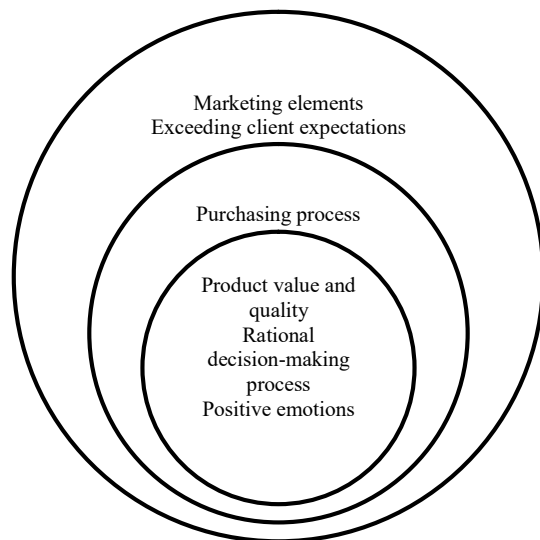

Figure 1 – Core and less important factors of customer satisfaction

Customer satisfaction is determined by the attributes of the product, the purchasing process and the feelings of the buyer. Customer requirements fulfilment and their perception of product quality is a natural base of satisfaction. The impact factors influencing on customer satisfaction can be divided into three groups: the most important of them (core) are: the product quality and value, rational decision-making process and positive emotions (figure 1). If the company brings itself closer to the clients, it easier fulfils their needs and desires in a long period of time. Therefore, a crucial factor of building a long-term success of the company is continuous satisfying client's needs.

The matter of customer satisfaction is very important for every organization. The final evaluation of tenders carries a twofold consequences related to its satisfaction or dissatisfaction. It is due to positive or negative differences between the purchase and the expectations connected with it. This influences further customer behaviour on a market.

A state of satisfaction or dissatisfaction is a subjective feeling and is a result of specific experiences of individual perceptions and emotions. This satisfaction or dissatisfaction reflects a feeling connected with the completed or unfulfilled expectations in relation to a particular product or service. The satisfaction felt by the client, is associated with the experience of his positive impressions, and conversely will be linked to dissatisfaction with the lack of positive incentives.

Companies usually apply various set of methods and measures. The choice of the methods depends on their specificity. Instruments, that are necessary to measure customer satisfaction, can be divided into three groups:

- measures of product value and the value of the nonconformity with the client's expectations with the customer satisfaction,
- measures of satisfaction or its lack,
- measures of customer satisfaction or its lack due to the consequences it may bring.

Among the methods used for measuring customer satisfaction, the most commonly used are: NPS – Net Promoter Score and CSI – Customer Satisfaction Index.

A more direct measure for service quality evaluation is provided by an overall index, called Customer Satisfaction Index (CSI). Customer Satisfaction Index is used in measuring customer satisfaction with services and products. It can be an effective tool for monitoring, reporting and tracking the performance of the organization or its specific aspects, with regard to customer satisfaction. CSI represents a good measure of overall satisfaction because it summarizes the judgments expressed by users about various service attributes in a single score.

This method is relatively simple and requires a survey based on a comprehensive questionnaire. It demands a choice of appropriate criteria which will be evaluated by the respondents. Every respondent scores the importance of chosen criteria and assigns them an appropriate level of satisfaction at scale. Calculating CSI ratio is based on a formula:

$$CSI = \sum_{i=1}^{n} [S_i \cdot W_i] \ ,$$

Where: n — number of the criteria (factors, attributes) included in the analysis,
   i — current criterion (factor, attribute),
   S — mean of the i-criterion satisfaction score, rated by respondents ,
   W — importance weight — weight of the i-criterion, calculated on the basis of the importance rated by respondents.

In addition, the result data can be placed on a positioning map (performance matrix). The positioning map is composed of four areas that suggest which elements should be improved and which one sustained. The matrix also indicates factors most important to respondents.

Many countries use CSI methodology for determining nation-level index of customers satisfaction. The first nation-level customer satisfaction measurement systems was the Swedish Customer Satisfaction Barometer — SCSB and the American Customer Satisfaction Index (ACSI).

So far there is no one universal method of measuring customer satisfaction. Each measurement is exposed to error of estimate, because it is extremely difficult to measure human emotional response. Therefore, it is very important to learn all capabilities and limitations before making a decision concerning the choice of a specific methods.

Methodology of the research

The main task of the research was to examine satisfaction of customers of the City Communication Company, in Bielsko-Biała using simultaneously several methods. Mathods, used in the research were (among others):

- overall satisfaction rating on fixed scale,
- the CSI index,
- IPA analysis (importance-performance).

The research was carried out in two phases:
- the pilot study and the selection criteria for the CSI method,
- the main research, where respondents evaluated their satisfaction.

Pilot study

Authors used a pilot study to determine the main factors of satisfaction of the public transportation service. They indicated more than 70 factors that could influence on customer satisfaction, and after preselection 53 factors were used for further study. Basing on them, Authors created a questionnaire where respondents were asked to score the public transport services in Bielsko-Biala due to specified criteria. Every factor was rated in a five-item scale (very bad, bad, satisfactory, good, very good) — the results are presented in Table 1.

Table 1 – Part of the questionnaire used for rating selected criteria

B — Vehicle How would you rate?	Very bad	Bad	Satis f.	Good	Very good
Clear bus number marking	1	2	3	4	5
Cleanliness in the bus	1	2	3	4	5
etc.					

Source: own.

In addition, respondents were asked to evaluate their overall satisfaction of transport services in five point scale (1 — very small satisfaction, 5 — Very great satisfaction).

The pilot study was made on a sample of 75 public transport users. Some of the completed questionnaires were rejected due to formal and substantive errors. The final sample consisted of 54 persons (N = 54) — 30 women (55.6%) and 24 men (44.4%).

Main research

The main research was made on a sample of 200 public transport users. After collecting the survey questionnaires, inaccurate or incomplete forms were rejected. Finally, the sample consisted of 145 respondents (N = 145). They were frequent users of public transportation, because 30.3% of them declared using this kind of services every day and 33.8% — few times a week. For 37.3% of respondents public transport was the main mode of transportation in the city.

The survey questionnaire consisted of four parts, in which respondents were asked to:
1. score their overall satisfaction level,
2. score importance and performance of satisfaction factors identified in the pilot study (for CSI index and IPA).

Respondents scored importance of each factor (on a scale of 1–5: 1 — not important, 5 — very important), and evaluated its performance (1 – very bad, 5 – very good).

Findings

Determining CSI criteria using results of pilot study

The Authors calculated the Spearman's rank correlation coefficients between the evaluation of each of 53 potential satisfaction factors and the overall satisfaction rating expressed on the five-item scale. In this way, Authors chose 15 factors, which have the greatest correlation with feeling of satisfaction. These factors, and the rank correlation coefficient, are shown in Table 2. Correlations statistically significant ($p < 0.05$) are marked with *.

Table 2 – Correlations (Spearman's rank coefficients) between the evaluation of potential satisfaction factors and the overall satisfaction rating

Factor of satisfaction	Correlation with overall satisfaction rating on:	
	5-item scale (F01)	15-item scale (F02)
Proper bus heating	0.355*	0.249
Sufficient space for passengers (no crowd)	0.226	0.256
Ticket prices adequate to the service offered	0.164	0.256
Differentiation of the ticket offer	0.215	0.262
Sufficient space between the seats	0.286*	0.280*
Travel safety	0.287*	0.282*
Tickets prices	0.290*	0.285*
Proper bus ventilation	0.150	0.291*
Proper spacing of bus-stops along the route	0.289*	0.300*
High level of customer service in the bus	0.241	0.304*
Good driving technique	0.271*	0.307*
Ticket offer suitability to the needs of travellers	0.324*	0.326*
Cleanliness in the bus	0.338*	0.380*
Proper marking of places in the bus.	0.424*	0.383*
Proper ticket control process.	0.315*	0.389*

*Significant correlations ($p < 0.05$) was marked with *.*

Among these factors, the Authors decided to select a final set of criteria. The first choice was a set of factors, which significantly correlated with the overall rating of satisfaction. Authors examined the internal consistency of this set of factors by calculating Cronbach's alpha coefficient. The result alpha = 0.823 implied good internal consistency

of selected criteria. For the CSI calculating, a set of 15 criteria seemed to be too numerous, so the Authors decided to eliminate similar criteria:

- 'differentiation of the ticket offer' and 'ticket offer suitability to the needs of travellers',
- 'proper bus ventilation' and 'proper bus heating',
- 'sufficient space for passengers (no crowd)' and 'sufficient space between the seats'.
- and replace them with other phrase. In this way the final set of 12 criteria for the CSI index was determined.

Overall satisfaction rating

Overall satisfaction in main research was scored on 5-item scale. Distribution of responses is shown in Figure 2.
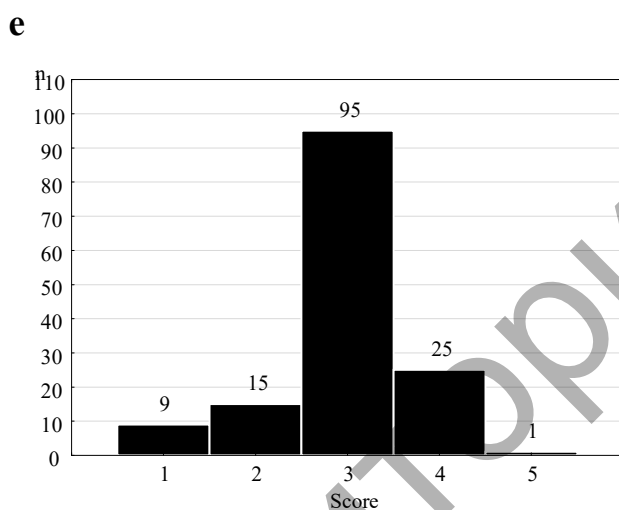

Figure 2 – The distribution of the overall satisfaction scored on 5-item scal

Only one of the respondents described own satisfaction as very high (5). Most of the respondents declared a medium level of satisfaction. The mean of satisfaction rating on the 5-item scale was 2.96 (49.0%), median — 3.00.

Customer Satisfaction Index (CSI)

Before calculating the CSI index, the internal consistency of factors used in the survey were examined by Cronbach's alpha coefficient. The result alpha = 0.773, confirmed that group of factors selected in the pilot study is internally consistent. The CSI index calculation results are presented in Table 3. The CSI index calculated for the entire group of respondents was 3.03 (50.1% on a scale of 1–5), which means the average level of satisfaction.

Table 3 – Satisfaction factors used in survey and results of CSI calculation

Factor's ID	Satisfaction factor	All respondents		
		P	I	W
A01	Cleanliness in the bus	3.17	4.23	8.9%
A02	Proper marking of places in the bus.	3.45	3.14	6.6%
A03	Sufficient space for passengers (no crowd)	2.55	4.34	9.1%
A04	Proper ticket control process.	3.09	2.69	5.7%
A05	Proper bus heating/ventilation	2.50	4.43	9.3%
A06	Proper spacing of bus-stops along the route	3.38	4.17	8.8%
A07	Good driving technique	3.58	3.97	8.4%
A08	Ticket prices adequate for the service offered	2.68	4.4	9.3%
A09	Travel safety	3.57	4.03	8.5%
A10	High level of customer service in the bus	3.12	3.65	7.7%
A11	Ticket offer suitability to the needs of travelers	3.03	4.01	8.4%
A12	Tickets prices	2.46	4.4	9.3%
	CSI (ΣPxW) =			**3.03**

Source: own.

Note:
P — Average performance score
I — Average importance score
W — Relative importance weightings in %

Respondents evaluated the best:
- A07 Good driving technique (average for all respondents 3.58).
- A09 Travel safety (average 3.57).
- A02 Proper marking of places in the bus (average 3.45).

The worst performance scores were given to:
- A03 Sufficient space for passengers/no crowd (average 2.55).
- A05 Proper bus heating/ventilation (average 2.50).
- A12 Ticket prices (average 2.46).

Importance-Performance Analysis

Data gathered in Table 3 was used for creating a scatter graph (Fig. 3). In the graph average scores (performance) are plotted on the x-axis and weighting (importance) on the y-axis. This determines the position of each of the factors in one of the four quadrants of the matrix. The A quadrant includes factors, which are important to the respondents, while their performance rating is low. These are:
- A03 Sufficient space for passengers (no crowd).
- A05 Proper bus heating / ventilation.
- A08 Ticket prices adequate for the service offered.

- A12 Tickets prices.

Improvement of this factors will have influence on increase of the customer satisfaction. It means that the customer's requirements in these areas should be better read and met.
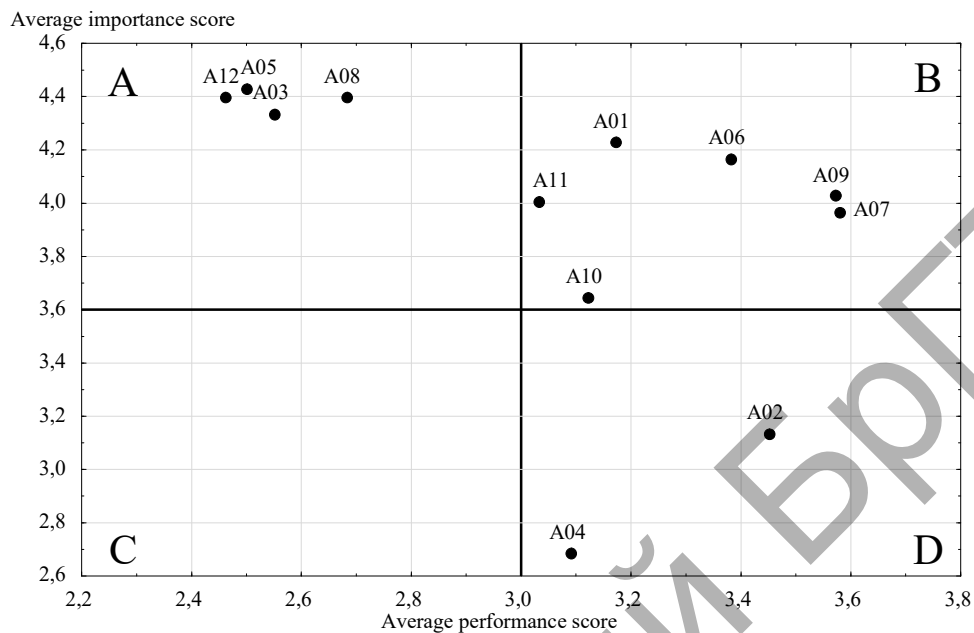

Figure 3 – Matrix of Importance-Performance Analysis (data from Table 3)

Field B in the matrix includes factors important and well-rated by respondents. Maintaining the high performance in this area is necessary for keeping the customer satisfaction level. Factors in the D quadrant (A02 Proper marking of places in the bus and A04 Proper process control ticket) are well-rated but have no special importance for respondents, so they do not demand special attention.

Conclusion and practical implications

In the pilot study and in the main research the authors applied several methods of customer satisfaction survey. The objects of studies were users of public transport services in Bielsko-Biala. There are several practical implications of the research:

1. Regardless of the used method, most of the respondents declared a medium level of satisfaction.

2. Improvement of factors as: sufficient space for passengers (no crowd), proper bus heating / ventilation, ticket prices adequate for the service offered, will have influence on increase of the customer satisfaction

3. Twelve factors of satisfaction, selected in the pilot study, are a considerable proposition for set of attributes useful in surveys on public transport customer satisfaction. They utility should be tested in further studies.

Business executives, quality managers of public transport services can use the results presented in the article to design or improve their client satisfaction surveys, which is especially important in quality management systems.

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