

IMPROVING BANK QUALITY DIMENSIONS TO INCREASE CUSTOMER SATISFACTION

Teaching Assistant Lăcrămioara RADOMIR

Babeş-Bolyai University Cluj-Napoca

Email: lacramioara.radomir@econ.ubbcluj.ro

Professor PhD Alan WILSON

University of Strathclyde Business School, Glasgow

Email: alan.wilson@strath.ac.uk

Teaching Assistant Andrei Mircea Scridon

Babeş-Bolyai University, Cluj-Napoca

Email: andrei.scridon@econ.ubbcluj.ro

Abstract:

The purpose of this study is twofold: 1. examine the relationship between service quality dimensions and customer satisfaction with bank territorial units; 2. establish which quality measure method out of the four considered in this study should be applied in order to better determine the areas that need further improvement and investment. In this respect, we performed Principal Component Regression (PCR) and considered direct importance and performance measures as well. Our results reveal that human resources have the greatest impact on customers' satisfaction with bank territorial units and that both "Convenience and Efficiency" and "Bank personnel" are the dimensions that bank management should consider in their efforts to improve and maintain the service quality level. To the best of our knowledge, this is the first study which tries to emphasize the relationship between service quality dimensions and Romanian customers' satisfaction with bank territorial units. The main limit of the study lies in the fact that data were collected among the customers of a single bank. Nevertheless, it provides valuable information about the Romanian market and ought to be considered a starting point for further studies.

Keywords: service quality, customer satisfaction, importance and performance measures, Romanian banking sector, principal component regression.

Introduction

The Romanian banking sector can now be characterized as a dynamic environment that makes it difficult for banks to grow and to maintain their market share. The growth in the number of banks has on the one hand increased competition and on the other hand heightened the standards that need to be met in order to gain a competitive advantage. In addition, the competition between banks is a premise of customers' ever growing expectations. Customers are now more informed and

they expect their banks to meet their needs when, how and where they want. Otherwise, there is the risk that a bank loses market share in favour of its competitors. Considering the above mentioned issues, one major concern of Romanian banks should be customer retention. Long-term relationships between a bank and its customers, is proof of the financial institution's efforts to offer high quality services that satisfy customers' demands. Moreover, customer retention is a necessary input for improving business performance. It

is therefore necessary that banks concentrate their efforts towards improving the quality of their services and satisfying their customers' needs. 'High service quality results in customer satisfaction' (Karatepe, Yavas et al., 2005, p. 373) which 'furthers customer loyalty' (Lenka, Suar et al., 2009, p. 47) and helps companies improve their performance (Yeung, Chew et al., 2002). Put it otherwise, high service quality leads to competitive advantage as customers feel satisfied and thus are more probable to further buy the company's services, to recommend them to others and to ignore the competitors' offer. It is therefore necessary to continuously measure service quality in order to establish those areas that need improvement. Moreover, it is important to know whether customers are satisfied with the offer and with the quality of the services in order to decide if improvements need to be made. Nevertheless, it is important to find out which are the aspects that influence customers' satisfaction most. From a bank's perspective, it is necessary to seek out the 'most influential determinants of customer satisfaction' (Lenka, Suar et al., 2009, p. 48) and to determine customers' perceptions regarding these determinants' quality level. Thus, they increase their chances to differentiate from their competitors and to retain their customers. Services may be referred to as benefits or experiences and therefore, when customers decide whether they are satisfied or not with a bank, they actually evaluate their experiences with ATMs, Internet Banking etcetera, or the experiences they have within a bank unit. Hence, we may say that service quality is an evaluation of the bank's delivery system and satisfaction refers to customers' experiences with the delivery system. We may also add that customers conduct their relationship with banks

either by visiting their territorial units or by using their electronic devices.

Our paper focuses on service quality and customers' satisfaction with bank territorial units for three important reasons, as follows: 1. the first reason is a consequence of services' intangible nature. Since services cannot be seen or touched, banks' offer can be easily copied by competitors, and their distribution channels are no exception. All the banks operating in the Romanian market allow customers to obtain money from a cash dispenser; we may hardly name a bank that does not offer its services through Internet Banking. Moreover, operations that can be performed through such devices are almost the same no matter the bank we use. Under these circumstances, modern distribution systems will no longer represent a competitive advantage. On the contrary, experiences that customers have within a bank unit are hard or even impossible to copy. While electronic devices suppose a human-machine contact and most often do not imply bank personnel, traditional distribution channels (territorial units) suppose high human contact and employees' total involvement in the client-bank relationship. In a bank unit, customers' experiences are most of all influenced by bank personnel. Employees' attitude, gestures, and even their professional experience are in our opinion impossible to precisely copy. Different authors have already studied the personnel' influence on customer overall satisfaction and found a positive relationship between the two variables (Bergeron and Laroche, 2009; Durvasula, Lysonski et al., 2004; Lympelopoulos and Chaniotakis, 2008). Moreover, given the intangible nature of services, 'customers have been found to perceive little difference between banks in terms of product offerings' (Neilson and Chadha, 2008, p. 205) and bank personnel is something that can

be seen and evaluated before buying a service or performing an operation within a bank unit. Therefore, it is our opinion that bank managers should consider this distribution channel in their efforts to differentiate from competitors and to retain customers. Improvements in bank personnel may lead to an increase in customers' level of satisfaction which furthers loyalty and increased market share. 2. The second reason lies in the increase in the number of bank units in recent years. The EFMA (European Financial Management and Marketing Association) reveals that the number of bank branches in Romania reached 4,346 in 2006. However, banks' territorial expansion continued the years that followed. In this respect, another source reveals that Florin Georgescu, First Deputy Governor of National Bank of Romania, announced during a seminar that the number of bank branches increased from December 2007 with almost 850 units, reaching in November 2008 the impressive number of 6.323 branches (Ursu, 2008). Banks' territorial expansion is a proof of their desire to be closer to their customers and to reduce the average time a customer has to wait for a service to be performed. Besides, territorial expansion helps banks to be "more present" in customers' minds and, as a result, to be perceived as powerful institutions. Moreover, in Romania, many persons still do not have access to internet, or even if they do, very few perform banking operations via Internet Banking. In addition, there still are persons that are reluctant to using ATMs or to paying with their cards at POS. Thus, the number of territorial units, their location and the comfort inside the bank unit may be important factors in appreciating a bank's services quality level as well as necessary inputs to foster penetration and increase market share. 3. The third reason would be the fact that Romanians still prefer to

conduct their business with banks through territorial units. Their preference for high human contact may be a consequence of two cultural dimensions that characterize Romania, namely collectivism and high uncertainty avoidance. While ties between persons are loose within individualistic societies, people in collectivistic cultures are more likely to give greater importance to interpersonal relationships. Therefore, banks' customers in collectivistic cultures are expected to value interpersonal relationships with bank personnel. For this reason, banks' management must acknowledge the importance of human resources and concentrate their efforts towards determining the impact that employees have on customers' satisfaction. Financial services are not only intangible but also heterogeneous which suggests that their quality level fluctuates. Thus, relationships between employees and customers that are considered trustworthy and are based on reliability and empathy are those that increase customers' satisfaction with their banks. Uncertainty avoidance dimension refers 'to the degree to which cultures try to avoid uncertain situations' (Reimann, Ulrich et al., 2008, p. 63) or put it otherwise, the degree to which members of the society try to avoid situations that are not familiar to them. This cultural dimension is a possible explanation for the Romanians' usage low rate of alternative distribution channels compared to that of other countries.

Given the services characteristics, customers perceive little difference between banking products (Ravichandran, Mani et al., 2010; Neilson and Chadha, 2008) and hence banks face the risk of losing customers in favour of competitors who may copy an offer easily. Under these circumstances, the competitive environment in which Romanian banks act, force them to consider quality a

critical aspect for their success. Services quality results in customer satisfaction which 'leads to market share and profits' (Burch, Rogers et al., 1995, p. 1) and to loyalty which is a must for long-term relationships between customers and banks. It is therefore necessary to continuously define the determinants of customer satisfaction, which of them have a greater impact, and then to decide whether improvements need to be made in order to increase their quality level or not. Bearing in mind the two cultural dimensions (low for individualism and high for uncertainty avoidance) for Romania it is expected that bank customers value interpersonal relationships with bank employees. Thus, human aspects are probable to have a greater impact on customer satisfaction than physical evidence elements and processes (expressed in terms of convenience and efficiency).

Literature review

Service quality is undoubtedly an important input for customer satisfaction which in turn influences customers' behaviour in terms of loyalty (be it expressed in customers' repurchase intentions, positive word of mouth or an increase in the number of performed banking operations), and thus enhance a bank's image and performance.

Service quality

Acknowledged as a 'critical prerequisite for establishing and sustaining satisfying relationships with valued customers' (Lassar, Manolis et al., 2000, p. 244), service quality remains, in our opinion, a concept that further needs to be scanned in order to fully understand it and to gather all the meanings attributed to this phrase by customers. Moreover, for the management to provide services of a high quality level, it is necessary to 'identify the antecedents of what the consumer perceives as service "quality"'

(Petridou, Spathis et al., 2007, p. 569). Service quality is nevertheless 'subjective and hinges on the individual perceptions of customers' (Schneider and White, 2004, p. 10) which is an explanation for the high number of definitions attributed to service quality. Among them, the most cited or the one from which derive many other definitions is that offered by Zeithaml and Parasuraman. According to them, service quality is 'the difference between customers' expectations of service and their perceptions of actual service performance' (Zeithaml and Parasuraman, 2004, p. xi). In line with this definition, 'service quality is the difference between customers' expectation and performance of the service actually delivered' (Lenka, Suar et al., 2009, p. 48) or 'is determined by the differences between customers' expectations of service provider's performance and their evaluation of the services they received' (Mohammed and Mohammad, 2003, p. 1). These definitions have two key common words, namely expectation and performance which leads us to the conclusion that customers have certain expectations regarding their experience with a service provider, and based on these expectations evaluates the quality level of the services they receive. However, other authors point out that service quality definitions include phrases such as 'conformance to requirements', 'fitness of use' and emphasize that customers evaluate the outcome and the manner in which a service is delivered (Eisingerich and Bell, 2008; Jain and Gupta, 2004) and that it is 'the overall evaluation of a firm's service delivery system' (Lenka, Suar et al., 2009, p. 50). In the light of the above mentioned, bank service quality is a critical prerequisite for establishing and maintaining satisfying relationships with customers. Bank customers evaluate the services they are offered by comparing their

expectations with the bank's performance in terms of the service delivery system. The definition we offered is in our opinion in accordance with our paper's objectives. Since 'service quality is a multidimensional attitude held by consumers, with each dimension comprising of a number of attributes or service aspects' (Schembri and Sandberg, 2002, p. 190) and bearing in mind the fact that we consider the direct contact that exists between customers and bank employees within territorial bank units, service quality is by no means a judgment of several aspects referring to human interactions such as appearance, communication skills, trust. In addition, service quality must be understood as the quality of those aspects referring to the comfort one has when performing banking transactions within territorial units and as the quality of the physical aspects such as parking and waiting areas, offices' placement and so on.

According to Zeithaml and Parasuraman, (2004), the measurement of service quality should be done with the purpose to identify the gaps between expectations and perceptions or the shortfalls in customers' perceptions of services' performance. In this respect they developed the SERVQUAL model, an approach that supposes the measurement of expectations and perceptions on five dimensions as follows: Assurance, Empathy, Reliability, Responsiveness and Tangibles. The SERVQUAL model is 'probably the best-known, universal scale designed to measure the perceived service quality' (Bahia and Nantel, 2000, p. 84). Another model that has been proved valuable, although not applied at the same extent as SERVQUAL, is Technical/Functional Quality model. According to Grönroos, technical quality refers to the outcome, to what is being offered while functional quality considers the way a service is

provided (Lassar, Manolis et al., 2000) and is considered more important than technical quality (Burch, Rogers et al., 1995; Ennew and Binks, 1996). The six dimensions proposed by Grönroos in 1990 are similar to those considered in the SERVQUAL model and focus essentially on the functional issues, namely Professionalism and Skills, Attitudes and Behaviours, Accessibility and Flexibility, Reliability and Trustworthiness, Recovery and Reputation and Credibility (Schneider and White, 2004). Another quality model that has captured attention is the one developed by Cronin and Taylor in 1992-SERVPERF. Actually, the SERVPERF scale is similar to SERVQUAL with the only exception that it only captures performance measures and does not consider expectations. Authors' opinion is that the difference between expectations and performance could be confusing and lead to misunderstanding regarding the difference between quality and satisfaction. Since now, 'much of the empirical research supported performance based measures of service quality' (Ravichandran, Mani et al., 2010, p. 118). The higher the perceived performance the higher the quality level (Jain and Gupta, 2004). The SERVPERF model or scale has a more explanatory power than SERVQUAL (Jain and Gupta, 2004; Ravichandran, Mani et al., 2010) and besides considers a lower number of items (Jain and Gupta, 2004) which certainly simplifies the data gathering problems.

To sum up, we must add that most of the quality dimensions in all cases refer to personnel attributes and to interpersonal interaction. This could be explained by the fact that most often services cannot be entirely separated from the provider and hence customers find themselves in the same place with a firm's employees. Therefore, 'the nature of the interaction between service providers and customers (i.e.,

functional quality) are key contributors to customers' evaluations of the overall service offering' (Eisingerich and Bell, 2008, p. 257) and thus, bank service quality (considering the customer-bank relation within territorial units) can be assessed in terms of direct contact with personnel, processes (expressed through convenience and efficiency) and physical evidence.

Satisfaction

Although confusion still exists between the two concepts (service quality and satisfaction), several authors have managed to highlight the distinction between them. Thus, 'service quality is the managerial delivery of services while satisfaction is customers' experiences with those services' (Lenka, Suar et al., 2009, p. 50) and is considered a consequence of service quality (Lassar, Manolis et al., 2000; Mohammed and Mohammad, 2003; Reimann, Ulrich et al., 2008). Other authors consider that 'service quality is a consumer's judgment about the service itself, while satisfaction is more a judgment of how the service emotionally affects the consumer' (Schneider and White, 2004, p. 51). This assertion has its grounds in the belief that customers need to experience a service in order to decide whether satisfied or not, but can make quality judgments in the absence of an experience with the service. In line with the above mentioned, Johnson and Gustafsson (2000, p. 63) point out that service 'attributes provide customers with benefits and the benefits derive overall satisfaction'. This idea could be extended and say that the higher the benefits are perceived by customers, the higher the satisfaction level. Other authors are of the opinion that 'customers' satisfaction is a combination of their cognitive and affective response to service encounters' (Lenka, Suar et al., 2009, p. 50) and others refer to channel satisfaction which is defined as

'the customer satisfaction with the experience of dealing with any given channel individually' (Madaleno, Wilson et al., 2007, p. 917). Thus, we may say that bank customer satisfaction is a positive emotional state that results due to a positive interaction experience. Considering the interaction within bank units, we must add that satisfaction is a result of positive interactions with bank personnel, with physical evidence and of customers' perceptions about the attributes referring to processes which provide customers with the comfort and efficiency benefits. On the other hand, machine service quality attributes (non-human delivery systems), may include aspects referring to the quantity and quality of the information, to the ease of use, system security etcetera. However, most financial services require considerable customer contact (Chebat and Kollias, 2000) and as highlighted in previous studies, traditional services quality factors are very important in banks' attempt to satisfy their customers (Al-hawari, 2008). Therefore, we consider that bank management should pay attention to the human component of service quality. 'Personnel-related characteristics are keys in helping to achieve customer satisfaction' (Neilson and Chadha, 2008, p. 208) as they reduce the number of barriers which may affect customers' trust in the financial institution. Bank personnel must demonstrate professional knowledge in their interaction and communication skills. Unless customers understand the terms used by bank employees, the information they receive is not considered valuable and cannot be convinced to end the buying process. Therefore, bank personnel must realize that 'communication is thought to play an important role in the service delivery process' (Lassar, Manolis et al., 2000, p. 249) and try to use the appropriate terms so as to inspire trust and confidence. Moreover, bank personnel must prove interest and

concern for customers' needs and offer them support when they encounter different problems. In their interaction with customers, employees must first listen to customers needs and not to be aggressive sellers. Their major interest should be trust gaining and not an increase in sells. The importance of personnel and of customer trust in personnel and in the bank is given by services characteristics. Financial services are intangible, and most important, they imply customers' financial resources. Besides, financial services are bought with a low frequency and suppose a long term relationship between customers and their banks. In addition, many customers do not have the necessary "bank culture" and even when the services they want to buy are at a low complexity level they find it difficult to make decisions all by themselves. Hence, they usually rely on the advice offered by a bank employee when judging a service's performance and 'the more limited the customers understanding of financial services, the greater the dependence on a financial services provider or a financial adviser' (Ennew and Sekhon, 2007, p. 63). Bank employees have critical role due to the interactive nature of service delivery process (Wilson and Frimpong, 2004). Therefore, we may assert that personnel-related characteristics are key factors that can enhance or decrease customers' satisfaction level with services. Satisfied customers will continue the relationship with their trustworthy financial advisor and will share their positive experience with the bank to other persons. Given its potential to reduce the perceived financial risk, trust has a major role in client-bank relationship and is explicit in customers' willingness to rely on bank's personnel advice in their buying process (Moorman, Zaltman et al., 1992). Bank physical evidence includes all tangible elements that are attached to services.

Examples in this respect would be physical facilities, the equipment used in order to perform a service, personnel and visible communication materials (Zeithaml and Parasuraman, 2004) such as signs, the brand, logos, brochures that describe and create an image for the promised services, documents that certify the acquisition of a particular service, direction indicators etcetera. This dimension is considered an important component of the marketing mix due to services intangible nature, which makes it impossible for customers to see or touch what they buy and even difficult to appreciate the services' value before purchase and consumption. Physical evidence become even more important in the banking sector (Parasuraman, Zeithaml et al., 1988) where services are hard to measure and customers can get an idea about the quality of services based on the elements they can see. Romanian customers, as already pointed out, still prefer to visit banks' territorial units. When customers interact with bank employees they must involve themselves in the delivery process. Therefore, of great importance are the bank's location, park places as well as the interior and exterior layout of the bank. Customers expect to feel comfortable within the bank unit and thus pay attention to the physical layout of equipment and other furnishings (Mohammed and Mohammad, 2003). Of great importance become the waiting areas and those where customers can sit to fill in the forms as well as the counters' and offices' arrangement which should ensure the flow of operations. Another important attribute that customers take into consideration when visiting a bank is cleanliness, as it has a great impact on the general atmosphere inside the bank unit. Maybe one of the most important physical evidence in the banking sector is the bank itself. Unlike the "old bank branches", that had an austere

appearance or size, “the new, modern bank branches” are more welcoming, with bright interior and with transparent windows denoting friendliness. The place where customers meet the service provider is of high importance in the perceived service quality (Ballantyne, Christopher et al., 1995) as they take into consideration all physical evidences and infer the bank’s and its services’ performance (Lenka, Suar et al., 2009). Thus, we agree to the statement that banks’ physical evidences influence customer satisfaction with the bank and its services (Neilson and Chadha, 2008). Processes as a component of the marketing mix refer to those steps that need to be taken in order to obtain a service, and are highly connected to the distribution component of the marketing mix. If considering those situations when customers ask for services inside the bank, through direct contact with bank personnel, the first step that needs to be taken is visiting the bank unit. A bank service, usually suppose several intangible activities and now, due to the advances in technology a customer may decide to perform alone different banking operations after having bought a service. Often, however, customers decide to visit territorial units and involve in the delivery process along with bank employees. In this case, important factors in their evaluation are *promptness in service delivery* which means that customers expect to receive a service in a reasonable amount of time. Time is now a resource that customers value and therefore they care if the bank unit is crowded or not and if all counters in the unit are opened when necessary. The importance of promptness in service delivery is a consequence of customers’ interest in the convenience benefit and of their value of time (Berry, Seiders et al., 2002). In addition, when deciding to visit a bank unit, customers expect to find one in their proximity. Thus, units’

location is of high importance when customers prefer direct contact with bank employees. Another important issue refers to the bank work program. If years ago the program with customers used to end at 15:30, now most of them allow customers to enter the unit till 18:00 and even 22:00. Given the influence that these attributes have on customers’ perceptions of service quality, the bank management needs to permanently adapt the distribution processes to customers’ preferences.

Although distinct, service quality and customer satisfaction are two related constructs and questions have arisen whether quality judgments lead to satisfaction judgments or vice versa. Several studies prove that there is an agreement on this very issue: ‘quality judgments cause satisfaction’ (Schneider and White, 2004, p. 52) and ‘service quality is an important indicator of customer satisfaction’ (Mohammed and Mohammad, 2003, p. 1).

The main objective of this study is to determine the impact that certain service attributes have on customer satisfaction and with the help of the results to establish which are those service attributes and benefits that need to be given most attention by bank management in order to increase the satisfaction level. Besides, we want to verify whether results based on weighted quality measurements and on the gap between performance and importance are similar to those based on impact measures.

Data collection and research methodology

The necessary data were collected through direct investigation of Ro Bank’s customers, with the use of a research questionnaire which was administrated in the area of Cluj-Napoca. In order to formulate a final questionnaire, we conducted a pilot survey with two bank representatives and 25 customers who offered

responses to questionnaires in five of the bank's main units. After data validation 618 questionnaires were considered out of 650 that had been distributed to gather information (we excluded 32 questionnaires due to the lack of answers to more than 30% of the questions). Our decision to collect data in the area of Cluj-Napoca was supported by the fact that Ro Bank was first intended to be a local bank and a Cluj brand. Moreover, Ro Bank is one of the most important banks in Romania (ranked among the first five banks in the country), conducting its activities at a national level. It is also known as The Bank of Cluj and one of each two persons living here is its customer.

Derived importance measures (impact measures)

The impact measures method is based on the idea that statistical estimations for attribute importance are less biased and more objective. Statistically derived from attribute performance ratings, importance estimations allow us to determine the impact that different quality dimensions or aspects have on satisfaction (Johnson and Gustafsson, 2000). Then, based on these results, one can make suggestions for quality improvement in order to increase customers' satisfaction level.

Proposed model:

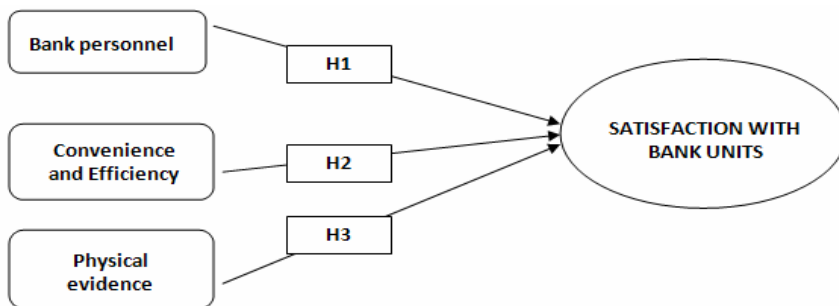


Figure 1. A quality-satisfaction model for bank territorial units

Bearing in mind that we considered the direct contact between customers and bank employees within territorial units and based on different studies in the field, we assumed that the quality dimensions that need to be considered are “Bank personnel”, “Convenience and Efficiency” and “Physical evidence”. Hence, we set the following three assumptions:

H1: Human resources (“Bank personnel” Dimension) have a positive impact on customer satisfaction with bank units

H2: Convenience and Efficiency (“Convenience and Efficiency”

Dimension) has a positive impact on customer satisfaction with bank units

H3: Tangible aspects (“Physical evidence” Dimension) have a positive impact on customer satisfaction with bank units

We next assumed that given the high scores obtained by Romania for the *collectivism* and *uncertainty avoidance* cultural dimensions, it is expected that the human resources have the highest impact on customers' satisfaction with bank territorial units, followed by “Convenience and Efficiency” and tangible aspects, respectively.

H4: “Bank personnel” Dimension has a greater impact on customer satisfaction with bank units than “Convenience and Efficiency” Dimension

H5: “Convenience and Efficiency” Dimension has a greater impact on customer satisfaction with bank units than “Physical evidence” Dimension

In order to determine the level of service quality, 22 statements were considered. The statements refer to attributes that customers consider when they evaluate a bank. Attributes’ performance was measured on a five point Likert scale. Respondents were asked to express their disagreement or agreement with given statements on a five point scale with 1 meaning *Total Disagreement* and 5 meaning *Total Agreement*.

Satisfaction with Ro Bank territorial units was measured on a single item scale. Customers ranked their satisfaction level on a five point scale where 1 means *Not at all Satisfied* and 5 means *Very Satisfied*.

In order to be able to apply PCR (Principal Component Regression) analysis to determine the impact that the three dimensions have on customers’ satisfaction with territorial units, we first created the three latent variables*¹ that are next used in the proposed regression model. For this purpose, we conducted three PCA (Principal Component Analysis). The first one analyzed 11 subdimensions referring to bank employees, the second analyzed 5 subdimensions referring to convenience and efficiency and the last one 6 measures for tangible aspects. At this step we saved the first component in each of the three analyses as new variables in the data set. Prior to using these new

dimensions in our regression analysis, the latent variables were evaluated. We first observed the Eigenvalues from each PCA. At best, for each analysis should be obtained just one Eigenvalue above 1 whereas, the others are below (Johnson and Gustafsson, 2000). In our case, for the “Convenience and Efficiency” dimension two Eigenvalues exceeded 1 and we therefore studied the factor loading of each subdimension in the “Convenience and Efficiency” latent variable and observed that one item (“The unit is usually uncrowded”) loading was only 0.41. We therefore decided to drop it and run another PCA for the “Convenience and Efficiency” dimension. The new latent variable had only one Eigenvalue above 1 and the rest were below. In addition, the total variance explained increased. Thus, we decided to save the first component of this last PCA as a new variable to use in the regression model. Next, we checked the correlations among the three latent variables. For PCR to work well, correlations between any two latent variables should not be above 0.7 (Johnson and Gustafsson, 2000). In our case, the highest correlation coefficient was 0.587. The subdimensions of each latent variable are available in Appendix 1. Internal consistency was verified with the help of Cronbach Alpha coefficient. According to Hair, Anderson, Tatham, and Black (1998), Cronbach Alpha coefficient should exceed 0.6 (as cited in Hanudin, 2007) or 0.7 (Kholoud, 2009). Besides, we studied the correlation matrix and no correlation above 0.9 was found - value which is considered a sign of multicollinearity (Kholoud, 2009). Table 1 presents the Cronbach Alpha coefficients obtained for each latent variable/dimension.

* A latent variable is an abstract construct obtained with the help of multiple concrete subdimensions (*Source:* Johnson and Gustafsson, 2000)

Table 1

Latent variable internal consistency

Dimension	Cronbach Alpha coefficient
Bank personnel	0.902
Convenience and Efficiency	0.484
Physical evidence	0.733

As one can see, the Cronbach Alpha coefficient obtained for the “Convenience and Efficiency” dimension is far below 0.6. However, even if it did not exceed the threshold value, we considered the items in this dimension very important. Customers pay attention to those aspects that offer them the comfort they expect, as well as to those relating to the time they have to spend within a bank unit in order to perform banking operations. Moreover, the results we obtained with PCA indicated that four items could be combined to form this new variable. Hence, the three dimensions (“Bank personnel”, “Convenience and Efficiency” and “Physical evidence”) were used to perform a regression analysis with “Satisfaction with bank units” the dependent variable. The Adjusted R Square obtained for our model is 0.3560 and the significance value of the F statistic is less than 0.05 (F = 114.6882464, Sig. = 0.000), which means that the variation explained by the model is not due to chance. Moreover, for each latent variable the significance value was lower than 0.05 (in each case, Sig. = 0.000), which indicates that there is a strong relationship between each independent variable and the dependent one (See results in Appendix 2). Hence, **H1**, **H2** and **H3** are supported.

In order to establish the impact that each dimension has on the dependant variable, we checked the Standardized Coefficients (see Appendix 2). The impacts of “Bank

personnel”, “Convenience and Efficiency” and “Physical evidence” on customers’ satisfaction with bank territorial units are 0.352, 0.200 and 0.153 respectively. Therefore, we may conclude that assumptions **H4** and **H5** are supported, which means that “Bank personnel” dimension has the highest impact and “Physical evidence” dimension the lowest. **Obs.:** Results are valid on ceteris paribus conditions.

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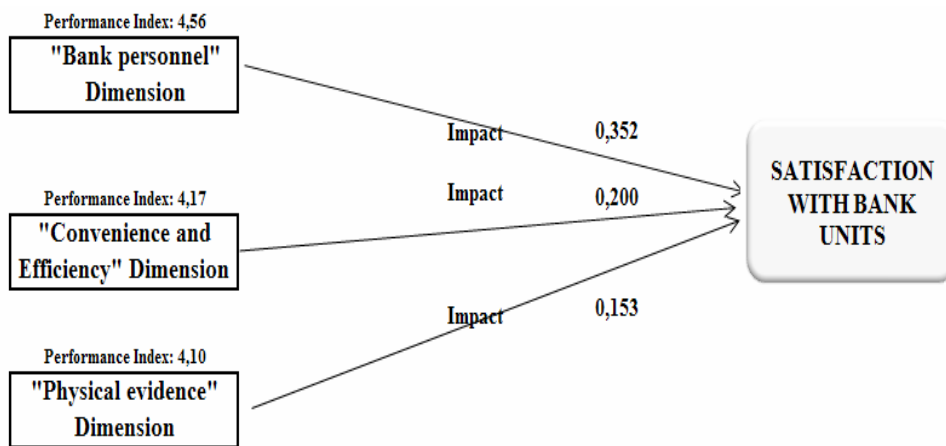


Figure 2. A quality-satisfaction model for Ro Bank territorial units

The high impact that the “Bank personnel” dimension has on satisfaction is a proof that Romanian bank customers’ satisfaction is influenced to a high extent by their interpersonal relationships with bank employees. When customers visit a bank unit, bank employees are part of the service they buy and therefore, we may say that human resources contribute most to customers’ satisfaction with a bank’s territorial units. Bank personnel must prove expertise (See Appendix 1: BP1, BP6) in their interactions with customers. They must be well trained to be able to offer the necessary information and to be flexible in offering solutions to customers’ needs. In addition, they must have communication skills. In vain do they possess professional skills unless they adapt their vocabulary to

that of their customers’. Due to their intangible nature, bank services are hard to evaluate and appreciate prior to buying and using them. Moreover, many customers do not have the necessary knowledge to understand the costs that bank services have. Therefore, if they perceive that bank employees clearly explain the costs of services they ask for, they will feel satisfied with the experience of buying financial services. Hence, information communication (See Appendix 1: BP2, BP7) is a characteristic that bank management should try to improve in order to increase customers’ satisfaction. In addition, bank employees must encourage customers to ask further questions whenever necessary (See Appendix 1: BP5). Bank employees must also be perceived as trustworthy (See Appendix 1: BP3, BP4). Trust in a

partner is an important input for long term relationships. Nevertheless, bank employees must prove empathy and courtesy (See Appendix 1: BP8, BP9, BP10, BP11). They must be sensitive to customers needs and listen to them before offering a service. They should not create the impression that they are superficial but instead pay attention to details in order fully understand customers' financial needs. Moreover, it is important to give customers enough time to analyze the information obtained and to have a friendly attitude in order to increase their satisfaction. Given the high impact that "Bank personnel" dimension has on customers' satisfaction, we suggest that bank management further invest in the

human resource to maintain its performance. This dimension has a high performance (4.56) which suggests that bank employees meet customers' expectations. However, further investment in this direction is necessary. If they will not perform the same in the future, customers' satisfaction with Ro Bank territorial units is expected to decrease which will negatively affect bank's performance. Based on the scores obtained for the three dimensions' impact and performance, we can analyze the impact performance chart, which is a useful tool for a quick overview and for an easy understanding of the bank's situation.

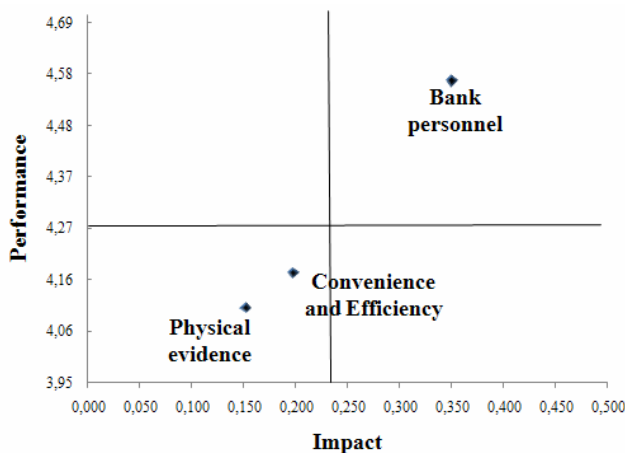


Figure 3. Impact-Performance matrix

Out of the three quality dimensions, only "Bank personnel" has a high performance and a high impact on customers' satisfaction, while "Convenience and Efficiency" and "Physical evidence" are low both in performance and impact. Therefore, one may be tempted to say that further investment in their direction is not necessary. Such an interpretation would certainly be wrong since the impact of "Convenience and Efficiency" is very close to the mid value of 0.235. Thus,

we suggest that bank management should also concentrate the efforts towards improving the "Convenience and Efficiency" dimension. Its impact on satisfaction is rather high and therefore it is important that customers perceive its performance to be higher. **Obs.:** Axes cross in empirical means for performance and impact.

Apart from studying the impact and the performance of certain dimensions on customers' satisfaction, PCR has the advantage of allowing the management

to have a deeper insight and to analyze the impact of each subdimension as well as to compare subdimensions' performance with their impact. For this purpose, we calculated the impact and performance for each attribute included in the "Bank personnel", "Convenience and Efficiency" and "Physical evidence" dimension, respectively (See Appendix 3). Thus, we may focus now on the attribute impacts and those attributes which have the highest impact on the dimension they are part of, should be carefully considered by the bank management. For example, attributes referring to human resources quality that have the greatest impacts on the "Bank personnel" dimension are BP6 (0.215), BP2 (0.205) and BP1 (0.203), respectively. All of these attributes are high in performance (their performance score is higher than the grand mean of 4.56) which indicates that the bank management does not need to concentrate their efforts towards their improvement. However, BP6 has a relatively low performance score compared to other attributes in the "Bank personnel", while its impact on this dimension is the highest. Therefore, it is important that bank management try to maintain or even improve this attribute's performance. Another attribute that should be paid attention is BP11. This attribute has a relatively high impact on satisfaction and a rather low performance score compared to the grand mean. This means that is important that bank employees try to pay more attention to details when interacting with customers. CE2 has the highest impact on the "Convenience and Efficiency" dimension which means that this attribute influence most its performance. However, CE2 performance is only 4.29, above grand mean of 3.917, but could be further improved. Indeed, customers expect not to spend too long time in order to talk to a bank employee and the bank management should try to find a way to

reduce the time spent in this purpose when possible. We can also notice that the attribute with the lowest performance score is CE4. Although this attribute has a very low impact on the "Convenience and Efficiency" dimension, we appreciate that it is important to simplify the procedures involved in the buying process and to reduce their number. The "Physical evidence" dimension has the lowest performance (4.10). This is due, in part, to its attributes' low performance scores. PE1 and PE3 are far below the grand mean of 4.00 and PE2 and PE4 are relatively low in performance (just above the grand mean). In addition, we must point out that PE2 and PE4 are high impact scores which means that bank management should try to rearrange the bank interior in order to offer clients enough space where to fill in the documents as well as to ensure confidentiality when customers communicate with bank employees. PE3's impact is rather high (very close to the empirical mean of 0.262) and rather low in performance. As we can see, this attribute refers to waiting areas that should exist in each bank unit in order to offer customers the comfort they expect. It is now important to mention that Ro Bank has 36 bank units Cluj-Napoca city, being the bank with the largest network in this town. Actually, it has at least two units in each city district and in order to be close to its customers and at the same time to be able to face the costs, the management decided to rent both large and small areas for their bank units.

Given the possibility to have a deep insight both in the dimensions' and attributes' impact and performance scores in order to make suggestions for further improvement, we appreciate it useful to determine the impact scores that certain quality dimensions have on customers' satisfaction and to study their performance in order to set the steps that need to be followed.

Direct importance measures

Other 2 methods that the bank management could use in order to determine those areas that need improvement would be to rank quality dimensions based on their Importance*Performance (Imp.*Perf.) score or based on the gap score between performance and importance (Perf.-Imp.). The importance of a certain quality dimension may “differ across different types of services” (Jain and Gupta, 2004, p. 29) and thus it is necessary to find out whether customers pay more or less attention to certain aspects when they evaluate a bank.

As discussed in the previous subsection, performance was measured for each attribute separately, on a five point Likert scale. Based on these ratings, we calculated the performance scores for the three service quality dimensions, namely “Bank personnel”

(4.56), “Convenience and Efficiency” (4.17) and “Physical evidence” (4.10). As for the importance we decided to ask respondents to rate the importance they give to the three dimensions on a five point scale where 1 means *Not at all important* and 5 means *Very Important*. We collected the importance weights at a service dimension and not at an attribute level in order to reduce the length of the questionnaire and to report the results in a simple manner (Hill, Self, and Roche, 2002). We also decided to use direct scale rating based on the assumption that this method of direct measurement is a less biased one. Nevertheless, it is considered that customers usually appreciate everything as important (Johnson and Gustafsson, 2000; Gustafsson and Johnson, 2004).

Our results indicate that the most important dimension is “Bank personnel”, followed by “Convenience and Efficiency” and “Physical evidence” respectively.

Table 2

Importance and Performance measures

	Importance	Performance	Imp.* Perf.	Priority	Perf.- Imp.	Priority
Bank personnel	4,53	4,56	20,67	3	0,03	2
Physical evidence	3,93	4,00	15,72	1	0,07	3
Convenience and Efficiency	4,51	3,92	17,67	2	-0,59	1
Empirical mean	4,32	4,16				

The data in Table 2 enable us to appreciate each dimension from an importance-performance perspective, as follows: “Bank personnel” dimension is high both in importance and performance (columns 2 and 3 in Table 2: importance and performance scores are above the empirical mean); “Physical evidence” dimension is low both in importance and performance (importance and performance scores are below the empirical mean), and “Convenience and Efficiency” dimension

is high in importance but low in performance. With the help of this information, bank management can conclude that immediate attention should be given to the “Convenience and Efficiency” dimension and further investment should be directed towards its improvement. Moreover, if there are enough resources, the management should also consider the “Bank personnel” dimension, as its importance and performance scores are very close one to another.

Another way to decide which areas should be improved is to multiply performance scores by importance scores and use the results to set priorities. Our data obtained after applying this method (columns 4 and 5 in Table 2) indicate that the bank management should first invest in the tangible aspects of service quality and only afterwards consider the “Convenience and Efficiency” dimension followed by “Bank personnel”.

A third proposed method for the same purpose consists in calculating the difference between perceived performance and perceived importance and in plotting both performance and importance in order to examine the gap between them. The gap model presents the advantage that it is “relatively easy to implement, analyze, and explain” (Johnson and Gustafsson, 2000).

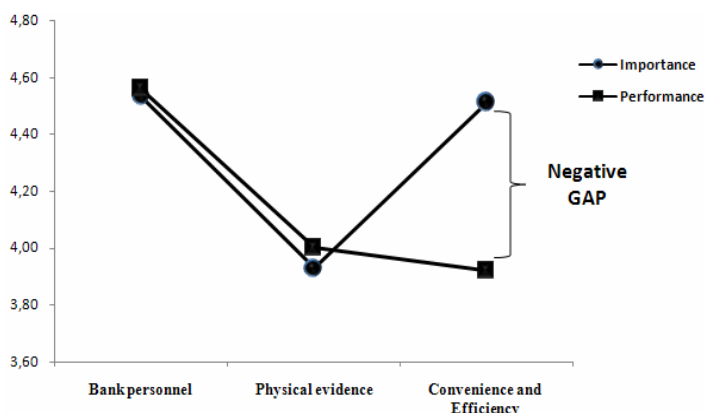


Figure 4. The Gap model

As one can easily observe in the figure above, there is a negative gap for the “Convenience and Efficiency” dimension which indicates that the bank management should immediately make decisions in order to improve this quality dimension. Besides, studying the data in Table 2 (columns 6 and 7), we see that the next lowest difference between performance and importance is obtained for the “Bank personnel” dimension (0.03) followed by “Physical evidence” dimension (0.07). Therefore, the bank management should next consider these two dimensions in the indicated order.

Comparing these methods which involve direct importance measures, we are of the opinion that the first and the third better reveal the areas that need further improvement. Unlike these two methods, the second one leads to a different priority order, placing the “Physical evidence” dimension on the

first position. If the bank management decides to improve this quality dimension first, it could later realize that such an investment is nothing but a waste of resources. The low Imp.*Perf. score is a consequence of the low ratings obtained for the dimension’s importance and not performance. Moreover, the results of the first and third methods are more appropriate to that obtained when using impact scores.

Conclusions and managerial implications

Both practitioners and academics measure service quality and try to identify those areas that need improvement in order to gain a competitive advantage. Therefore, our study makes an attempt to compare different methods that help bank managers to decide upon those service quality aspects that need improvement

and further investment. In addition, we examined the relationship between three service quality dimensions and customers' satisfaction with Ro Bank territorial units and tried to identify which dimension has the highest impact on customers' satisfaction. For this purpose, we proposed four possibilities, one based on derived importance measures (impact measures) and three based on direct importance measures. Our findings suggest that impact measures, importance-performance perspective (as in IPA) and the gap method (performance-importance) lead to similar conclusions and better highlight the areas that need improvement. Moreover, our results indicate strong positive relationships between the three considered quality dimensions and customers' satisfaction with the bank territorial units. In addition, we found that the human resources influence customers' satisfaction with the bank territorial units more than the "Convenience and Efficiency" and "Physical evidence" dimensions. These results were predictable because of Romania's high scores for the collectivism and uncertainty avoidance cultural dimensions, and because of Romanian customers' preference for traditional distribution channels to those that involve technology.

This research is of significant importance for bank managers. Based on the obtained results one can identify the areas that need immediate attention and make suggestions for further improvement. Given the high impact that "Bank personnel" dimension has on customers' satisfaction, the bank management must ensure the continuity and even improvement of employees' performance. Moreover, it is important to immediately invest in the "Convenience and Efficiency" dimension, given the gap existing between its performance score and the score for importance. In this respect,

efforts should be made for example to simplify the procedures and to open all counters in a unit when necessary. Thus, the waiting time decreases which will positively affect customers' satisfaction. Understanding and meeting customers' requirements is the key to a competitive advantage and long term success in a highly competitive environment.

Limitations and further research suggestions

One important limitation of our study lies in the fact that the data were collected in a single urban city and among the customers of a single bank. Nevertheless, it is important to mention that people living in the suburban or rural areas near Cluj-Napoca come in this town to work, and thus, part of our sample gathered a significant number of persons in this segment. Moreover, Cluj-Napoca is the financial centre of Transylvania and an important commercial city and attracts persons from all over the county. A second limitation refers to people's reluctance and refusal to answer to the questionnaire. Such situations are difficult or even impossible to avoid given the limited free time that people have. Thus, our sample was comprised of many young persons and a relatively high percentage of persons aging over 55, persons who usually have much free time to spend for such activities. The third limitation refers to the low percentage of variation explained for customer satisfaction in our quality-satisfaction model. This result may be due to the fact that we did not consider other aspects that customers pay attention to when appreciating the bank services' quality level. In order to improve our model, we should next conduct a qualitative research to determine the quality factors from the Romanian bank customers' point of view. Nevertheless, we attempted to determine the impact that different

service quality attributes have on Ro Bank customers' satisfaction with the bank's territorial units, which, to the best of our knowledge, has not been done so far. However, in our opinion, the mentioned drawbacks of the present study suggest directions for further

research. We consider that it would be interesting to conduct a more extensive research and to test the same assumptions for a sample that is representative for the Romanian banking market, or at least for the first five banks operating on this market.

Acknowledgements

The authors appreciate Ro Bank representatives their help and useful suggestions.

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- www.mcsi.ro

Appendix 1 – Service quality dimensions

Dimensions	Statements	
Bank personnel	BP1	Bank personnel are well trained and provide necessary information
	BP2	Bank personnel use appropriate terms when addressing customers
	BP3	Information provided by bank personnel is always correct
	BP4	Bank personnel keep customers' personal and financial data confidential
	BP5	If there is any doubt, the bank personnel encourage customers to ask further questions
	BP6	Bank personnel have a professional attitude and are flexible in providing solutions to customer needs
	BP7	Bank personnel clearly explain the cost of services
	BP8	Bank personnel have a friendly attitude
	BP9	Bank personnel listen customers' needs and strive to offer the best solutions to meet them
	BP10	Bank personnel are not aggressive in selling services and allow customers enough time to evaluate the conditions under which they may benefit from a service
	BP11	Bank personnel pay attention to details when interacting with customer
Convenience and Efficiency	CE1	The work program of the bank unit I usually visit is convenient
	CE2	The necessary waiting time to get in touch with an employee is always acceptable
	CE3	Usually, all counters in the unit are open
	CE4	Procedures involved in buying services do not require a long time
Physical evidence	PE1	The unit has enough reserved parking spaces
	PE2	The unit has a special space arranged for filling in documents
	PE3	The unit has a waiting area
	PE4	The way office desks are arranged, ensure confidentiality
	PE5	There are easily visible direction indicators inside the unit
	PE6	The unit interior is always clean

Appendix 2 – Regression analysis results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,5993	0,3591	0,3560	0,4899

a Predictors: (Constant), "Bank personnel" Dimension, "Physical evidence" Dimension, "Convenience and Efficiency" Dimension

ANOVA(b)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82,56846992	3	27,52282331	114,6882464	0,000
	Residual	147,3473877	614	0,239979459		
	Total	229,9158576	617			

a Predictors: (Constant), "Bank personnel" Dimension, "Physical evidence" Dimension, "Convenience and Efficiency" Dimension

b Dependent Variable: Satisfaction with bank unit

Coefficients(a)						
Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,530744337	0,019705742		229,9200044	0
	"Convenience and Efficiency" Dimension ***	0,121859613	0,025741359	0,200	4,734000761	0,000
	"Physical evidence" Dimension ***	0,093633155	0,024852586	0,153	3,76754181	0,000
	"Bank personnel" Dimension ***	0,214812085	0,025434569	0,352	8,445674445	0,000

a Dependent Variable: Satisfaction with bank unit

Remark: ***-significant at a level of 1%.

Appendix 3 – Attributes' and Dimensions' Impact and Performance

Survey Item	Attribute label	Attribute impact	Attribute performance	Dimension impact	Dimension performance
"Bank personnel" Dimension				0,352	4,56
BP1	Bank personnel are well trained and provide necessary information	0,203	4,64		
BP2	Bank personnel use appropriate terms when addressing customers	0,205	4,67		
BP3	Information provided by bank personnel is always correct	0,169	4,50		
BP4	Bank personnel keep customers' personal and financial data confidential	0,139	4,66		
BP5	If there is any doubt, the bank personnel encourage customers to ask further questions	0,151	4,40		
BP6	Bank personnel have a professional attitude and are flexible in providing solutions to customer needs	0,215	4,61		
BP7	Bank personnel clearly explain the cost of services	0,140	4,36		
BP8	Bank personnel have a friendly attitude	0,191	4,62		
BP9	Bank personnel listen customers' needs and strive to offer the best solutions to meet them	0,201	4,55		
BP10	Bank personnel are not aggressive in selling services and allow customers enough time to evaluate the conditions under which they may benefit from a	0,167	4,63		
BP11	Bank personnel pay attention to details when interacting with customer	0,176	4,48		
"Convenience and Efficiency" Dimension				0,200	4,17
CE1	The work program of the bank unit I usually visit is convenient	0,472	4,40		
CE2	The necessary waiting time to get in touch with an employee is always acceptable	0,563	4,29		
CE3	Usually, all counters in the unit are open	0,447	4,24		
CE4	Procedures involved in buying services do not require a long time	0,142	2,74		
"Physical evidence" Dimension				0,153	4,10
PE1	The unit has enough reserved parking spaces	0,159	3,09		
PE2	The unit has a special space arranged for filling in documents	0,296	4,06		
PE3	The unit has a waiting area	0,258	3,83		
PE4	The way office desks are arranged, ensure confidentiality	0,271	4,09		
PE5	There are easily visible direction indicators inside the unit	0,241	4,14		
PE6	The unit interior is always clean	0,349	4,77		

Attribute performance = attribute mean

Attribute impact = PCA factor score coefficients/attribute standard deviation

Benefit performance = $\sum (\text{Attribute impact} \times \text{Attribute performance}) / \sum \text{Attribute impact}$

Benefit impact = beta coefficients obtained from regressing the benefit indices against satisfaction