

**SATISFACTION WITH TRAVEL SCALE (STS)
BEFORE AND AFTER IMPLEMENTING
NEW IMPROVEMENT
(STUDY CASE: KARLSTADSBUSS SWEDEN)**

I Made Sukmayasa
Student of GadjahMada
University- Karlstad University
MSTT- Master of Science in
Business Administration, Service
Management
Phone : +62 818 077 257 720
imade.sukmayasa@yahoo.com

Muh. Zuhdy Irawan
Civil and Environmental
Engineering Department
Gadjah Mada University
Jl. Grafika 2, UGM, Yogyakarta
55281
Telp : 085641025880
imuthohar@mstt.ugm.ac.id

Margareta Friman
Samot/CTF, Karlstad University,
SE-651 88 Karlstad, Sweden. Tel.:
+46 (0) 54 700 11 68;
Margareta.Friman@kau.se

Abstract

Multiple regression analysis are used to examine the dimensions of satisfaction with travel scale (STS). Such method is used to understand the behavior changing before and after implementing of quality improvement since the karstadsbuss presented the new comfortable bus. The random sample data based on subjective response were collected before and after implementation of new quality attributes in Karlstad city (n = 459). The data before and after contains of different group of respondents. The process is statistically, the high loadings factors are expected to explain of dimensions of STS (i.e. positive activation, positive deactivation, and cognitive evaluation). The result yielded that the average of items were significantly increase in almost all items. The result also revealed that accessibility and mobility factor was the greatest effect for positive activation and cognitive evaluation and in the meanwhile, information on board affect positive deactivation.

Keyword : *customer satisfaction, travel behavior satisfaction with travel scale (STS),*

INTRODUCTION

Improving the quality of service attributes will increase customer satisfaction such as reliability and service planning (Eboli&Mazzulla, 2007), safety and security (Felleson and Friman, 2008), service frequency and getting a seat (Hensher et al., 2003). However, improve service quality is not automatically lead customer satisfaction (Friman, 2004; Friman&Felleson, 2009) nor automatically moving private vehicles to the public transport as mode choice (Fujii& Kitamura, 2003). In order to the quality improvements meets customer expectations, the service should offer the quality required by regular and potential users (Beirão& Cabral, 2007).

Supporting sustainable society and make a better public transportation, in 2013, Karlstad city, which is among 25 largest cities in Sweden presented new buss. They changed their city buss due to increasing demand of public transport through people live without private vehicles. Not only new busses but they also make several improvements of the quality including free internet (Wi-Fi), buss-screen TV, surveillance camera, and the new larger-space design of buss

The purpose of this paper is to analyze the relationship between satisfaction about overall service and service quality attributes in Karlstadsbuss before and after the implementing of quality improvement. The data collection method used is a repeated cross-sectional survey including questions of satisfaction with travel (STS) and satisfaction with different quality attributes. Such assessment is important to get a better understanding about the changing of travel behavior and performance of the attributes required by passenger

THEORETICAL FRAMEWORK

Customer satisfaction

Customer satisfaction is a specific form of domain-specific subjective well-being (SWB) as the users of public transport were asked with the specific domain of the day. D. Ettema et al. 2010; D. Ettema et al. 2012 noted that SWB is defined as the degree to which an individual positively evaluates the overall quality of their lives. SWB or commonly called happiness are developed by affective component, referred to the emotional experiences of episodes during specified time intervals, and a cognitive component means a judgment of life satisfaction.

In the other word, satisfaction is ‘the consumer’s fulfillment response. It is a judgment that a product/service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under-or over-fulfillment’ (Oliver 1997 p. 8). However, the dissemination about consensus definition of customer satisfaction has evoked debate about understanding of customer satisfaction in an apparent condition. Researchers have found several considerations; whether customer satisfaction is an evaluation process or subjective responses, whether customer satisfaction is cognitive of affective responses, and the last is the conceptualization of customer dissatisfaction (Peluso 2011 p. 15). Furthermore, Giese and Cote (2000 p. 17) deliberated and established the component of customer satisfaction as a review affective response of varying intensity with a time-specific point of determination and limited duration and directed toward focal aspects of product acquisition and/or consumption

Service Quality and Customer Satisfaction in Public Transport

The assessment of public transport through satisfaction and quality attributes has been proposed to define Public Transport Quality. These attributes may vary and resulting different objectives because the different characteristics and behavior in each field.

Reliability in public transport is necessary as inconsistently time in commuting activities can reduce the satisfaction level. Cantwell et al., (2009) have demonstrated the quality attributes in bus and rail that affect transport commuters satisfaction in Dublin city Centre. Using subjective data they found that respondents have high stress levels when using unpredictable public transport, the longer waiting time, the higher stressed they feel. Hence, they stated that the passenger would gain a high value from improvement reliability such as punctual waiting time and travel time.

Wall and McDonald., (2007) have conducted study regarding the development of quality attributes involving increasing the frequency, travel information, and the introduction of new buss in Winchester. They claimed that the frequency of service changes is normally in response to change in passenger demand (p. 168). The result notes that the improvement of quality attributes can increase bus patronage. Surprisingly, the introduction of new comfortable buses with excellent access to disable and elderly in some routes does not certainly attract new customer but can only increase users’ satisfaction level. The travel information at bus stop and pocket travel map has low influence to attract new users than service frequency but still increase the satisfaction level.

Accessibility and mobility of public transport is one of the most important factors that determine the quality of public transport. A quantitative study by Woldeamanuel and Cyganski (2011, p.15) found that the public transportation accessibility could change the

mode shifting and increase the satisfaction in Germany. They also found that the more frequent users use public transport, the more increase satisfaction they give and it is showed by the high number of trip related to the positive perception. For instance, good public transport accessibility to the public hub supports the daily activities such as shopping activities.

Speed and safety attributes are also influencing customers' satisfaction with the perceived quality. Pucher et al. (2005) noted that the speed is the significant factor that enhances customer satisfaction in public transport. They collect the subjective data from the passenger before and after reforms of public transport in Seoul, in 2004. They found that after the reforms of the public transport the satisfaction of the customer increased and, therefore, automatically increasing the number of passenger. Moreover, the separated lanes between public transport and private vehicles generate almost 90 % satisfaction level, this is because the increasing of speed and integrated routes reach safety condition of the passenger.

METHODOLOGY

The number of population in Karlstad in 2012 was 86.929 citizens (Karlstad Kommun), average of the population in 32 zones in Karlstad were 2.717 citizens ($SD = 1678, 4$)¹. The total population is applied to decide the sample of the study because of inadequate data about how many people use public transport compared to active people. Although the population has several drawbacks like not every single person in population doing trip every day, age factors and not everyone use public transport, but the population is used appropriately for further analyze. With confident level 95% (margin error 7% and precision level given 0.5), the number of minimum sample is 196 respondents. However, to ascertain analyzing the data suitably, the sample rounded up maximum to 250 respondents in each test (pre-test and post-test).

Respondents

First session was carried on June 2013 before the bus has not been yet renewed. There were 3 (three) officials conducted the survey, the survey was held in several times in the day and in different days in a week due to finding a design and data suitably in worked days and off days because satisfaction is influenced by events experienced when using a travel mode (Friman and Gärling, 2001). Furthermore, it was assumed that the unique circumstances differently in certain conditions for instance the crowdedness in the peak hours, weather conditions, time services in the working days and weekend. As much as 250 questionnaires distributed in the city centre (StoraTorget), which is the transport hub of modes interchange and can be perceived as Central Business District (CBD) in Karlstad. The survey had been held when the passenger was waiting and transfer buss at city centreated Paper and Pena participant filled the question approximately 5-10 minutes. Of these, 249 people were filled the questionnaire and only one respondent who did not return the data (Blank data). Afterward, the second session was held on September 2013 after the implementation of quality improvement as much as 250 questionnaires was spread out in the same place with a similar pattern. Of these, all of the questionnaires or 250 data was fully returned.

Questionnaire

The data set consists of 10 questions, which is separated into three parts concerned with public transport services. The first part assesses about perceived performance of quality attribute from the passenger perspectives. For each question, respondents checked a seventh-point Likert- scale is ranging from “Strongly Disagree (1)” to “Strongly agree (7)”. The question is about the general quality attributes of public transportation that respondents not were only asked about the improvement in Karlstadbuss but overall services in Karlstadbuss. The question items base on the quality attributes enhanced by Karlstadbuss such as the written information provided on board, announcements of stops, number of seats / space, sound level on board, lighting on board, and the room temperature on board. Additionally, the other topics are adjusted from preceding literatures over the world as the resemblance with this circumstance such as reliability, speed, frequency, accessibility, information provision, price, easiness to transfer (interchanges), comfort, safety and convenience (Zeithaml et al. 1990; Redman et al., 2013).

The second part shed light on the satisfaction with travel scale (STS), which is adapted from Friman et al., (2013) aimed to explore experienced decision of passenger that covering 3 questions. Hence, each question is characteristic of positive activation (PA), positive deactivation (PD), and cognitive evaluation (CE) and respondents checked a seventh-point Likert- scale is ranging from (-3) to (3). The last part asked on demographic factor that interpreting about sex, and behavior responses of passengers such as purpose of the trip, activity on board, and how often they use of public transport.

RESULTS AND DISCUSSIONS

Pre-study

The result of average analyses in pre-study showing mean values was different in each 25 items (see table 1). There are two higher perceived qualities in pre- study, i.e. distance traveled to the nearest bus stop and safety. This result was supported by the real conditions of distance traveled to the nearest bus stop, which was quite short because the route of Karlstadbuss covers almost entire area. Moreover, safety was a major concern of Karlstadbuss since they focused to reduce the number of injuries and fatalities in traffic (Karlstadbuss 2013). On the other hand, the lowest mean value in pre-study was temperature on board. This fact appears due to the bus operator could not control the temperature on board since the Karlstad has different weather especially in winter season that the bus need to be warmer.

The factor analysis in pre-study produced 6 latent factors i.e. accessibility and mobility, comfort, cost and efficiency, announcement and responsibility, Information and Communication Technologies (ICT's), and safety. Bartlett's Test of Sphericity with Chi-Square 2208.338 (df 231) and sig = .001 < 0.05. It indicated that the correlation matrix was not an identity matrix so that principal component analysis can be performed. In addition, the result of KMO value was equal to 0.895 and p-value was = .001 (< 0.05), these values fall within the category of more than decent for the benefit of factor analyses (according to Field, 2009) and, therefore, the variables can be further analyzed. Furthermore, the accessibility and mobility was given the high variance, which was explained by 33.95 %. The result might occur as evidence that Karlstadbuss provided an easier route, more reliable, and frequent departures.

Table 1. Average (Md) pre-study and post-study of perceived quality

No	Items	Mean (Md)		No	Items	Mean (Md)	
		Pre	Post			Pre	Post
1	Information On Board	4.38	5.54	14	Distance traveled	5.52	5.66
2	Announcement Stop	5.07	5.73	15	Price	3.85	4.35
3	Seat & Space	4.42	5.68	16	Payment process	4.35	5.15
4	Noise on board	4.53	5.43	17	Coordination of bus	4.09	5.08
5	Lighting on board	5.22	5.94	18	Information at Bus stop	4.83	5.53
6	Temperature on board	3.39	5.63	19	Information on Website	4.69	5.51
7	Cleanliness on board	3.99	5.94	20	Mobil Application	4.50	5.60
8	Board & Exit	4.87	5.74	21	Safe	5.43	6.09
9	Frequency	4.86	5.42	22	Convenience	5.22	5.79
10	Travel time	4.91	5.66	23	Continue	4.64	5.20
11	Comfort	4.60	5.84	24	All Activities	4.40	5.09
12	Driver attitude	4.51	5.43	25	Accessibility	4.52	5.25
13	Punctuality	4.12	4.80	26	Satisfaction Network		5.25

*pre = pre-study: before implementation *post= post study: after implementation

In Table 2 showed that comfort has a positive impact on all STS dimensions as passengers feeling more comfortable during the trip. Given the loading factor of comfort (Seat, noise, lighting, temperature, cleanliness, comfort), this may imply that they feel more confident (e.g. due to low noise level) and even more alert (e.g. due to comfortable and the atmosphere on board). Furthermore, information website and phone application were not linked to positive activation and positive de-activation, it was, however, provided a positive impact on cognitive. It is relevant because cognitive process assesses ICT's by knowledge and skill. Meanwhile, positive impact on cognitive evaluation may imply that ICT's gave positive experience due to the system of ICT was easy to understood thus making the trip more quickly.

Table 2. Result of Regression analysis of STS model in Pre study

	Positive Activation		Positive Deactivation		Cognitive Evaluation		Cronbach's A
	Coeff.	Sign.	Coeff.	Sign.	Coeff.	Sign.	
(constant)	1.229	.000*	.473	.000*	1.014	.000*	0.879
Accessibility & mobility	.296	.000*	.200	.012*	.298	.000*	
Comfort	.384	.000*	.403	.000*	.465	.000*	
Cost & efficiency	.325	.000*	.216	.007*	.254	.000*	
Announcement & Responsibility	.223	.004*	.383	.000*	.191	.007*	
ICT's	.012	.878	.046	.560	.189	.008*	
Safety	.033	.656	.187	.018*	.167	.017*	
Model summary							
R Square	.229		.224		.295		

	Positive Activation	Positive Deactivation	Cognitive Evaluation	Cronbach's
Adjusted R Square	.208	.203	.277	
ANOVA ^b				
F	11.314	.000 ^a	10.997	.000 ^a

Note: ^a*p* < .05.

Post-study

There was a variation in mean values in post-study consisted of 26 items (see table 1). The higher perceived value was safety, which can be defined as passengers feel safer traveling by public transport than private vehicles. This evidence was in line with the Vision of Karlstadbus, i.e. "easy to live without a car". Previously, crowded bus was causing traffic jam, thus, in order to actualize such vision they tried to make a Karlstadbus safer and quieter traffic (Karlstadbus, 2013). Further, price was found to be the lowest mean values although the rate was still noted in satisfy level (mean 4.35 on a 1 to 7 scale). Such item should be focused because price has a significant impact related to retain passenger and mode choice. A reasonable explanation is that the offering price is not fully fulfilling associated to high service quality perceptions when trip by Karlstadbus. It was likely that the respondents in certain circumstances comparing service quality and reasonable price offered by Karlstadbus with private vehicles.

The factor analysis generated seven latent factors i.e. accessibility and mobility, comfort, reliability, information on board, information communication technologies (ICT's), responsibility, and the interior on board. The Kaiser-Meyer-Olkin measurement was giving the sampling adequacy for the analyses, KMO = .864 ("great" according to Field, 2009). Indeed, all KMO for each item more than > 0.67, which was above > .50 (Field, 2009), such value indicated that the data was well to the further analysis. The model result was correlated, and it can be seen on Bartlett's Test of Sphericity test with Chi-Square 1399.117 (df 300), *p* < 0.05. It showed that the correlation among variables was sufficiently good for principal component analysis. Similar with pre-study result, the accessibility and mobility gave the high variance explained by 36.11 %. Its result was the indication that the Karlstadbus have a great mobility and accessibility by providing an easier route and more frequent departures that make perceived value higher than the other factors.

Table 3. Result of Regression analysis of STS model in Post study

	Positive Activation		Positive Deactivation		Cognitive Component		Cronbach
	Coeff.	Sign.	Coeff.	Sign.	Coeff.	Sign.	
(Constant)	2.013	.000*	1.123	.000*	2.011	.000*	
Accessibility & Mobility	.449	.000*	.251	.016*	.294	.000*	0.851
Comfort	.137	.119	.337	.002*	.173	.033*	0.724
Reliability	.124	.140	.313	.003*	.236	.002*	0.73
Information on board	.141	.133	.451	.000*	.155	.071	0.581
ICT's	.221	.011*	.279	.009*	.177	.025*	0.797
Cost & Responsibility	.197	.025*	.283	.010*	.022	.787	0.729
Interior On Board	.108	.239	.088	.444	.142	.092	0.678
Model summary							

	Positive Activation		Positive Deactivation		Cognitive Component	Cronbach
R Square	.338		.379		.306	
Adjusted R Square	.293		.335		.256	
ANOVA ^b						
F	7.383	.000 ^a	8.702	.000 ^a	6.163	.000 ^a

* $p < .05$

The regression analysis in post-study obtains various models influencing STS dimensions (see table 3). In addition, it was noticed that accessibility and mobility leads to substantial affect in positive activation and cognitive evaluation. The effect was also giving positive for positive deactivation, yet, it was only a small number. Apparently, accessibility and mobility reached people felt confident and alert. This case could be related to the perceptions of the traveler about the trip will run properly because the bus well-manage the trip with high safety and security.

Information on board was giving significant value to positive deactivation. However, the effect was not correlated to positive activation and cognitive evaluation. A viable statement that the information on board drives respondents felt enthusiastic engaged and alert because it may relate to the comfort feeling on-board. It enables the passenger to enjoy more entertainment activity (bus TV or scenery), without spend a high effort to reach the information about destination; as Karlstadsbuss always informs of the bus position before the bus stop with running text information on board and provide time schedule in every bus stops. Moreover, passenger felt engaged since they were involved in the services, where they have to press the stop button if they want to stop in certain empty bus stop. Such activity occurs because the bus will not stop at empty bus stop unless the passenger on board presses the stop button.

Discussion

The results showed that the respondent was satisfied with the quality improvements. From the quality ratings, an increase was detected in the mean values for nearly all items included in the study. The results are not surprising. Even though the quality improvements were not “a total re-makeover”, it is common to witness a spill-over effect were users perceive improvements in other areas that are not subjected to a change (Gray, 1992). This is, however, not always followed by an increase in the number of new passenger (Wall and McDonald, 2007; Pucher et al., 2005). It can be concluded that the respondents perceived a positive response related to the implementing quality improvements.

There are two items considered as small discrepancies between pre- and post-study since there were no actual improvements in such attributes. Those items are distance traveled to the nearest bus stop with mean values 5.52 in pre study and 5.66 in post- study, and price paid mean values for the trip are 3.85 in pre study and 4.35 in post- study. Distance traveled showed a value more than 5, thus, it can be considered giving more satisfied than price paid. Small discrepancy mean values in the distance traveled to the nearest bus stop can be assumed that there was no changing in this item since the discrepancy of mean values was not significant. Apparently, in the real conditions, after the improvement, there was no developing infrastructure to make the distance traveled shorter (e.g. the number of the bus stop was not increased).

Two possible explanations are given for the detection of a small difference in satisfaction with the price paid. First, it was acknowledged in media and in advertisement that there was no increase or decrease in the price paid before and after implementing new comfortable buses. This knowledge among the users is likely to explain the results. Second, a small change in satisfaction toward a small increase in satisfaction with the price paid could be explained by the willingness to pay a fair price for service. In the post-study, the respondents perceived the service offered by Karlstadsbuss as better than before implementing the new comfortable bus. This explanation relies on the budget and preference theory (Grassi, 2008), and is supported by studies in England (Public management foundation 1996, in Van de Walle and Bouckaert, 2003). The theory posits that more than 50% are willing to pay more tax for better public services.

Satisfaction Changes

Summarized the satisfaction with travel scale (STS) related to the quality factor, the pre-study revealed a steady construct of factor affected satisfaction, i.e. comfort that lead STS dimensions. However, the post-study has variety model, where accessibility and mobility were found lead positive deactivation and cognitive evaluation. Thus, information on board was leading in positive deactivation. It is reasonable as the offered service by Karlstadsbuss continuously and extensively improves which make the perception among the users too vary. Nevertheless, the improvement of new bus with numerous quality improvements has enhanced customer satisfaction with travel scale. It would occur because the satisfaction appeared due to the consumer's fulfillment response (Oliver 1997 p. 8) means that an individual could resolve their problem and life usually with Karlstadsbuss services.

Conclusion

The increasing of new and more comfortable bus has increased the rating of quality attributes, which can be seen by the average and the amount of perceived quality by respondents. Both of distance traveled and price have smallest discrepancy because it is concluded that there wasn't changing improvement such attributes in before and after implementing of new comfortable bus. Furthermore, the perceived quality showed that there were several improvement of perceived quality where the total explained variance of post study. This finding can be concluded that, even though the quality improvements were not "a total "re-makeover" it is common to witness a spill-over effect were users perceive improvements in other areas that are not subjected to a change.

The result of analysis regression showed that the steady construct of STS dimensions in pre-study as the comfort becomes the greatest effect. Hence, there is a changing perceived to the STS dimensions after implementing new improvement. The greatest effect was accessibility and mobility for positive activation and cognitive evaluation and in the meanwhile, information on board affect positive deactivation. It can be summarized that the satisfaction changes because the improvement correspond the accessibility and mobility need of users as the service offered at the reasonable level.

REFERENCES

- ¹ "Befolkningssiffror 2012-12-31". Domino11.karlstad.se. accessed 2013-04-17.
- Beirão, G. G., & Sarsfield Cabral, J. A. (2007). Understanding attitudes towards public transport and private car: A qualitative study. *Transport Policy*, 14(6), 478-489. doi:10.1016/j.tranpol.2007.04.009.²
- Cantwell, M., Caulfield, B., O'Mahony, M., (2009). Examining the factors that impact public transport commuting satisfaction. *Journal of Public Transportation* 12 (2), 1–21.
- Eboli, L., & Mazzulla, G. (2007). Service Quality Attributes Affecting Customers Satisfaction for Bus Transit. *Journal Of Public Transportation*, 10(3), 21.
- Ettema, D., Friman, M., Gärling, T., Olsson, L. E., & Fujii, S. (2012). How in-vehicle activities affect work commuters' satisfaction with public transport. *Journal of Transport Geography*, 24, 215-222.
- Ettema, D., Gärling, T., Olsson, L.E., Friman, M., (2010). Out-of-home activities, daily travel, and subjective well-being. *Transportation Research A* 44, 723–732.
- Felleson et al (2009). Common Interest Group: The relationship between objective quality and customer satisfaction ; Final Report, February 2009. <http://best2005.net/>.
- Felleson, M., and M. Friman. 2008. Perceived satisfaction with public transport services in nine European cities. *The Journal of Transportation Research Forum*. 47:93-103, *Transit Issue Special*.
- Field, A. (2009). Discovering statistics using SPSS : (and sex and drugs and rock 'n' roll) / Andy Field. Los Angeles ; London : SAGE, cop. 2009.**
- Friman, M., & Felleson, M. (2009). Service Supply and Customer Satisfaction in Public Transportation: The Quality Paradox. *Journal Of Public Transportation*, 12(4), 57.
- Friman, M., & Gärling, T. (2001). Frequency of negative critical incidents and satisfaction with public transport services. II. *Journal Of Retailing And Consumer Services*, 8(2), 105-114. doi:10.1016/S0969-6989(00)00004-7
- Fujii, S., & Kitamura, R. (2003). What does a one-month free bus ticket do to habitual drivers? An experimental analysis of habit and attitude change. *Transportation*, 30(1), 81-95. doi:10.1023/A:1021234607980.
- Giese, J.L. and Cote, J.A. (2000), "Defining Consumer Satisfaction." *Academy of Marketing science review*, 1(available at <http://www.amsreview.org/articles/giese01.2000.pdf> visited on march 11th 2014).
- Grassi, S. (2008). Public and Private Provision under Asymmetric Information: Ability to Pay and Willingness to Pay. San Domenico, Italy, European University Institute.
- Gray, G. E. (1992). Perceptions of public transportation. *Public Transportation*, 2nd Edition. Englewood Cliffs: Prentice Hall.
- Hensher, D. A., P. Stopher, and P. Bullock. (2003). Service quality—developing a service quality index in the provision of commercial bus contracts. *Transportation Research Part A* 37: 499-517.
- Oliver, R. L. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal Of Marketing Research (JMR)*, 17(4), 460-469.
- Peluso, A. M. (2011). Consumer satisfaction [electronic resource] : advancements in theory, modeling, and empirical findings / Alessandro M. Peluso. Bern, Switzerland ; New York : Peter Lang, c2011.

- Pucher, J., Kim, M., Song, J. (2005). Public transport reforms in Seoul: innovations motivated by funding crisis. *Journal of Public Transportation* 8 (5), 41–62.
- Redman, L., Hartig, T., Friman, M., & Gärling, T. (2013). Quality attributes of public transport that attract car users: A research review. *Transport Policy*, 25119-127. doi:10.1016/j.tranpol.2012.11.005
- Wall, G., McDonald, M. (2007). Improving bus service quality and information in Winchester. *Transport Policy* 14 (2), 165–179.
- Woldeamanuel, M. G., & Cyganski, R. (2011). Factors affecting travellers' satisfaction with accessibility to public transportation. In *European Transport Conference 2011*.
- Zeithaml, V. A., Parasuraman, A. A., & Berry, L. L. (1990). Delivering quality service : balancing customer perceptions and expectations / Valarie A. Zeithaml, A. Parasuraman, Leonard L. Berry. New York : Free Press, cop. 1990.