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## **SERVICE QUALITY DIMENSIONS AS PREDICTORS OF PERCEIVED SERVICE QUALITY IN RETAIL ENVIRONMENT**

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### ***Abstract***

*The purpose of this paper is to determine service quality dimensions as predictors of perceived service quality in retail environment. Recent studies emphasised the multidimensional nature of service quality and multidimensional service quality measurement models. Literature reveals that SERVQUAL (Parasuraman et al. 1988) and RSQS (Dabholkar et al. 1996) are the most common instruments used to measure service quality in retail. Considering different market environments neither SERVQUAL nor RSQS should be solely applied to different service environments and in different cultures assuming that customers behave in the same way. Research should focus on discovering service quality dimensions that are adapted to specific environments and to adapt service quality dimensions to different cultures. Therefore, by using exploratory factor analysis service quality dimensions are determined in the Federation of Bosnia and Herzegovina (hypermarket stores' market). Those are: merchandising, physical environment and interaction with employees. Understanding service quality dimension as predictors of total service quality and their successful management is precondition for successful planning and implementation of service marketing activities in hypermarkets.*

**Keywords:** *dimensions of service quality, retail, hypermarkets*

## **1. INTRODUCTION**

Companies who differentiate in providing high service quality are those that are acquiring loyal customers. Consequently, there is an increase in expressing interest in service quality research in both academic and business environment. Retail is service activity. Namely, basic economic function of a retailer is to ensure customers with few basic and important services along with products. Those services are: accessibility of location, suitability of working hours, range of products, information about products, and suitability of quantities (Newman and Cullen 2002). The above-mentioned services are a part of basic retailer's functions that act as ties in supply chain between a producer and a customer. Each retailer provides services as a part of the offer, and the customers use them every time while purchasing. Different retailers offer different levels of services. The retailers also enrich their offer with additional services such as advising and aiding in purchase decision, deliveries of products to respond to customers' requests and competitive pressures. Retail services (or retailers' services) present a set of services that a retailer offers to the customers in addition to offered products (Newman and Cullen 2002).

Considering the diversity of services provided by the retailers and service quality as a multidimensional construct the purpose of the paper and research is aimed at determining the dimensions of the service quality in the Federation of Bosnia and Herzegovina (hypermarket stores' market) and their influence on perceived service quality. Also, the analysis of differences in dimensions' average grades with regards to sociodemographic characteristics of examinees (gender, age, education and income level) will be presented.

## **2. RETAIL SERVICE QUALITY**

Retail services as an offer of combination of tangibility (physical products) and intangibility have similarities, but they also differ from the services in which core intangible offer dominates. Service quality models that are exclusively developed for pure service environment (SERVQUAL and SERVPERF) did not prove as corresponding ones in those industries that are different from pure service environments (Meng et al. 2009). Dabholkar et al. (1996) – combined findings of qualitative researches (phenomenological interviews, in-depth interviews, following behaviour and experiences of customers at selling place), SERVQUAL and findings from existing literature – have developed Retail Service Quality Scale as an instrument to measure service quality in retail. The instrument consists of 28 indicators – 17 overtaken from SERVQUAL, and 11 developed based on qualitative researches and literature review – that measure five dimensions of service quality at a scale of five levels of intensity. Those are as follows: physical environment, reliability, personal interaction, problem solving and policy. The authors emphasise that the customers evaluate certain service quality dimensions, but they also evaluate whole service that can be positioned as a superior factor to the factors that present dimensions, and which incorporates meaning that is common for all dimensions. Insight into literature reveals that SERVQUAL (Parasuraman et al. 1988) and RSQS (Dabholkar et al.) are the most common

used instruments to measure service quality in retail (Guar and Agrawal 2006). The authors give a review of empirical researches in which SERVQUAL was used to measure service quality (Carman 1990; Fin and Lamb 1991; Guiry Hutchinson and Weitz, 1992; Gagliano and Hathcote 1994; Vazquez, Rodriguez and Ruiz 1995) and those in which RSQS was used to measure service quality (Boshoff and Terblanche 1997; Mehta, Lalwani and Han, 2000; Siu and Cheung 2001; Kim and Jin 2002; Siu and Chow 2003; Kaul 2005). While doing so they concluded that neither SERVQUAL nor RSQS present reliable and valid (universally accepted) measure of service quality in retail. Namely, when service quality is researched it is necessary to adjust the application of the afore-mentioned instruments by taking into consideration contextual variations or to develop alternative instruments. Adjustments can relate to type of service activity as well as to specificities of country's environment in which the research is conducted. Speaking of retail, it would be advisable to adjust instruments taking in consideration the type of a retail shop as well. Namely, different retail formats offer different set of services to their customers. Modified instruments can further be tested in different retail formats using cross-cultural samples. It would be the way towards development of new, more reliable, culturally unlimited, and globally applicable instruments to measure service quality in retail. Qualitative researches and extensive research of literature are a foundation to identify indicators that will be inserted or omitted from both scales. Neither SERVQUAL nor RSQS should be blindly applicable in different service activities and in different cultures under hypothesis that the customers behave similarly. It is necessary to review service quality dimensions in alternative cultural environments (Meng et al. 2009). Past research attempts to standardise service quality dimensions have not yielded fruit. It is necessary to direct researches towards discovering unique dimensions of perceived service quality in different sectors and towards finding regularities between sectors of similar type (Suuroja 2003). Eysteinnsson and Bjornsdottir (2012) confirmed in their study the findings of earlier research, that the dimensions of service quality in retailing differ according to culture and type of retail.

### **3. RESEARCH METHODOLOGY**

Field research was carried out on the sample of 861 respondents. Applied sample is, according to its characteristics, quota sample with the following control variables: city (Sarajevo, Tuzla, and Mostar), shops (Konzum, Bingo, Mercator, and Interex), gender, and age. Research tool (questionnaire) was developed using relevant scientific literature that was adjusted to chosen research topic. It consists of a set of claims that are related to dimensions of service quality and total service quality with which respondents express intensity of their agreement or disagreement. Likert's scale of five intensities was used in it. Measurement scale for total service quality used for the research was the one tested by Dabholkar et al. (2000). It was tested using Cronbach alpha coefficient, and obtained results of Cronbach alpha coefficient of 0.864 indicate good measurement scale reliability.

#### 4. RESEARCH RESULTS

Statistical analysis has been conducted in SPSS program for Windows (version 17.0, SPSS Inc. Chicago, Illinois, USA).

The following procedures and tests have been used in analysis: factorial analysis, correlation analysis and variance analysis (One-way ANOVA with post hoc tests). The results have been expressed as mean and standard deviation. The level of importance is  $p=0.05$ . P values, which could not be expressed up to three decimal digits are shown as  $p<0.001$ .

Table 1

Code	Indicators	Source
S1	This store offers wide range of products.	Author's own indicators
S2	This store offers products of different quality	
S3	This store offers different brands of products.	
S4	This store always has enough stocks of products I purchase.	
S5	This shop offers products of different price range.	
S6	This store has modern-looking equipment and fixtures.	
S7	This store has clean, attractive, and convenient public areas (restrooms, fitting rooms).	Dabholkar et al. 1996.
S8	The store layout at this store makes it easy for customers to find what they need.	
S9	The store layout at this store makes it easy for customers to move around in the store	
S10	Employees in this store are consistently courteous with customers.	
S11	Employees in this store have the knowledge to answer customers' questions.	
S12	Employees in this store are never too busy to respond to customer's requests	
S13	The behavior of employees in this store instill confidence in customers.	
S14	This store provides plenty of convenient parking for customers.	

Factorial analysis has been conducted on 14 indicators (based on the work of Dabholkar et al. 1996 and author's own indicators) shown in Table 1.

The results of testing sampling adequacy and test of sphericity have shown that the data are suitable to conduct factorial analysis to determine service quality dimensions (Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.938, a Bartlett's Test of Sphericity is significant  $p<0.001$ ).

Factorial analysis (Rotation Method: Varimax with Kaiser Normalization) has resulted in three factors which embraced all analysed statements. The first factor has 44.120% of variance, the second 11.324%, and the third 7.318%. Total of 62.762% of variance has been explained, which is

in compliance with recommendations of Hair et al. (2010), who suggest that minimal share for social sciences should be 60%.

Scree plot (factor representation in relation to eigenvalues) has been used as additional criterion. It has shown that a curve aims at levelling after the third factor, which coincides with the above results so the three factors are retained. The solution of factorial analysis is shown in Table 2.

Table 2

Rotated Component Matrix <sup>a</sup>	Component		
	1	2	3
S1			.550
S2			.844
S3			.845
S4			.526
S5			.518
S6	.744		
S7	.742		
S8	.654		
S9	.715		
S10		.756	
S11		.787	
S12		.794	
S13		.800	
S14	.738		
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
<sup>a</sup> Rotation converged in 5 iterations.			

It is necessary to check internal consistency of the statements' set, i.e. factors' reliability so Cronbach's Alpha coefficient has been determined for every factor to check justification of grouping certain statements into obtained factors. The value of the above-mentioned coefficient is between 0 and 1 where higher value indicates higher reliability of dimension. Table 3 shows the values of the above-mentioned coefficient and factor names.

Table 3

Factor	Statements that get into factor	Number of statements	Cronbach's Alpha	Factor name
F1	1,2,3,4,5	5	0.812	merchandising
F2	6,7,8,9,14	5	0.843	physical environment
F3	10,11,12,13	4	0.842	interaction with employees

Cronbach's Alpha coefficient for all identified factors is higher than 0.8, which indicates good internal consistency.

Factor correlation and total service quality is shown in Table 4.

Table 4

		F1	F2	F3
UKU	Pearson Correlation	.535**	.522**	.793**
	Sig. (2-tailed)	.000	.000	.000
	N	861	861	861

\*\* . Correlation is significant at the 0.01 level (2-tailed).

All three factors are in significant positive correlation with total service quality. According to value of correlation coefficient it can be concluded that correlation is the strongest between F3 factor (interaction with employees) and total service quality.

The analysis of differences in average grades of factors with regards to sociodemographic characteristics of examinee (gender, age, education, income level) has shown significant difference only with the level of income (the difference has been found for all three factors). Average factor grades according to income groups are shown in Table 5, and the results of variance analysis (ANOVA) in Table 6. The examinees who did not respond to a question about level of income were excluded from this analysis.

Table 5

Factor	Income level (BAM)	N	Mean	Std. Deviation	Std. Error
F1	do 700	192	6.174	.680	.049
	701 – 1000	203	6.167	.673	.047
	1001 – 1500	136	5.918	.766	.065
	above 1500	97	6.052	.877	.089
	Total	628	6.097	.736	.029
F2	do 700	192	6.140	.783	.056
	701 – 1000	203	6.216	.826	.057
	1001 – 1500	136	5.925	.904	.077
	above 1500	97	6.021	1.043	.105
	Total	628	6.099	.873	.034
F3	do 700	192	4.299	.622	.044
	701 – 1000	203	4.303	.638	.044
	1001 – 1500	136	4.075	.627	.053
	above 1500	97	4.286	.720	.073
	Total	628	4.250	.649	.025

Table 6

		Sum of Squares	df	Mean Square	F	Sig.
F1	Between Groups	6.693	3	2.231	4.173	<b>.006</b>
	Within Groups	333.582	624	.535		
	Total	340.275	627			
F2	Between Groups	7.797	3	2.599	3.450	<b>.016</b>
	Within Groups	470.082	624	.753		
	Total	477.880	627			
F3	Between Groups	5.313	3	1.771	4.262	<b>.005</b>
	Within Groups	259.312	624	.416		
	Total	264.625	627			

Additional testing was conducted to determine which income groups of examinees significantly differentiate.

It has been confirmed that in evaluation of F1 factor (merchandising) there is a significant difference between examinees with incomes lower than BAM 100 and examinees with incomes from BAM 1001 to 1500 ( $p=0.012$ ), and examinees with incomes from BAM 701 to 1000 and examinees with incomes between BAM 1001 to 1500 ( $p=0.014$ ). In both cases the examinees with higher incomes gave lower grade to merchandising factor.

It has been confirmed that in evaluation of F2 factor (physical environment) there is a significant difference between examinees with incomes from BAM 701 to 1000 and examinees with incomes between BAM 1001 to 1500 ( $p=0.017$ ). Higher grade for physical environment factor was given by examinees with lower incomes.

It has been confirmed that in evaluation of F3 factor (interaction with employees) there is significant difference between examinees with incomes lower than BAM 100 and examinees with incomes from BAM 1001 to 1500 ( $p=0.023$ ), and the examinees with incomes between BAM 701 to 1000 and examinees with incomes between BAM 1001 to 1500 ( $p=0.018$ ). In both cases the examinees with higher incomes gave lower grade to this factor.

## 5. CONCLUSIONS

The results of conducted research indicate presence of three dimensions of service quality in retail (hypermarkets) in the Federation of Bosnia and Herzegovina. They are merchandising, physical environment, and interaction with employees. It turns out that all three of them positively influence perceived service quality in retail. Regarding this matter interaction with employees has the strongest influence. So, in product-dominant retail environment, which is not purely service one, interaction with employees is more important even than offer, product range of a shop, and physical environment. Therefore, optimal products' range consistent with customers' requirements, successful

internal marketing management, and successful management of shop's physical environment will positively influence customers' perception on service quality in retail (hypermarkets). Consequently, retailers should focus on:

- ensuring availability of products that are compliant with customers' requirements
- improving of internal marketing activities ensuring that the right person/employee is on the right place and
- controlling the elements of the physical environment by creating convenient and comfortable place to move and buy.

The analysis of differences in factors' average grades with regards to sociodemographic characteristics of examinees (gender, age, education and income level) has shown significant difference only with income level (the difference was found for all three factors). The examinees with the highest incomes evaluated all three dimensions of service quality with the lowest grades. Afore-mentioned opens the possibility to observe realisation of marketing aims in retail based on market segmentation, taking into consideration differences in service quality perception that are based on differences in household incomes.

It is necessary to interpret the results of conducted research by taking into consideration limitations of research as well. The selection of indicators for measurement of service quality dimensions chosen for this research can be considered as one of its limitations. They have been selected based on insight in referent and relevant scientific literature of selected area, which evidences reliability of selected measurement instruments, research perspicacity, and one's own observation of retail market in the Federation of Bosnia and Herzegovina. The selection of some other indicators in future research and selection of other retail formats in sample creation would be a way towards generalisation of obtained research results.

The importance of employees' role in product-dominant retail environment, which have been confirmed by the research results, raises the question of necessity of proper sales personnel management. Therefore, future research should address both internal marketing and interactive marketing as components of marketing services in the retail environment.

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