



QUALITY EVALUATION OF BULK CONSIGNMENTS CONVEYANCE BY SERVQUAL METHOD

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Abstract: Competitiveness of providers of bulk consignments brings on the one hand great market depression, but step by step are preferred questions of quality of provided services, as well as the value of additional services included in the price of conveyance. The providers, who do not reflect in the sufficient measure this fact, loss the chance of the next grow and they do not satisfy customer demands. The paper is focused on the application of the Servqual method based on the analysis of expectations and skills of customers which is for the providers a suitable tool for assessment of quality of bulk consignment conveyance.

Key words: quality, provider, method, bulk consignment conveyance

1 INTRODUCTION

The product of feeder service got into spotlight mainly at the time of the last trade - economic crisis, when trade subjects started to prefer less values of consignments with the goal to minimize liability of a capital in supplies on the one hand, and in maximum possible measure to eliminate their logistics costs related with distribution of their products. Slovak republic (SR) realizes full-area feeder service about 27 subjects and there is not classification to the documented and parcel providers (for example DPD, Slovak post, etc.) and others which can within their distribution network to transfer also bulkier and palette consignments. It is expected from the leaders on the market of feeder service a wide offer of additional

operations which minimize cares of customers about consignments in the process of conveyance for market price or cheaper.

2 METHODOLOGY

Serqual is a method of service quality measurement which was developed in the 80th years in the USA and gradually it was developed and expanded. Its basic axiom is so called paradigm of difference among perceptions and expectations of customers and their own skills on the base of specific service utilization [1].

Research by the Servqual method is based on GAP model, it means the model of gaps among parts of process of provided services which are perceived by customer. The authors A. Parasuraman, V.A. Zeithaml and L.L. Berry identified on the basis of qualitative research 5 gaps [2]:

- Gap 1: difference among the fact what is expected by customer and about thinking of the company management. For elimination of this gap it is needed to realize research of customers reliability and register important data, analyze knowledge of employees from customer departments which primarily meet customers and slim the organizational structure of the company at the vertical direction.
- Gap 2: it is by the conflict of service definition which is created by the company and which is expected by customers;
- Gap 3: it is created when the systems of services providing (employees, technologies, and processes) are not correspondent with standards declared by customers;
- Gap 4: it is created when the company by available media advices other level of service as it is provided, the company does not adhere to promises from advertisings;
- Gap 5: it is a result of all previous gaps, sum of sizes of gaps 1-4 is the final difference among the customer requirements and offers of the company [2].

3 ANALYSIS OF PROVIDER OF FEEDER SERVICE

By Servqual method it is determined the difference among expectations and skills of customers. The base is a determination of criteria for analysis, which are divided into 5 groups. The basic step for analysis has 3 steps:

- Calculation of average values for criterion of expectations of customers;
- Calculation of average values for criterion of skills of customers;
- Calculation of average values of the importance of the each group for customer.

For the need of Servqual analysis realization was addressed 80 clients which delivered minimally 10 consignments by the feeder service in 2013. Information was from 71 clients, so by return 88,75% it is possible to work with objective respondent base. For expectations was selected the “ideal” or “model” company, for skills the expression of customers are the reaction on the services of the assessed company. The customer got questionnaire with 22 questions, the answers were selected by the scale from 1 to 7, where 1 is maximal dissatisfied, or maximally disagree and 7 is maximal satisfied, or maximally agree. The scoring tables present average values of expectations of “ideal” company in the column O and average values on the basis of assessment of the “real” company in the column S.

Tab. 1 Evaluation of the substantial assurance of ideal and real company

No.	Criterion	O	S
1.	Employees of the provider are always dressed, in the firm clothing	4,2	3,3
2.	The provider uses modern conveying means	4,5	3,7
3.	Promotional materials of the provider are clear and well readable	4,1	3,5
4.	The provider uses modern and purposeful standard packaging and traffic units, if it is required from customer	4,6	3,1

Tab. 1 Evaluation of the substantial assurance of ideal and real company

Tab. 2 Evaluation of reliability of ideal and real company

No.	Criterion	O	S
5.	Employees of the provider are always willing to solve created problems	5,4	4,1
6.	If the provider does not meet the determined KPI, it comes active solution with remedial measures about he informs the customer	6,0	3,8
7.	The provider take concern in customer opinion, also in the case, that he works with high value of KPI	5,7	4,0
8.	The provider always delivers complete and undamaged consignments	6,1	5,1
9.	The provider meets determined rules in face of customer	3,9	4,2

Tab. 3 Evaluation of responsibility and service velocity of ideal and real company

No.	Criterion	O	S
10.	Employees of the provider are never busy by the way that they are not able to answer to actual new requirements of customers	6,0	4,0
11.	Employees of the provider always present willingness and ability to find suitable solution for the client	5,3	4,0
12.	Employees of the provider always inform customer in advance about terms of consignment delivery	5,5	5,9
13.	Employees of the provider are able to accept the order anytime (service 24/7)	3,8	3,0

Tab. 4 Evaluation of assurance, confidence and satisfaction of ideal and real company

No.	Criterion	O	S
14.	Employees of the provider by their behaviour easy gain confidence of customer	5,4	5,1
15.	Employees of the provider have sufficient experiences for answering on the questions of customers about transporting	3,5	3,7
16.	Employees of the provider finalize each provided services on the base of agreed rules	4,7	4,1
17.	Employees of the provider present fair and politely toward customers	4,9	5,0

Tab. 5 Evaluation of empathy of ideal and real company

No.	Criterion	O	S
18.	The provider approaches to customer individually	3,5	3,8
19.	Employees of the provider represent interests of customer	4,9	4,0
20.	Employees of the provider are able to understand and implement possible specific requirements of customers	5,1	4,8
21.	The provider provides to customer transfer time which answers its requirements	5,6	4,9
22.	Every customer is for the provider equally important and the provider approaches to them equally	4,0	2,9

Tab. 6 Evaluation of the importance of groups of ideal and real company

No.	Group	Total score
1.	Substantial assurance	17,25
2.	Reliability	14,50
3.	Responsibility and service velocity	37,00
4.	Assurance, confidence and satisfaction	16,25
5.	Empathy	15,00

4 RESULTS

On the basis of results of expectations it is evident that in the group of substantial assurance the customers expect above all delivery of undamaged consignments, of which evidence are the highest and almost identical values of criteria – modern equipment and purposeful transfer packaging. These expectations also complete the highest values in the group reliability with the highest value of direct criterion mapping delivery of complete and undamaged consignments. In the group responsibility and velocity of service the customers expect above all quickly answers on the new question, or immediate solutions of the created problems.

This criterion is in general one of the most important by the total evaluation of the quality of provided services. In the group assurance, confidence and satisfaction, the customers expect that employees of the provider will have kind and polite presentation and will develop relationship management. By this way they can obtain confidence of customer. In the group empathy is in the highest expectation the transfer time and time keeping. This is very important attribute, because if the provider declares date of delivery in the feeder service, he must keep them, because customers by this declaration of the delivery time can adapt their supply chain management. Evaluation of facts brings these results in the groups:

1. In the group substantial assurance the highest average value has the criterion of modern transport means application, what is in the case of DHL also the demonstration of social responsibility in the field of CO₂ reduction. The other way round, the lowest value had the criterion of standard and purposeful traffic packaging application;
2. In the group reliability, the customers evaluated with the highest average number the criterion of delivery of complete and undamaged consignment, it helps to create a clear view about the manipulation and transfer of consignments. The lowest average value had the criterion of design of purposeful remedial measures in the case that the provider in the specific time does not meet the determined and with the customers agreed values of KPI;
3. In the group responsibility and service velocity the highest average values had the criterion focused on the foreknowledge of customers about the terms of consignment delivery. This is perceived very positively because by inform of delivery about the exactly determined time, it is possible to save time for other customers and they can by this way realize next planning of delivered goods utilization. The lowest average value had the criterion of the possibility to accept the order in any daily or night time. This criterion can have for customers various explanation because the customer department has fixed working hours with the possibility of face-to-face contact, besides these working hours is possible to accept the order by e-mail, fax or electronic data transfer (for example EDI), but their processing will start on the following working day.

4. In the group assurance, confidence and satisfaction had the highest average value the criterion reflected the ability of employees of the provider obtain confidence of customers very quickly. The lowest average value had the criterion of expertises of employees of the provider and their ability immediately respond and answer on the questions of customers related with realization of delivery.
5. In the last evaluated group “empathy” the highest average value gets the criterion of declared transfer time meeting. In time delivery is the basic attribute of the present transport business. In the last time we can meet with the requirements of customers for delivery on the guarantee “day definie”. The lowest average value got the criterion of evaluation of the same approach to all customers.

If we have to comment the results of division of groups by importance, on the base of information from customers, they get the highest importance to the group of responsibility and service velocity. This group get more than double number of points in comparison with other groups. Other groups are on the part of customers nearly equally important.

For better interpretation of Servqual analysis of average values of criteria in the groups it is possible to create column graphs, where the axis x will present criteria and axis y their average value. The column graphs are created also for expectations and also for skills.

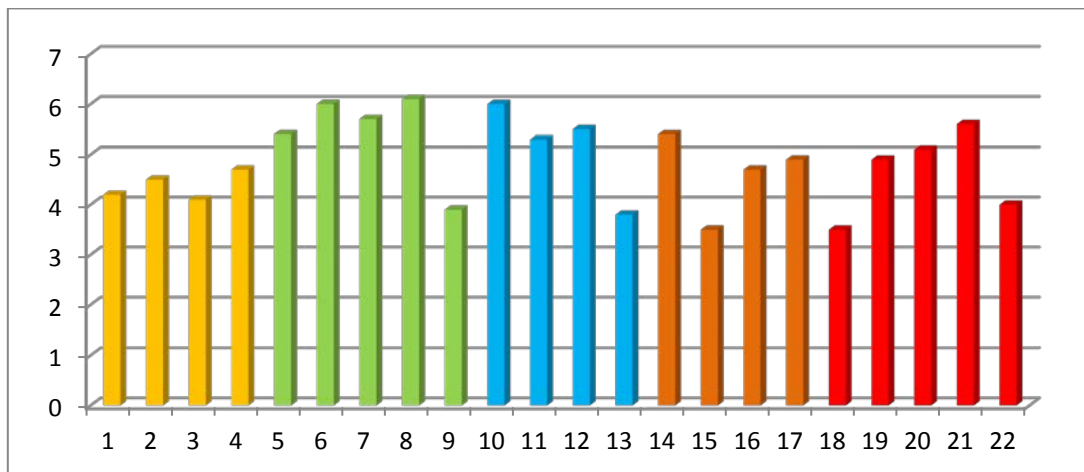


Fig.1 Complete evaluation of criteria of expectation of the “ideal” company

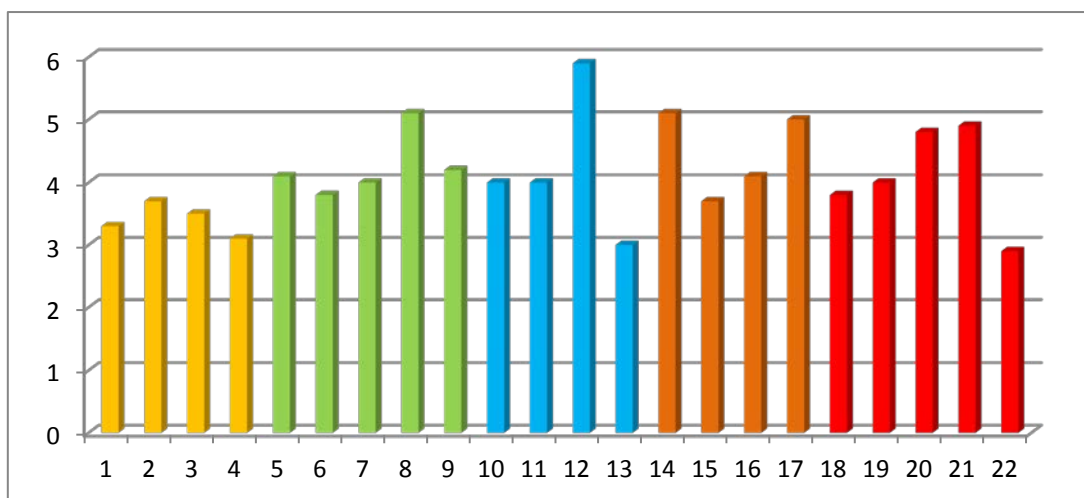


Fig.2 Complete evaluation of criteria of skills of real company

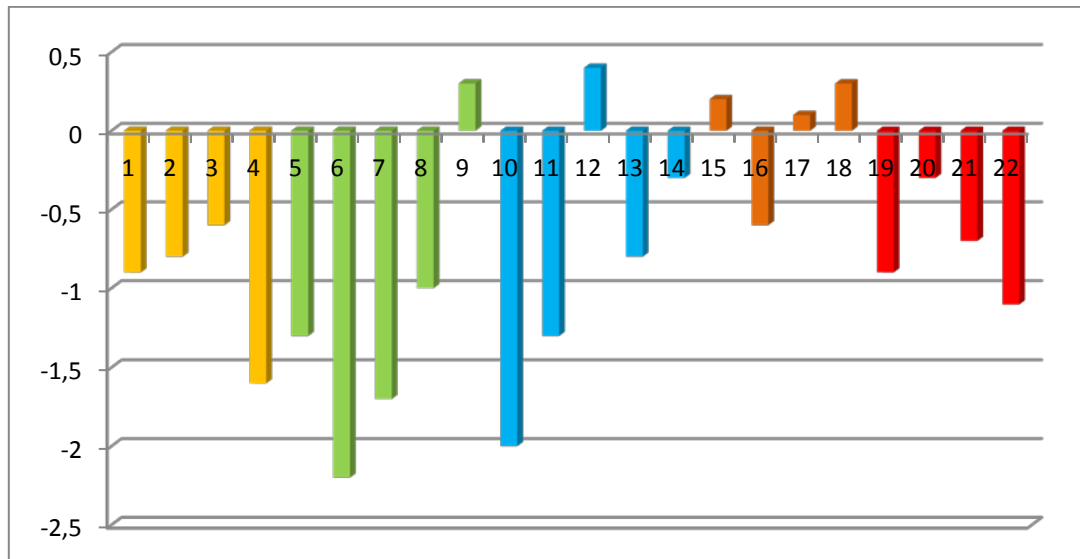


Fig.3 Complete evaluation of differences of values of criteria among expectations of "ideal" company and skills of the real company

By analysis of difference among expectations and skills of customers, it is possible to state, that by five criteria was this difference positive. These positive difference were in the criteria of the group – assurance, confidence, satisfaction (in three from four criteria) and by one criteria in the groups – reliability and responsibility and the service velocity. Summarily, it is possible to state, that the skills obtained by the direct contact with customers brought better assessment than requirements of customers. But on the other hand it is needed to state, that in the case of four criteria were acquired skills far beyond the expectations (in average values the difference was more than 1.5 points). The highest difference was in the criterion of the number 6 what it is the fact of insufficient remedial measures received by the providers, unless the determined values of KPI are not fulfil. The criterion is from the group of reliability and the difference of average values is - 2.2 points.

In the next step of Servqual analysis it is arithmetic average of difference of average values of criteria for each group:

- Substantial assurance: = -0.975
- Reliability: = -1.18
- Responsibility and service velocity = -0.925
- Assurance, confidence and satisfaction = -0.15
- Empathy = -0.54

Consequently the total average of difference of the average values of criteria by Sevqual method will be:

$$S = \frac{-0,975 - 1,18 - 0,925 - 0,15 - 0,54}{5} = -0,754$$

If average values are multiplying with the groups of scales on the base of importance of the group which were determined by customers, it is possible to obtain these values:

- Substantial assurance: = - 0,975 * 17,25 = - 16,819

- Reliability:= - 1,18 * 14,50= - 17,110
- Responsibility and service velocity= - 0,925 * 37,00= - 34,225
- Assurance, confidence and satisfaction= - 0,15 * 16,25= - 2,438
- Empathy= - 0,54 * 15,00= - 8,100

Consequently, the weighted average of all groups determining the total quality of provided services by Servqual methods will be:

$$S = \frac{-16,819 - 17,11 - 34,225 - 2,438 - 8,1}{100} = -0,787$$

It is possible to state, that difference values of average values of criteria are for all groups negative, this means, that the assessed provider in all groups fall behind the expectations of its customers. The smallest difference was in the group empathy, this means, that by the criteria of this group, the provider approaches mostly to the expectations of customers. On the contrary, the greatest difference is in the group reliability, where the DHL again is behind the expectations of customers. This fact must be key on the part of future direction of the product DHL Euroconnect and it is needed to pay attention to criteria of this group extremely and within the frame of internal decisions to accept effective remedial measures.

The total quality of the provided services were assessed by Servqual method on the base of average values of difference among expectations and reality, it was evaluated by the total score -0,754. This means that the total performance does not achieve expectations and it is relatively far from the total needs satisfaction and demands of customers. Also the value of weighted average of groups is negative -0,787, it brings a great space for solid internal analysis. If it is regarded the value of averages which were multiplied by scales, so the nearest to the expectations of customers was the group assurance, confidence and satisfaction and the worst group was the group of reliability and service velocity.

5 CONCLUSIONS

On the base of the realized analysis it is possible to state that customers have the highest expectations in the group of reliability. For them it is important that their consignments will be delivered always completely and at the stated time. They feel need the support from provider by solution of created problems and they expect proactive approach by design and implementation of new procedures. Also they expect complying and performance of the agreed rules and reciprocally agreed conditions. By contrast of their expectations is the fact where the greatest difference in expectations was in solution of persistent problems with achieving of the agreed KIP. By assessed provider to the basic KPI belongs in time collect consignment, in time delivered consignment and number of complaints in regard to the number of realized conveyances. There is a space for improvement, even though the international consignments are not under the direct control of the providers because they go by other consolidated points outside the borders of the Slovak Republic. It is needed to regard that only 5 criteria (23,8%) had positive difference among expectations and real skills. In the other cases it is a negative difference of average values for criteria by expression of the level of dissatisfaction with provided services. This, in the most of the criteria the provider is not able to fulfil expectations of the customers, but even though customers utilize services of the provider. This state may be only temporal, because it is needed an urgent implementation of

corrective measures which at short time prove to turn over the ration of negative and positive differences at the side of positive. Particularly great emphasis should be placed on the field with the greatest negative difference, so by implementation of larger number of comfort and expedient conveyance packages, implementation of effective remedial measures for improvement of achieved KPI, take concern in the needs of customers also in these cases when it is evaluated the cooperation at the excellent level and the certainty is creation of feelings for customers that the providers have time to solve their requirements. Unless the provider wants to be successful in the long term, he must be adapted in a large measure to customer requirements. The provider may not allow disappoint the customer in any field of provided services. There is no a large number of forwarders in the Slovak market which can provide complex portfolio of services with world wide geographic availability. However, recently there are regional player on the Slovak market, which by their aggressive market politics can convince the part of clients for which the regional focus is suitable. For customer is not the only one determining criterion the price (although it has still the highest importance), but also the quality of provided services and with this fact connected communication environment. Therefore, for the success of the provider is necessary the total performance and quality of provided services.

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