

# Conceptual model of key predictors and consequences of customer satisfaction

## Концептуални модел кључних предиктора и консеквенци сатисфакције потрошача

**Nađa Đurić**

Faculty of Economics, University of Kragujevac Kragujevac, Republic of Serbia, [nadja.djuric@ef.kg.ac.rs](mailto:nadja.djuric@ef.kg.ac.rs)

<https://orcid.org/0000-0003-4358-7465>

---

**Abstract:** Satisfied customers represent an important resource for a company. So far research has shown that customer satisfaction has an impact on the return on investment, the growth of the company's market share, and shareholder value. The importance of research on customer satisfaction is seen in the fact that it most often leads to loyalty, which represents an important prerequisite to a company's long-term profitability. In line with the significance of these two concepts in companies' success, the topics of this research are the determinants of customer satisfaction and the relationship between satisfaction and loyalty. The goal of the research is the identification of key variables and the measurement of their respective impact on customer satisfaction. An adapted expectancy-disconfirmation model was used for the identification of key determinants. Satisfaction was viewed as a function of customer expectations and perceived product performance, and an additional component, the company's image. This research was carried out on the territory of the Republic of Serbia through an online survey. The obtained conclusions can help companies in Serbia to better the quality of provided services, with the end goal being achieving an agreeable level of customer satisfaction and loyalty, and with it, higher profitability.

**Keywords:** Customers satisfaction, customer loyalty, perceived quality, company's image, customer expectations

**JEL classification:** M31

**Сажетак:** Задовољни потрошачи представљају значајан ресурс за компанију. Досадашња истраживања указују на то да задовољство има утицај на повраћај улагања, раст тржишног удела компаније и вредност за акционаре. Значај истраживања сатисфакције потрошача огледа се у чињеници да она најчешће води ка лојалности, која представља важан предуслов дугорочне профитабилности компанија. У складу са значајем ова два концепта за успех компанија, предмет истраживања овог рада су детерминанте задовољства потрошача и однос сатисфакције и лојалности. Циљ спроведеног истраживања је идентификовање кључних варијабли и мерење утицаја сваке од њих на сатисфакцију потрошача. За идентификовање кључних детерминанти сатисфакције примењен је адаптирани модел непотврђивања очекиваног. Сатисфакција је посматрана као функција очекивања потрошача и уочених перформанси производа и додатне детерминанте, имиџа компаније. Истраживање је спроведено на подручју Републике Србије путем онлине анкете. Добијени закључци могу помоћи компанијама у Србији да унапреде квалитет пружених услуга, са крајњим циљем да се оствари одговарајући ниво сатисфакције и лојалности клијената, а самим тим и веће профитабилности.

**Кључне речи:** Задовољство потрошача, лојалност потрошача, перципирани квалитет, имиџ компаније, очекивања потрошача

**ЈЕЛ класификација:** М31

---

## Introduction

Customer satisfaction is a concept that attracts more and more attention in today's business world. In an ever-changing and provocative commercial environment, with a constant tendency towards the customer expectations growth, the price and the quality of a product cannot be enough for reaching and keeping an advantage over competitors on their own (Ozkan, Cek & Eyupoglu, 2022). Integration of the quality of the service provided, customer satisfaction, and customer loyalty creates a mutual relationship between the service provider and the user of said service (Hermans, 2015). In most cases, customer satisfaction opens a path for reaching the competitive advantage, while their loyalty makes keeping that advantage possible (Mittal, Han, Lee & Sridhar, 2021). It is a well-known fact that higher satisfaction level leads to repeated purchasing and creates loyalty with existing customers, but even more importantly, it also leads to the spread of positive reviews which attract new clients, and that increases competitiveness in the market and the company's profitability.

Scientific literature has multiple different definitions of satisfaction, and a consensus still hasn't been reached about the true meaning of this term, precisely because of the different approaches to it. A certain number of authors defines satisfaction as a result/condition, i.e. "the buyer's cognitive state of being adequately or inadequately rewarded for the sacrifices he has undergone" (Howard & Sheth, 1969). Another approach is to view satisfaction as an evaluation process, which gives us the definition of satisfaction as „an overall evaluation of purchasing experience focusing on the comparison of a product's or a service's perceived performance in relation to pre-shopping expectations” (Fornell, 1992). Oliver (1977) defined satisfaction as “an estimation of whether the characteristics of a product or a service, or the product or the service themselves, have accomplished an acceptable level of fulfilling the need that led them to go shopping”.

It is important for companies to identify the main prerequisites for achieving customer satisfaction, because based on them, they can conclude which aspects of business they should invest the most resources in. Customer satisfaction is often considered the key to the company's success and long-term competitiveness because it leads to repeated purchasing and creates a pool of loyal clients. The main question service providers are faced with is which are the determinants of satisfaction and loyalty, i.e. which factors influence the long-term use of a company's service/product (Fattah & Dahleez, 2021). Measurement of customer satisfaction is the focus of marketing and management teams, which endeavour to raise the satisfaction level, and with it the competitive advantage, with proper evaluation and allocation of necessary resources. Based on the results of these measurements, different effects can be observed, and adequate measures can be taken, with the goal of advancing the business (Maričić, Veljković & Đorđević, 2012).

The first attempt to measure customer satisfaction on a national level happened in Sweden in 1989; its primary goal was to follow and compare the satisfaction index between individual branches, as well as comparing the results of a specific company with the average of the branch, comparing the results in different time intervals, predicting long-

term results and effects; also, answering different questions, like the one about the sensitivity of certain branches (and companies) to the customer satisfaction, about the effects of overall quality and price, about the effect customer expectation has on satisfaction, about the effect of customer complaints and the effect of word of mouth propaganda etc. (Fornell, 1992). While certain countries started creating their own national barometers for measuring and identifying the index of customer satisfaction (for example: Singapore, Germany, Switzerland, Taiwan), most of the countries started using pre-existing models, among which the aforementioned Swedish and American measurement models are used the most. American barometer emphasizes the necessity of measuring the quality of products and the quality of services separately. The European Customer Satisfaction Index (ECSI) was defined at the end of the 20th century and, unlike ACSI and SCSB, along with customer expectation, perceived quality, and perceived value, emphasizes the image as an important determinant for satisfaction.

In this research, the adapted expectancy-disconfirmation model was used for detecting the main determinants of satisfaction. The expectancy-disconfirmation model contains four components: expectation, perceived performances, dissatisfaction, and satisfaction (Churchill & Surprenant, 1982). By this model, customers form expectations for products/services pre-shopping. Then the product is experienced and evaluated, after which the results (performance of the product) are compared to the expectations. The outcome of this process is either confirmed or disconfirmed expectations. In cases where the performance meets the expectations, a “neutral expectancy-disconfirmation” occurs, which implies that the user got the expected level of the quality of a service. If the performance of the product did not satisfy the initial expectations, a “negative expectancy-disconfirmation” occurs; then the customers become dissatisfied with the quality of the product/service they were given. Satisfaction occurs in the scenario of the “positive expectancy-disconfirmation”, where the performance goes beyond the expectations. This situation is the most optimal one, because it represents the highest level of satisfaction, which can quite easily be transformed into loyalty.

The results of research done by numerous authors (Andreassen & Lindestad, 1998; Martensen, Grønholdt & Kristensen, 2000; Kencana & Suputra, 2015; Rehman & Ishaq, 2017, etc.) point to the fact that another important determinant of satisfaction is company's image. Image pertains to the name of the brand and the type of associations customers get from the product/brand/company (Ciavolino & Dahlgaard, 2007).

Therefore, as important determinants of customer satisfaction, we can state the examination of perceived quality which reflects perceived performances, customer expectations, and company image. This paper especially focuses on questioning whether satisfaction is a resultant of the factors of expectation and perceived performances. Accordingly, the subjects of the paper's research are the connections between perceived quality, customer expectation, company's image, and customer satisfaction on one side, and the examination of the connection between customer satisfaction and customer loyalty. The

goal of this research is to identify the key determinants of customer satisfaction, detecting their effects on satisfaction, and consequently, the effect of satisfaction on customer loyalty.

The data were analysed in the Statistical Package for Social Sciences (SPSS, Version 20.0). The testing of the established research hypotheses was done by implementing correlation analysis, with the goal of testing the direction and strength of the connection between observed variables. The second step of analysing research hypotheses pertains to the use of multiple regression analysis to determine the effect of customer expectation, perceived quality, and company image on customer satisfaction.

Based on the defined subject and the goal of the research, this paper was structured into three interconnected units. The review of the literature about expectancy-disconfirmation model, determinants of satisfaction, and the relationship between customer satisfaction and customer loyalty is shown in the first part of the paper. Cited results of previous empirical research resulted in setting research hypotheses. The second part contains the description of research methodology. The third part of the paper contains the results of the correlational and the regression analysis, which were used to review the validity of set hypotheses.

## **1. Theory and hypotheses**

### **1.1. Oliver's expectancy-disconfirmation model**

The adaptation-level theory implies that the reaction of an individual to the received stimulant depends on the perception and reaction to similar stimuli in the past (Helson, 1964). Oliver (1980) applied this theory to studying customer satisfaction, claiming that satisfaction primarily depends on previously created expectations. According to his model, customers evaluate satisfaction with a product in comparison to their expectations of the product's performances. If the performance is above expectations, the satisfaction grows. If the performance (perceived quality) are below the expectations, satisfaction is lowered. Oliver (1980) concluded that expectation confirmation has a positive connection to a moderate level of customer satisfaction. Positive disconfirmation (perceived performances above expectations) increases customer satisfaction, while negative disconfirmation (perceived performances below expectations) leads to decreasing customer satisfaction.

The direct impact of expectancy-disconfirmation and customer satisfaction has been extensively researched. Bearden & Teel (1983) use a review of satisfaction determinants and customer complaints to show their positive connection. The same result was identified in the research of Khalifa & Liu (2007) & Chrissikopoulos (2014) etc.

In the cited research, customer satisfaction is primarily viewed as a function of customer expectation, and the observed the performances of products. However, results of more recent empirical research show that another significant determinant of satisfaction is company image (Rust, Moorman & Dickson, 2002; Kencana & Supurta, 2015). In fact, positive associations customers have towards some company will affect their experience and satisfaction with shopping a product/service from that company. Having in mind the

significance of company's image for customer satisfaction, other than the examination of basic determinants of satisfaction (expectations and perceived quality), this paper also researches the implications the image has on customer satisfaction.

## **1.2. Determinants of customer satisfaction**

### **1.2.1. Customer expectations**

Customer expectations relate to the anticipation of said product/service in the eyes of customer, which are the result of the active promotion of company/product, the experiences transferred from other users of company's services, or based on the previous experience with the company (Tenenhaus, Vinzi, Chatelin & Lauro, 2005).

The client generates expectations from a service and a product in a phase that precedes the shopping, and then, with the experience, creates comparative judgement between the received results and the initial expectations (Tejedor, Elola, Ajami & Bosch, 2019). Customer expectations and customer satisfaction are closely connected, and both are important factors while considering repeated shopping (Li & Liu, 2014). Satisfaction is achieved when the actual service experience exceeds the customer's anticipated expectations. Customer expectations are influenced by various factors and are formed based on their belief that the service will be delivered as desired. Satisfaction with the service is determined by the alignment between previously formed expectations and the perceived experience (Jevtić, Tomić & Leković, 2020). Halilovic & Cicic (2013) point out that expectations serve as a predecessor to determining the level of client satisfaction, where it was confirmed that expectation has a direct impact on satisfaction. During the research of client satisfaction on an online store, Hu, Kettinger & Poston (2015) came to the conclusion that satisfaction depends on expectations, as well as that their relationships are dynamic, and they evolve over time.

According to Oliver's expectancy-disconfirmation model, customer expectations have a positive effect on satisfaction. Satisfaction is achieved when the actual service experience exceeds the customer's anticipated expectations. Duan et al. (2022) point out that previous expectations of customers have a positive effect on satisfaction, i.e. if the expectations are met, customer satisfaction consequently grows as well. As the expectations grow, the expectancy-disconfirmation decreases, and vice versa. The positive correlation between expectations and satisfaction was confirmed by other authors as well (Lin, Wei & Lekhawipat, 2018; Szymanski & Henard, 2001; Spreng & Mackoy, 1996; Spreng, MacKenzie & Olshavsky, 1996).

However, Bayol (2000) concluded that customer expectations have a significant effect on the perceived value of a service, but that, on the other hand, they don't have a significant effect on customer satisfaction. Based on the previously stated results, the following hypothesis has been set:

H1: Customer expectations have a significant effect on customer satisfaction.

### 1.2.2. Perceived quality

Perceived performances can be defined as beliefs about the attributes of a product or the outcome of a used service (Cadotte, Woodruff & Jenkins, 1987). Since quality is a key component of performances (values), this research views the effect of quality on satisfaction.

Previous research was divided into the measurement and the effect of performances (values) on satisfaction and the effect of the measurement of quality on satisfaction. According to the disconfirmation model, perceived performances have a positive impact on satisfaction, which further implies that quality also has a direct effect on satisfaction. Besides Oliver (1987), a positive and meaningful relationship between perceived quality and satisfaction has been proven by Spreng, MacKenzie & Olshavsky (1996), Lankton & McKnight (2012), Wang et al. (2019). Tejdor, Eloa, Ajami & Bosh (2019) concluded that the perceived quality of service has the biggest impact on satisfaction, by researching customer satisfaction in the wine industry. Bayol (2000) had come to the conclusion that perceived quality has the biggest impact on customer satisfaction, while the perceived performance of a service has a smaller and moderately positive impact, by analysing the satisfaction of customers with mobile service providers.

On the other hand, some research doesn't identify perceived quality as an important determinant of satisfaction: Westbrook (1981) analysed the determinants of customer satisfaction in outlets and concluded that perceived quality does not have a significant impact on satisfaction; similar conclusions were made by Bearden & Teel (1983), Oliver (1980) etc. In order to research the effect perceived quality has on customer satisfaction, the following hypothesis was set:

H2: Perceived quality has a meaningful effect on customer satisfaction.

### 1.2.3. Company's image

Other than basic determinants of satisfaction by the expectancy-disconfirmation model, the effect the company's image has on customer satisfaction was also examined. The reason a company's image was introduced as a determinant can be seen in previous studies, which point to a significant effect the image has on satisfaction and loyalty.

A company's image can also be defined as the way the public sees an organization and its products or services (Ciavolino & Dahlgaard, 2007). Attitudes towards a certain brand and satisfaction are considered different concepts in the literature about customer satisfaction (Oliver, 1980). According to Oliver (1981), customer satisfaction is relatively fleeting, while the attitudes towards a brand are relatively lasting.

Consumers' product choices are significantly influenced by the brand. A strong and clear brand image inspires a higher level of confidence during shopping. Furthermore, brand equity is a crucial predictor of market success, a source of competitive advantage, and an essential element of business operations (Gluhović, 2019).

Organizational culture, organization's politics, the employees' image, products and services, and marketing communication about the organization have the most effect in creating a picture about that organization (Rust, Moorman & Dickson, 2002). In research, done by Kencana and Supurta (2015), of determinants that affect the satisfaction of customers using smartphone services, it has been proven that the company's image and brand definitely do have an impact on customer satisfaction, while the impact on loyalty is bigger.

Sondoh et al. (2007) used a sample of 97 Malaysian women who were using colour cosmetics and determined that the image has a high impact on satisfaction and loyalty. Kim & Kim (2004) used a sample of 394 fast food consumers in Korea to identify the strong effect that a brand has on customer satisfaction. In accordance with the latest research on the effect of a brand on customer satisfaction, the following research hypothesis was defined:

H3: Company image has a direct effect on customer satisfaction.

### **1.3. Satisfaction and loyalty**

Customer satisfaction is a critical element for the long-term business development and profitability (Bernhardt, Donthu & Kennett, 2000). One unsatisfied user of a service can damage the organization and its business by spreading negative experiences, than ten very satisfied users of the same service (Mohsan et al., 2011). Still, the effect of satisfied customers is not the same for a company as the effect of repeated shopping, which leads to generating loyal clients. The loyalty of a company's customers has been recognized as a dominant business factor for an organization's success (Kandampully & Suhartanto, 2000).

Even though a great number of researchers concluded that satisfaction often leads to loyalty, there is a notable amount of research that resulted in the conclusion that satisfaction is weakly connected with loyalty or repeated shopping in certain situations. Olsen (2007) pointed out that the relationship between satisfaction and loyalty varies between different industries and that many factors can influence the level of the relation, such as commitment, trust or the degree of involvement of the customer. Auh & Johanson (1997) researched the relationship between satisfaction and loyalty in the automobile industry and came to the conclusion that the relationship is complex, and it varies depending on the level of satisfaction and the category of customers. Kencana & Supurta (2015) got similar results, proving that satisfaction has no significant impact on loyalty, and that customer loyalty is primarily influenced by image and expectations.

On the other hand, Biscaia, Rosa, Sá & Sarricio (2017) come to the conclusion that in most cases customer loyalty is actually the result of those customers'

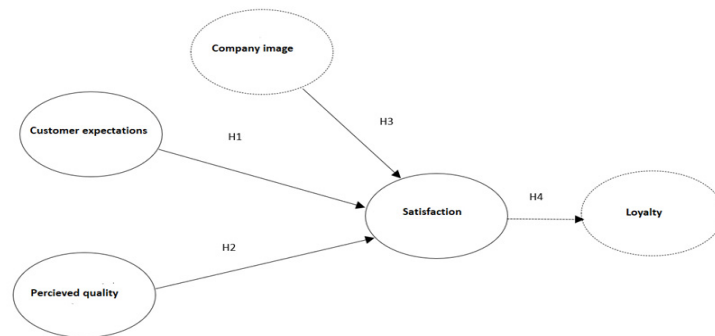
satisfaction; they also concluded that the main preface to repeated shopping is previous satisfaction. Researching the interrelationships of customer satisfaction and loyalty in a Nigerian national airline, Ganiyu (2017) concluded that customer satisfaction is tightly connected to customer loyalty and has potential to increase it directly. Due to given conclusions stated in previous research, the following hypothesis was set:

H4: The satisfaction of customers with a bought product/service significantly affects their loyalty.

## 2. Research methodology

The primary data was also collected using the survey method, which is most commonly used in this type of research. The online survey was conducted between May 16th and June 8th, 2022. The sample includes 196 individuals who were surveyed regarding the benefits of the voluntary health insurance program. For the measurement of customer satisfaction by using the expectancy-disconfirmation model, by which satisfaction is viewed as a function of expectation and the products' performances, this research was expanded to include a company image as an important satisfaction determinant, as identified by reviewing the relevant literature. The research model is shown in Picture 1. Other than identifying the satisfaction determinants, this model gives the opportunity to analyse the relationship between satisfaction and loyalty.

Picture 1. Research model



Source: the author



### 3. Results

To determine the strength of the connection between researched variables, the correlation analysis was conducted; the results are shown in Table 1.

Table 1: Correlation analysis

	Customer expectations	Perceived quality	Customer satisfaction	Customer loyalty	Company image
Customer expectations	1	.894**	.857**	.856**	.879**
Perceived quality	.894**	1	.877**	.866**	.895**
Customer satisfaction	.857**	.877**	1	.892**	.878**
Customer loyalty	.856**	.866**	.892**	1	.871**
Company image	.879**	.895**	.878**	.871**	1

\*Value is significant on the level of 0.01

Source: the author's research

Based on the obtained values of correlation coefficient, it can be concluded that there is a statistically significant connection on the level of 0.01 between all analysed variables. The strongest correlation exists between the variables of company image and perceived quality, as well as between satisfaction and loyalty. From Table 3, we conclude that there is the smallest correlation between the variables of customer expectations and customer loyalty.

To test the first three established hypotheses, a multiple regression analysis that examines the effect of three independent variables on the dependent variable of customer satisfaction was carried out (Table 2). Multicollinearity is not considered a problem if the value of the VIF coefficient (Variance Inflation Factor) is less than 10 in all pairings of variables. This model, with the help of independent variables (customer expectations, perceived quality and company image) explains 81.5% of the variability of the dependent variable (customer satisfaction), as shown by the coefficient of determination ( $R^2$ ). The results of the research show that the dependent variable of satisfaction is statistically significantly impacted by all three independent variables: customer expectation ( $\beta=0,229$ ;  $p<0.02$ ), perceived quality ( $\beta=0.361$ ;  $p<0.01$ ) and company image ( $\beta=0.350$ ;  $p<0.01$ ), which confirms the established hypotheses (H1, H2 and H3). Based on the size of the coefficient, it is concluded that perceived quality has the most significant impact, followed by image, with customer expectation as the lowest impact.

Table 2: The effect of customer expectations, perceived quality and company image on satisfaction

Model	Beta	t	Significance(p)	$R^2$	VIF
Customer expectations	0.229	3.149	0.002	0.815	5.486
Perceived quality	0.361	4.728	0.000		6.037
Company image	0.350	4.533	0.000		6.170

Dependent variable: Customer satisfaction

Source: the author's research

The last research hypothesis of this paper is tested by setting client satisfaction as an independent variable and client loyalty as a dependent variable. The effect of customer satisfaction with a service on clients' loyalty was examined using a simple linear regression. Based on the coefficient of determination, we come to the conclusion that satisfaction describes 79.5% of the variability of loyalty and has a strong effect on loyalty, as seen by the high value of the beta regression coefficient.

Table 3: The effect of customer satisfaction on loyalty

Model	Beta	t	Significance(p)	R <sup>2</sup>	VIF
(Constant)		4.347	0.000	0.795	
Customer satisfaction	0.892	27.41	0.000		1.000

Source: the author's research

## Discussion

Starting with the main goal of the research and the developed research model, the obtained results show that, out of all viewed variables, perceived quality has the most significant effect on satisfaction, which points out the importance of creating a high-quality offer. These results are in accordance with the results obtained by Tejedor, Elolaa, Ajami, and Bosch (2019), Anderson & Sullivan (1993), Johnson & Fornell (1991), and Nguyen, Nguyen, Nguyen, & Phan (2018). This shows the consistency of the conclusion that quality is the most important predictor of satisfaction. Furthermore, this represents an input for companies that, in the case of limited resources for investing in generating customer satisfaction, priority should be given to the quality of the products and services.

The next most important determinant of satisfaction is company image, which means that in the wide spectrum of activities undertaken by managers, an important position should be given to the conception and implementation of a strategy for regular advancement of the brand's image. If we have the knowledge that the brand's image reflects the overall customer perception, it can be an instrument for achieving a competitive advantage.

These results are consistent with the results of authors Hossain, Yesmin, Jahan & Kim (2021), who also concluded that image has a significant effect on satisfaction. However, these results do not match with the conclusions made by Kencana & Supurta (2015), which show that image does not have an important effect on satisfaction. The differences can be explained by the fact that the research by mentioned authors was limited on the impact of the brand in the smartphone industry. In other words, unlike the quality of the products, which was identified as the basic predictor of satisfaction in the biggest number of examinations, image can have a weaker effect in specific industries. Almsalam (2014) used a sample of 250 clients of 5 banks in Damask to prove that customer expectation has a significant positive effect on customer satisfaction, and that the perceived quality of a service has a significant positive effect on user satisfaction as well.

In addition to the differences in the results of research done by Bayol (2000) and Kencana & Supurta (2015), there are also similarities in saying that expectations have a

weaker effect on satisfaction than image and perceived quality. The factors that influence expectations for satisfaction were criticized by LaTour & Peat (1979), who pointed out that expectations cannot be determinants of satisfaction in situations where customers do not have their favourite brands available. In such situations, customers are not satisfied with buying a certain brand, even when the quality exceeds expectations. Customers' values and wishes have more of an effect on satisfaction than their expectations from a service, according to Mattila and Wirtz. Similar conclusions, that dispute the theory that satisfaction is a resultant of fulfilled expectations, come from authors Spreng & Dixon (1992), Stanforth & Lennon (1997), and Barbeau, Sweet & Fortier (1985); Barbeau et al. also point out that the fulfilled/unfulfilled need coming from the bought product or a used service has a bigger effect on satisfaction than the expectations from said product/service. At the same time, the results are not consistent with the conclusions of Li & Liu (2014), who touch on the importance of customer expectation as a satisfaction determinant for companies that operate in a dynamic environment. A highly positive and statistically significant effect that customers' satisfaction with services has on loyalty shows that a bigger satisfaction of client with the services leads to a bigger client loyalty and repeated shopping. A great number of authors confirm this strong statistical connection (Lin & Yin (2022), Ertemel, Civelek, Pektas & Cemberci (2021)). This is important for companies because, by offering a high-quality product, they get satisfied customers and could end up making satisfied customers into loyal ones. This is relevant information for a company, because loyalty is a truer measure of quality than satisfaction. To recommend a product or a service to other people has bigger consequences and demands more commitment than simply pointing out that someone is more or less satisfied with the product/service (Coenders & O'Loughlin, 2002).

In fact, authors Martensen, Gronholdt & Kristensen (2000) point out that satisfaction is the most important determinant of loyalty, which helps companies to keep clients. The results match this conclusion, as around 80% of the loyalty variable is explained by the satisfaction variable.

## Conclusion

In today's conditions of outstanding competition and the ever-growing customer demands, satisfaction and loyalty of customers/users of services have become one of the key factors to survive in the market. The main goal of this paper was to discover the key dimensions of customer satisfaction. The conclusion is that perceived quality and company image have the biggest effect on satisfaction, while customer expectations have the smallest effect. This implies that, in the modern conditions of business, the companies' priority is to deliver a high quality of a service, and also to make sure that the company's image is sold in the most positive way possible.

The contribution and the originality of this research can be seen in the use of an expanded and adapted satisfaction model made by author Oliver (1980), with the inclusion

of the additional determinant of the company image. A very small number of studies in Serbia examine the determinants of customer satisfaction in line with the theoretical concept of Oliver's model. This study expands the theoretical knowledge about the most important determinant of satisfaction, as related to viewing the cumulative effect of expectations, performances and company image on customer satisfaction. The other contribution is seen in the confirmation of the important effect satisfaction has on customer loyalty. The practical contribution is seen in the potential use of the results of this research, which can be useful to the companies who focus on creating a base of satisfied and loyal customers.

The obtained results enable the identification of certain practical implications that can be helpful to a company's management team while making relevant decisions, having in mind that customers want products and service that are more than a simple satisfaction of their expectations and that give a high level of quality for a longer time (Cossio-Silva et al., 2016). The implications of the conducted research refer to giving input to managers so that the process of allocation of limited financial resources gives an important spot to the conception and the implementation of the strategy of the continued advancement of brand image, and the ensuring of maximum quality of every attribute of a product/service that a customer perceives. Strong brand image and high quality of the products will have positive effects on customer satisfaction and loyalty, which further has a positive impact on the establishment of a long-term profitability on realistic bases. With the obtained results, the concept of creating satisfied customers through controlling expectations from a product/service has been overcome. In order to generate satisfied and loyal customers, the companies' management has to direct the activities to the practice of frequent marketing of a product, forming positive relationships with the public, the innovating the product range, and advancing management systems with quality.

Companies can expect significant positive effects due to an increased number of satisfied and loyal customers: they are willing to pay more for the new models of the products belonging to a certain brand; they tell their friends and family about their positive impressions about the brand; they make suggestions about eventual upgrades to some of the characteristics of the product/service belonging to that brand (Heskett, Sasser & Schlesinger, 1997). Managers can use this research as a starting point of learning the ways to measure brand image, customer satisfaction and loyalty, and the ways brand image effects customer satisfaction.

Certain limitations of this study pertain to the fact that satisfaction is viewed as a resultant of perceived quality, customer expectations and image. Latest studies of satisfaction include some additional determinants, such as customer wishes (Spreng & Mackoy, 1996), customer care after a used service (Smith & Wright, 2004), customer trust (Jaiyeoba, Svotwa & Roberts-Lombard, 2020), and other determinants that could have a significant impact on satisfaction. Future research should include additional variables in order to conclude which one of them has the most significant effect. Besides, advanced studies can also be oriented to questioning which exact dimensions of perceived quality of service have the most impact on satisfaction.

## References

- Almsalam, S. (2014). The effects of customer expectation and perceived service quality on customer satisfaction. *International Journal of Business and Management Invention*, 3, 79-84.
- Anderson, E.W. & Sullivan, M.W. (1993). The antecedents and consequences of customer satisfaction for firms. *Marketing Science*, 12, 125-143.
- Andreassen, T.W. & Lindestad, B. (1998). Customer loyalty & complex services: the impact of corporate image on quality, customer satisfaction & loyalty for customers with varying degrees of service expertise. *International Journal of Services & Industrial Management*, 9, 7-23.
- Auh, S. & Johnson, M. (1997). The complex relationship between customer satisfaction and loyalty for automobiles. *Customer Retention in the Automotive Industry*, 141-166. Doi: [https://doi.org/10.1007/978-3-322-84509-2\\_7](https://doi.org/10.1007/978-3-322-84509-2_7)
- Barbeau, A. & Sweet, S. & Fortier, M. (2010). A path-analytic model of self-determination theory in a physical activity context. *Journal of Applied Biobehavioral Research*, 14, 103-118. Doi: <https://doi.org/10.1111/j.1751-9861.2009.00043.x>
- Bayol, M., Foye, A.D., Tellier, C., & Tenenhaus, M. (2000). Use of PLS path modelling to estimate the European Consumer Satisfaction Index (ECSI) model. *Statistica Applicata*, 12(3), 361-375.
- Bearden, W. O. & Teel, J. E. (1983). Selected Determinants of Consumer Satisfaction and Complaint Reports. *Journal of Marketing Research*, 20 (1), 21-28.
- Bernhardt, K. L., Donthu, N., & Kennett, P. A. (2000). A longitudinal analysis of satisfaction and profitability. *Journal of Business Research*, 47(2), 161-171. Doi: [https://doi.org/10.1016/S0148-2963\(98\)00042-3](https://doi.org/10.1016/S0148-2963(98)00042-3)
- Biscaia, A.R., Rosa, M.J., Sá, P.M. & Sarrico, C.S. (2017). Assessing customer satisfaction and loyalty in the retail sector. *International Journal of Quality & Reliability Management*, 34, 1508-1529.
- Churchill, G. A., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research*, 19(4), 491-504.
- Ciavolino, E. & Dahlgaard, J. (2007). ECSI – Customer satisfaction modelling and analysis: A Case Study. *Total Quality Management*, 18(5), 545-554. Doi: <https://doi.org/10.1080/14783360701240337>
- Duan, X., Ni, X., Shi, L., Zhang, L., Ye, Y., Mu, H., Li, Z., Liu, X., Fan, L. & Wang, Y. (2019). The impact of workplace violence on job satisfaction, job burnout, and turnover intention: the mediating role of social support. *Health Quality of Life Outcomes*, 17(1). Doi: <https://doi.org/10.1186/s12955-019-1164-3>.

- Ertemel, A.V., Civelek, M.E., Eroglu Pektas, G.O., Cemberci, M. (2021). The role of customer experience in the effect of online flow state on customer loyalty. *PLoS ONE*, 16(7). Doi: <https://doi.org/10.1371/journal.pone.0254685>
- Fattah, F.& Dahleez, K.A. (2021). Influence of service quality on consumer loyalty: a mediation analysis of health insurance. *The TQM Journal*, 33(8), 1787-1805. Doi: <https://doi.org/10.1108/TQM-09-2020-0219>
- Fornell, C. (1992). A national customer satisfaction barometer: the Swedish experience. *Journal of Marketing*, 56, 6-21. Doi: <https://doi.org/10.2307/1252129>
- Ganiyu, R.A. (2017). Customer satisfaction and loyalty: a study of interrelationships and effects in Nigerian domestic airline industry. *Oradea Journal of Business and Economics*, 2, 7-20.
- Gluhović, N. (2019). Influence of country of origin image on brand equity of consumers in Bosnia and Herzegovina: the case of smartphone market. *Anali Ekonomskog fakulteta u Subotici*, 56(43), 15-29. Doi: <https://doi.org/10.5937/AnEkSub2001015G>
- Halilovic S., Cicic, M. (2013). Understanding determinants of information systems users' behaviour: a comparison of two models in the context of integrated accounting and budgeting software. *Behaviour & Information Technology*. 32(4), 359-370.
- Helson, H. (1964). *Adaptation-level theory: an experimental and systematic approach to behavior*. Harper and Row: New York.
- Hermans, O. (2015). Service integrated relationships (SIR): A strategic process framework for managing the customer as a resource. *Journal of Creating*, 1(1), 119-129. Doi: <https://doi.org/10.1177/2394964315569630>
- Heskett, J., Sasser, E., Schlesinger, L. (1997). *The Value Profit Chain*. New York: The Free Press.
- Hossain, M.A., Yesmin, M.N., Jahan, N. & Kim M. (2021). Effects of service justice, quality, social influence and corporate image on service satisfaction and customer loyalty: moderating effect of bank ownership. *Sustainability*, 13 (3). Doi: <https://doi.org/10.3390/su13137404>
- Howard, J.A. & Sheth, J.N. (1969). *The Theory of Buyer Behavior*. John Wiley, New York.
- Hu, T., Kettinger, W.J. & Poston, R.S. (2015). The effect of online social value on satisfaction and continued use of social media. *European Journal of Information Systems*, 24(4), 391-410. Doi: <https://doi.org/10.1057/ejis.2014.22>
- Jaiyeoba, O., Sivotwa, D.T. & Roberts-Lombard, M. (2020). Precursors and outcome of customer satisfaction/delight in business-to-consumer relationships in Botswana. *South African Journal of Business Management*, 51, 1-11.
- Johnson, M. D., & Fornell, C. (1991). A framework for comparing customer satisfaction across individuals and product categories. *Journal of Economic Psychology*, 12, 267-286.

- Jevtić, J., Tomić, S. & Leković, K. (2020). Customer experience in the tourism industry – Determinants influencing complaint behaviour. *Hotel and Tourism Management*, 8 (2), 25-33.
- Kandampully, J. & Suhartanto, D. (2000). Customer loyalty in the hotel industry: the role of customer satisfaction and image. *International Journal of Contemporary Hospitality Management*, 12 (6), 346-351.
- Kencana, I. P. E. N. & Suputra G.S. (2015). The determinants of customers' loyalties of Smartphone. *Journal Mathematica*, 5(2), 92-104.
- Khalifa, M. & Liu, V. (2007). Online consumer retention: contingent effects of online shopping habit and online shopping experience. *European Journal of Information Systems* 16(6), 780–792.
- Kim, G. & Kim, H. (2004). Measuring customer based restaurant brand equity: investigating the relationship between brand equity and firm's performance. *Journal Cornell Hotel & Restaurant Administration Quarterly*, 45(2): 115-131.
- Lankton N. & McKnight H. (2012). Examining two expectation disconfirmation theory models: assimilation and asymmetry effects. *Journal of the Association for Information Systems*, 13, 88-115.
- LaTour S. & Peat N. (1980). The role of situationally-produced expectations, others' experiences, and prior experience in determining consumer satisfaction. *Advances in Consumer Research*, 7, 588-592.
- Li, D. & Liu, J. (2014). Dynamic capabilities, environmental dynamism, and competitive advantage: evidence from China. *Journal of Business Research*, 67 (1), 2793-2799.
- Lin, C., Wei, Y. H., Lekhawipat, W. (2018). Time effect of disconfirmation on online shopping. *Behaviour and Information Technology*, 37(1), 87-101. Doi: <https://doi.org/10.1080/0144929X.2017.1406004>
- Lin, W. & Yin, W. (2022). Impacts of service quality, brand image, and perceived value on outpatient's loyalty to China's private dental clinics with service satisfaction as a mediator. *PloS one*, 17(6). Doi: <https://doi.org/10.1371/journal.pone.0269233>
- Maričić, B., Veljković, S. & Djordjevic, A. (2012). Customer satisfaction measurement. *Marketing*, 43, 235-244.
- Martensen, A., Gronholdt, L. & Kristensen, K. (2000). The drivers of customer satisfaction and loyalty, cross-industry findings from Denmark. *Total Quality Management*, 11, 544–553.
- Mattila, A. & Wirtz, J. (2001). Congruency of scent and music as a driver of in-store evaluations and behaviour. *Journal of Retailing*, 77(2), 273-289.

- Mittal, V., Han, K., Lee, J., Sridhar, S. (2021). Improving business-to-business customer satisfaction programs: assessment of asymmetry, heterogeneity, and financial impact. *Journal of Marketing Research*, 58(4), 615-643. Doi: <https://doi.org/10.1177/00222437211013781>
- Mohsan, F., Nawaz, M., Khan, M., Shaukat, M. & Aslam, N. (2011). Impact of Customer Satisfaction on Customer Loyalty and Intentions to Switch: Evidence from Banking Sector of Pakistan, *International Journal of Business and Social Science*, 2(16).
- Nguyen, H., Nguyen, H., Nguyen, N., Phan, A. (2018). Determinants of customer satisfaction and loyalty in Vietnamese life-insurance setting. *Sustainability*, 10, 1151-1168. Doi: <https://doi.org/10.3390/su10041151>
- Oliver R. L. & DeSarbo, W. S. (1988). Response determinants in satisfaction judgment, *Journal of Consumer Research*, 14, 495- 507.
- Oliver, R. L. (1980). A Cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460–469.
- Oliver, R.L. (1977). Effect of expectation and disconfirmation on postexposure product evaluations: an alternative interpretation. *Journal of Applied Psychology*, 62, 480-486. DOI: <https://doi.org/10.1037/0021-9010.62.4.480>
- Oliver, R.L. (1981) Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing*, 5, 25-48.
- O'Loughlin, C. & Coenders, G. (2002). Application of the European Customer Satisfaction Index to Postal Services. Structural Equation Models versus Partial Least Squares. *Working Papers of the Department of Economics*, Department of Economics, University of Girona.
- Olsen, J. (2005). The institutional dynamics of the European University. *ARENA* Doi: [https://doi.org/10.1007/978-1-4020-5971-1\\_2](https://doi.org/10.1007/978-1-4020-5971-1_2)
- Ozkan, M., Cek, K., Eyupoglu S.Z. (2022). Sustainable development and customer satisfaction and loyalty in North Cyprus: the mediating effect of customer identification. *Sustainability*, 14, (9). Doi: <https://doi.org/10.3390/su14095196>
- Rehman, H.U. & Ishaq, Z. (2017). The impact of brand image on purchase intention: moderating role of store image in Pakistan's retail sector. *Journal of Brand Management* 9(3), 55-64.
- Rust, R.T., Moorman, C. & Dickson, P.R. (2002). Getting return on quality: cost reduction, revenue expansion, or both? *Journal of Marketing*, 66(4), 7-24. Doi: <https://doi.org/10.1509/jmkg.66.4.7.18515>
- Smith, R. & Wright, W. (2004). Determinants of customer loyalty and financial performance. *Journal of Management Accounting Research*, 16, 183-205. Doi: <https://doi.org/10.2308/jmar.2004.16.1.183>



- Sondoh, S. L., Omar, M. W., Wahid, N. A., Ismail, I., & Harun, A. (2007). The effect of brand image on overall satisfaction and loyalty intention in the context of colour cosmetic. *Journal Asian Academy of Management*, 12(1), 83-107.
- Spreng R. & Dixon A. (1992). Alternative comparison standards in the formation of consumer satisfaction/dissatisfaction. In *Enhancing Knowledge Development in Marketing*. American Marketing Association, 85-91.
- Spreng, R. & Mackoy R., (1996). An empirical examination of a model of perceived service quality and satisfaction. *Journal of Retailing*, 72(2), 201-214. Doi: [https://doi.org/10.1016/S0022-4359\(96\)90014-7](https://doi.org/10.1016/S0022-4359(96)90014-7)
- Spreng, R.A., MacKenzie, S.B. & Olshavsky, R.W. (1996) A re-examination of the determinants of consumer satisfaction. *Journal of Marketing*, 60, 15-32.
- Stanforth, N. F., & Lennon, S. J. (1997). The effects of customer expectations and store policies on retail salesperson service, satisfaction, and patronage. *Clothing and Textiles Research Journal*, 15(2), 115-124.
- Szymanski, D. M. & Henard, D. H. (2001). Customer satisfaction: a meta-analysis of the empirical evidence. *Journal of the Academy of Marketing Science*, 29, 16-35. Doi: <https://doi.org/10.1177/009207030102900102>
- Tejedor, J., Elola, L., Ajami, M., Bosch, S. (2019). The implication of wine quality in a new model of the European Customer Satisfaction Index. *Total Quality Management & Business Excellence*, 30(2), 1-18. Doi: <https://doi.org/10.1080/14783363.2017.1355232>
- Tenenhaus, M., Vinzi, V., Chatelin Y. & Lauro, C. (2005). PLS path modelling. *Computational Statistics & Data*, 48(1), 159-205. Doi: <https://doi.org/10.1016/j.csda.2004.03.005>
- Westbrook, R.A. (1981). Source of consumer satisfaction with retail outlets. *Journal of Retailing*, 57(3), 68-85.