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# Quality evaluation of banking services for development of e-banking in Libya

**Rahman Ullah\*, Yasir Kamal and Usman Ghani**

Research Scholar Institute of Management Sciences Peshawar, Pakistan.

The aim of this paper is the theoretical and practical analysis of banking services quality evaluation, for development of e-banking in Libya. E-banking is one of the basic concepts of modern banking services and this approach improves quality of banking and a differential advantage which leads a bank to a better position on market place in competitive environment. Success of e-marketing lies in researching what drives consumers and opportunity to fulfill those needs and wishes in ways so that consumers will be satisfied with banking services for a long time period. In Libya e-marketing and e-banking are new approaches which banks need to accept, according to banking changes in world market place. This paper presents contributions to the development of these approaches in the banking sector in Libya. The study evaluates and analyzes the level of quality of banking services, by applying the theory of the gap using a model SERVQUAL. This will contribute to ensuring an information base that will help implementation of e-banking in departments of commercial banks in Libya. This will improve the quality of banking services in this country.

**Key words:** Quality of banking services, e-marketing, e-banking, SERVQUAL model.

## INTRODUCTION

This paper presents considerable research in the area of banking services quality evaluation for development of e-banking in Libya. The paper highlights gaps between consumers' expectations and actual banking services provided. Most financial institutions are alike in the banking services provided to their consumers. Their prices are generally comparable, and in fact might look similar in design, but where they differed was in the quality level of services provided to their consumers. As financial institutions grow, there is a tendency for services to give way to volume delivery to enhance profitability. It would appear that service quality could make a difference. It leads to reduced costs, increased profit-ability, and other beneficial elements.

In today's banking environment, banks' profitability levels have been compressed due to increased com-petition and spread reductions. Banks once relied upon

services to make their profit margin in a highly regulated market place, and the consumers basically were on the sidelines, but today banks are driven by consumers who demand service quality. Banks need to realize good quality of services, in order to keep consumers and maximize profitability.

It is important that employees realize a common banks goals and to work on implementation of strategies to achieve those goals. Lewis and Booms (1993) found that service quality was one of the most effective means of establishing a competitive position and improving profit performance. To establish a competitive position, banks must measure and determine their level of service quality, if they desire to keep their consumers and satisfy their needs.

In e-marketing it is important to segment target audiences in a way that we can send them appropriate messages about banking services, and also to build good relationship with consumers. In banking sector the best promotional technique is a recommendation. If consumers are satisfied, they will recommend banking services to their friends and family. The promotion of

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*Corresponding author. Email: rahmanullah83@gmail.com. Tel: +923139558253.

articles through social networking sites is known as viral marketing. It makes use of social networks to increase brand awareness. Viral marketing leads people to spread the marketing message voluntarily.

An effective use of the Internet can result in successful marketing as the Internet covers a wide range of audiences. Moreover, e-marketing achieves a fast spread of information. E-banking is an umbrella term for the process by which consumers may perform banking transactions electronically without visiting financial institutions.

The banks began to race in the world in order to provide banking services with the latest information technology and communications, which led to the widespread use of the concept of marketing e-banking. Multiple bank websites on the Internet serve to meet the needs and desires of consumers. In spite of those numerous websites located on the Internet, they vary in the quality level of banking services and the level of prices for providing the services electronically. However, all these banks share one common feature that completing the sale, purchase and exchange happens in an on-line environment.

E-banking has benefits for financial institutions; to reduce costs and access to a broader base of con-sumers, as well as, being able to increase the efficiency of banking business. By e-banking financial institutions increase the volume of provided services and to create new services, according to consumer's needs. This is what allows them access to new markets and helps them to acquire a competitive advantage, enhances its competitiveness, and the intensification of competition that on-line banking allows; for consumers to compare banking services, and to choose the best and most appropriate bank.

Although, e-banks offer many of the same services as do traditional banks, analysts view e-banking as a means of retaining increasingly sophisticated consumers, of developing a new consumer base, and of taking a better position on the market place. Because e-banks generally have lower operational and transactional costs than do traditional banks, they are often able to offer low-cost checking and high-yield certificates of deposit. E-banking is not limited to a physical place. Some e-banks exist without physical branches. Further, in some cases, e-banks are not restricted to conducting transactions within national borders and have the ability to make transact-tions involving large amounts of assets instantaneously.

According to economy analysts, e-banking provides a variety of attractive possibilities for remote account access, including: availability of inquiry and transaction services around the clock, worldwide connectivity, easy access to transaction data (both recent and historical), and direct consumer control of international movement of funds, without intermediation of financial institutions in a consumer's jurisdiction. E-marketing and e-banking in Libya, was not applied which was a problem in the Libyan economy.

This research aims to identify the understanding of clients of the commercial banks in Libya: the concept and importance of e-marketing, the role of e-marketing in strengthening the relationship between banks and their consumers, the impact of e-marketing on the quality of banking services, and the impact of demographic factors to understand the quality of banking services, as well as to contribute to providing information base that will help departments of commercial banks in Libya to embrace the concept of e-banking.

## LITERATURE REVIEW

Papers about quality in banking services by Grönroos (1982), Lehtinen and Lehtinen (1982), as well as Lewis and Booms (1993) suggested that the quality of service, impacts on consumer's behavior, as well as on consumers attitude toward a bank and the providers of finance services.

According to Lewis and Booms (1993) quality of services in a bank is a measure of how a bank supplies finance services and how consumers realize finance services and the bank as a brand. Quality of services provides a better position for a bank on finance market place. Quality of finance services depends on consumer expectations and performances that can improve bank on market place.

Parasuraman et al. (1985) analyze the gap between consumer expectations and bank's finance services quality. This paper includes 12 focus groups which have been involved in the analysis of consumer's behavior and opinion about finance services of the bank.

Previous concepts of financial services' quality sug-gested several aspects of consumer behavior and consumer expectations of financial services. Sasser (1978) gave three dimensions of a service's perfor-mances: level of materials, equipment and personals. Grönroos (1982) suggested two type of service's quality: technical quality or consumer satisfaction with financial services, and functional quality or way that consumers conceptualize financial services and the bank.

Mangold and Babakus (1991) analyzed physical corporations and interactive quality. Previous papers are unique in the conclusion that consumers use different approaches in using financial services. Consumer expectation is under impact of service's process, but also under impact of people in organizations and other instruments of marketing mix.

The paper of Parasuraman et al. (1985) identified criteria in evaluations which consumers can use in financial services. These criteria are safety, exactness, competitiveness, value, communicability and credibility. Parasuraman et al. (1985) gave a theoretical approach to the complexity of the quality in financial services and developed an integrated marketing approach in the

process of delivery of financial services. This approach is named "model of gap". The model gives specific position of key concepts, strategies and decisions of financial companies that give consumers safety, improvement and satisfaction. The model includes five gaps, in which the consumer is the most important, before process and other instruments of marketing mix. Other gaps are: the lack of knowledge which consumer expects election of a wrongly designed model and standard of financial services, unsafe delivery according to standard of financial services and gaps in standards of performances.

The potential that the Internet possesses has started to be recognized in the past years in papers by Hoffman (2000). In these the Internet is evaluated as a revolutionary break for communications in business and private area. There are so many business opportunities by using the Internet, as well as privately, by social networks. Authors in the field of marketing Peppers and Rogers (1993, 1997) commented on the digital marketing approach as a new way of marketing strategies to improve satisfaction of consumers. These models were one way, from companies to consumers.

Nowadays, it is an interactive relationship through communications between companies and consumers. Author Deighton (1996) noted that interactivity has given a new approach to marketing strategies, new models of business and new interactivity in relationship between companies and consumers.

The Internet, as media, is very important in the interactive marketing approach by Hoffman and Novak (1996, 1997). Haeckel (1998) noted that a new approach has given opportunities to be better in the competitive financial market place. The new Internet characteristic gives an integrated marketing approach, which is innovative, personal and competitive in the financial market place.

Chang (2000) gave a new idea, according to Hoffman et al. (1995), that quality in on-line environment improves quality of interface, quality of communications and improvement of satisfaction of consumers. This is a result of new integrated marketing approach, new Internet business experience, and new interactive communications. Internet gives consumers opportunities to find information about financial services on market place and to communicate with a bank's referents.

Dellaert and Kahn (1999) wrote about importance in the measurement of site interactivity which is a sign for good communication with consumers. Weinberg (2000) improved hypothesis that consumers do not want to be uninformed and to spend so much time in finding information.

Voss (2000) talked about the importance of online support on the Internet, because consumers need answers to many questions, especially in financial business. When a bank has online feedback answers it is very important for consumers because they feel comfortable and friendly with the bank. The same is with consumer complaints, because when a bank passes a crisis situation it sends the information that the bank worry about their consumers.

Ghose and Dou (1998) and Haque et al. (2009) noted that it is very important to be interactive with consumers, because those kinds of sites consumers call, "top sites". The design of sites is very important, wrote Mandel and Johnson (1999), as well as Haubl and Trifts (2001).

Berry et al. (1988) observed that quality of service is very important in separating competing businesses in the retail sector as well as in banking. Bahi and Nantel (1998) noted that for a competitive position on market, banks have to determine and measure their level of service quality. The measurement of financial services is necessary, because companies need to identify companies' attributes which improve financial performances. Quality of services, on the other hand, is an abstract concept by three key characteristics unique for financial services: intangible, compact and uncovered.

The first paper about SERVQUAL model was presented in Parasuraman et al. (1988). SERVQUAL model is easy to use for measurement of consumer's satisfaction by questioning of focus group. By improvement of SERVQUAL model, companies get opportunities to pass gaps in process of delivery financial services. It is useful for Internet delivery of financial services to have queries about satisfaction in the whole process so that consumers can give opinions about expectations, needs and wishes.

Model SERVQUAL and its adaptation can be used in different contexts from real estate broker (Johnson et al., 1988), physicians in private practice (Brown and Swartz, 1989), car's shops (Carman, 1990; Berndt, 2009), stores (Finn and Lamb, 1991; Teas, 1993), companies for maintenance of electrical network (Babakus and Boller, 1992), hospitals (Babakus and Mangold, 1992), Blešić et al., 2011), banks (Cronin and Taylor, 1992; Ashfaq et al., 2010) and others business sectors.

In bank's sector there are many papers about service's qualities made in the last years, as well as, about SERVQUAL model, based on hypothesis that consumers' satisfaction is the most important in banks positioning on financial market place (Kangis and Voukelatos, 1997; Bahia and Nantel, 1998; Angur et al., 1999; Joseph et al., 1999; Jun et al., 1999; Jabnoun and Al-Tamimi, 2002). Model SERVQUAL is improved in the last few years by consumers' desire and exactness of financial services according to consumers' expectation.

## MATERIALS AND METHODS

General hypothesis of research presented in this paper is that the study is relied on a set of assumptions which are aimed primarily to determine the impact of e-marketing and e-banking on the quality of banking services to the commercial banks in Libya. Specific hypotheses of the research are:

$H_1$: SERVQUAL model can be adapted to measure the quality of service in the banking sector, using conventional and electronic channels.

**H₂:** The quality of service in the banking sector will affect the processes of providing services, consumer experience and the results of services provided.

**H₃:** There is a difference in the level of quality banking services by consumers, depending on age of consumers and years of bank's practice.

For the purposes of the research, model SERVQUAL was used to assess the quality of banking services. SERVQUAL is a multi-item scale developed to assess consumer perceptions of service quality in service and retail businesses (Parasuraman et al., 1988). The scale decomposes the notion of service quality into five constructs as follows:

a. Tangibles - physical facilities, equipment, staff appearance, etc.
b. Reliability - ability to perform service dependably and accurately.
c. Responsiveness - willingness to help and respond to consumer need.
d. Assurance - ability of staff to inspire confidence and trust.
e. Empathy - the extent to which caring, individualized service is given.

SERVQUAL represents service quality as the discrepancy between consumers' expectations for a service offering and the consumers' perceptions of the service received, requiring respondents to answer questions about both their expectations and their perceptions. Parasuraman et al. (1991) presented some revisions to the original SERVQUAL measure to remedy problems with high means and standard deviations found on some questions and to obtain a direct measure of the importance of each construction to the consumer.

In the SERVQUAL instrument, 22 statements measure the performance across these five dimensions. For each statement, the expectation and the perception of a consumer are determined. For this research is developed a structured questionnaire with 22 questions on perception (Appendix 1) and the 22 questions on expectation (Appendix 2), based on the theoretical evidence and accumulated experiences from international studies.

The study population consists of consumers of 18 commercial banks operating in Libya's commercial banks. The number of sampled consumers was 325. The questionnaire was distributed in January 2011. Interviews were held in person rather than by telephone, allowing more flexibility for both interviewer and interviewees, as well as, for better observation of the body language for certain expressions and attitudes. Interviewees were given a brief outline and explanation of the research and its purpose. All interviewees were assured of the anonymity and confidentiality of the data gathered.

Questions from one to four will produce a composite score to represent the tangible factor of the perceptions responses and measured against the tangible factor of the expectation response. Subsequently, the gaps will be measured against the factors. Likewise, a composite score will be produced to represent perceptions responses to questions from five to nine and will be measured against the expectation responses, to determine the difference gaps in the reliability factor. Those responses will be measured and plotted.

Questions from ten to thirteen will produce a composite score to represent the responsiveness factor and measured against that same factor, in responses to expectations questions. Once again, the resultant differences in the gap will result in the responsiveness factor. Responses to questions from fourteen to seventeen will produce a composite score to represent the assurance factor of the perceptions responses and measured against the assurance factor of the expectation responses. Subsequently, the difference gaps will result in the assurance factor.

A composite score representing the perceptions responses to questions from eighteen to twenty-two will be measured against the expectation responses, to determine the difference gaps in the reliability factor. Those response differences will result in the plot for reliability.

The data was analysed with Statistical Package for the Social Sciences (SPSS) software. All answers are presented in this statistical software, and analysed according to statistical proposition.

## RESULTS AND DISCUSSION

The key contribution of this paper is holistic analysis of banking services quality in Libya, as a base for development of e-banking services in this region. The paper gives the statement that development of e-banking in this region will improve financial business and achieve social and economy objectives. The rapid development of e-banking services in the world financial market place has impact in the development of these approaches in financial business in other regions. Beside good knowledge in banking sector and good relationship with consumers, employees in banking sector have to improve new skills in communications with consumers in on-line environment. All those could improve position of bank on financial market place, as well as, improve consumers' satisfaction.

In this chapter presents the results of the research findings, outlining the various forms of analysis, and evaluation of the starting research's hypotheses. The analysis examines the demographic data such as gender, age, income, and education. Additionally, the data is evaluated in the areas of frequency of bank visits, and reasons for choosing the financial institution.

Analysis of variances was used to investigate the possibility of differences between respondent's perceptions and expectations for each of the 22 questions. Following the research methods of the SERVQUAL model, data are grouping and evaluation into a combined five element analysis, based upon the original 22 questions.

The targeted number of consumers questionnaires distributed on a random basis by the 18 banks achieved the minimum projection of 325 consumers questionnaires distributed. This resulted in all 325 responses of which 325 were useable, which means that useable response rate was 100%.

It could be seen in the Table 1, that all the values of t were statistically significant at the level of significance 0.000 on all dimensions of the research. It is expected and perceptible that the study sample distributes a breakdown naturally and represents all segments of society. Therefore, it was using statistical techniques landmark for the analysis of the results of this research and verification of the hypotheses.

### Profile of the respondents

The gender of the respondents was not balanced, because 68.0% of respondents were males and 32%

**Table 1.** The results of questionnaire.

|  | N | Mean | Std. Deviation | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| Expected tangibles | 325 | 13.2031 | 1.46418 | 162.563 | 324 | 0.000 |
| Expected reliability | 325 | 13.4492 | 1.39268 | 174.096 | 324 | 0.000 |
| Expected responsiveness | 325 | 13.1785 | 1.51296 | 157.029 | 324 | 0.000 |
| Expected assurance | 325 | 13.0985 | 1.56234 | 151.143 | 324 | 0.000 |
| Expected empathy | 325 | 12.9908 | 1.60725 | 145.711 | 324 | 0.000 |
| Perceptible tangibles | 325 | 5.5754 | 1.79282 | 56.063 | 324 | 0.000 |
| Perceptible reliability | 325 | 5.0615 | 1.51614 | 60.185 | 324 | 0.000 |
| Perceptible responsiveness | 325 | 5.3477 | 1.69759 | 56.790 | 324 | 0.000 |
| Perceptible assurance | 325 | 5.5785 | 1.78752 | 56.261 | 324 | 0.000 |
| Perceptible empathy | 325 | 5.5538 | 1.83107 | 54.680 | 324 | 0.000 |

**Table 2.** Tangible differences between consumer expectations to perceptions.

|  | Tangible | Mean | N | Std. deviation | t | df | Sig.(2-tailed) |
|---|---|---|---|---|---|---|---|
| Pair 1 | Expected | 13.2031 | 325 | 1.46418 | 61.958 | 324 | 0.000 |
|  | Perceptible | 5.5754 | 325 | 1.79282 |  |  |  |

were females. This is the result of tradition, because men go to banks more often than women.

Categories for the age of the respondents were established to reflect a logical system of age. Respondents in the 21 to 34 years of age category represented 37.8% of all respondents, followed by the 35 to 49 age grouping of respondents at 28.3%. The age group in the 50 to 64 years of age represented 23.7% of the respondents, while the 21 and less age category represented 6.5%. As would be expected, the 65 years of age and over category represented the smallest number of respondents at 3.7%.

The respondents in the category of income showed that fewer than 3600 Libyan dinars are the largest group of respondents at 44.0%. The second largest group at 31.3% was the group with the income between 3,600 and 7,200. The third largest group was the 7.200 to 12,000 income level at 14.2 %. The 12,000 to 18,000 income group was fourth with 6.5%. The smallest group was the 18,000 or more income group at 4.0%.

Data about level of education shows that the largest segment of respondents at 32.0% had not completed high school. The second largest group of respondents were those who had obtained bachelor degrees at 28.2%. Those respondents who had completed high school made up the third largest group at 19.1%, followed by 14.5% of the respondents who had completed some college. In the smallest group were those who had completed post-graduate degree such as a master's degree or doctor of philosophy degree at 6.2%.

The respondents were asked how often they visit a bank. The results represented that 48.9% of respondents go to bank one time per month or less, followed by 38.8%

who go to a bank from 2 to 4 times per month. The third group was 9.5% of respondents who go to bank from 5 to 8 times per month, and finally the group that goes to a bank 9 or more times was 2.8%.

**Testing hypothesis**

$H_1$: SERVQUAL model can be adapted to measure the quality of service in the banking sector, using conventional and electronic channels.

It is significant for the banking sector in Libya to adapt a SERVQUAL model to measure the quality of services. It will help the improvement of the banking sector in Libya which is essential for its development. All this will be done in the accordance with the conventional and electronic channels which ensure the applicability of this system in Libya. Only after this system will be applied and in fully used, will the benefits be seen in the banking sector.

To obtain a better evaluation of the tangible aspects of consumer expectations compared to perceptions, the first four questions (Appendices 1 and 2), evaluated the tangible elements of the results. Table 2 illustrates the average differences between expectations and perceptions.

In Table 2 presents that the value of t was statistically significant at the level of significance 0.000, which indicates the existence of a difference in the average of the sample around the expected and perceptible quality of services in the banks. The average level of perceptible tangibles is 5.5754, which makes it very low. However,

**Table 3.** Reliability differences between consumer expectations to perceptions.

|        | Reliability | Mean | N | Std. deviation | t | df | Sig. (2-tailed) |
|--------|-------------|------|---|----------------|---|----|-----------------|
| Pair 2 | Expected | 13.4492 | 325 | 1.39268 | 76.826 | 324 | 0.000 |
|        | Perceptible | 5.0615 | 325 | 1.51614 | | | |

**Table 4.** Responsiveness differences between consumer expectations to perceptions.

|        | Responsiveness | Mean | N | Std. deviation | t | df | Sig. (2-tailed) |
|--------|----------------|------|---|----------------|---|----|-----------------|
| Pair 3 | Expected | 13.1785 | 325 | 1.51296 | 64.550 | 324 | 0.000 |
|        | Perceptible | 5.3477 | 325 | 1.69759 | | | |

**Table 5.** Assurance differences between consumer expectations to perceptions.

|        | Assurance | Mean | N | Std. Deviation | t | df | Sig. (2-tailed) |
|--------|-----------|------|---|----------------|---|----|-----------------|
| Pair 4 | Expected | 13.0985 | 325 | 1.56234 | 57.595 | 324 | 0.000 |
|        | Perceptible | 5.5785 | 325 | 1.78752 | | | |

when it comes to the expected tangibles the average level is 13.2031. This proves the need of banks to improve their tangibles, which will impact on better service quality.

To obtain a better evaluation of the reliability aspects of consumer expectations compared to perceptions, the questions 5, 6, 7, 8, 9 (Appendices 1 and 2), evaluated the tangible elements of the results. Table 3 illustrates the average differences between expectations and the perceptions, giving out the results of the t-test for each of the questions.

Table 3 is present that the value of t was statistically significant at the level of significance 0.000, which indicates the existence of a difference in the average of the sample around the expected and perceptible quality of services in the banks. The average level of perceptible reliability is 5.0615, which makes it very low. However, when it comes to the expected reliability the average level is 13.4492. This highlights the need of banks to improve their reliability, in order to develope better quality of services.

In order to obtain a better evaluation of the respon-siveness aspects of consumer expectations compared to perceptions, the questions 10,11,12,13 (Appendices 1 and 2), evaluated the responsiveness elements of the results.

Table 4 illustrates the average differences between expectations and perceptions, giving out the results of the t-test for each of the questions. In the Table 4 is presented that the value of t which was statistically significant at the level of significance 0.000, which indicates the existence of a difference in the average of the sample around the expected and perceptible quality

of services in the banks. The average level of perceptible responsiveness is 5.3477. For the expected respon-siveness, the average level is 13.1785. The banks need to improve their responsiveness, as a base for better quality of services.

With the goal to obtain a better evaluation of the assurance aspects of consumer expectations compared to perceptions, the questions 14,15,16,17,18 (Appendices 1 and 2), evaluated the assurance elements of the results. Table 5 illustrates the average differences bet-ween expectations and perceptions, and further sets out the results of the t-test for each of the questions.

Results in Table 5 represented that the value of t was statistically significant at the level of significance 0.000, which indicates the existence of a difference in the average of the sample around the expected and per-ceptible quality of services in the banks. The average level of perceptible assurance is 5.5785. The expected assurance the average level is 13.0985. This proves the need for banks to improve their assurance.

To obtain a better evaluation of the empathy aspects of consumer expectations compared to perceptions, the last four questions (Appendices 1 and 2) evaluated the empathy elements of the results. Table 6 illustrates the average differences between expectations versus perceptions, and further sets out the results of the t-test for each of the questions.

In the Table 6 is present that the value of t was statistically significant at the level of significance 0.000, which indicates the existence of a difference in the average of the sample around the expected and percep-tible quality of services in the banks. The average level of perceptible empathy is 5.5538. For the expected

**Table 6.** Empathy differences between consumer expectations to perceptions.

| | Empathy | Mean | N | Std. Deviation | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|
| Pair 5 | Expected | 12.9908 | 325 | 1.60725 | 55.688 | 324 | 0.000 |
| | Perceptible | 5.5538 | 325 | 1.83107 | | | |

**Table 7.** Correlation coefficient alpha.

| Quality factor | Expectations | Perceptions |
|---|---|---|
| Tangibles | 0.79 | 0.77 |
| Reliability | 0.89 | 0.73 |
| Responsiveness | 0.68 | 0.71 |
| Assurance | 0.61 | 0.78 |
| Empathy | 0.60 | 0.74 |
| Total | 0.71 | 0.74 |

**Table 8.** Correlation between the dimensions of quality model – expectations.

| | | E. Tangibles | E. Reliability | E. Responsiveness | E. Assurance | E. Empathy |
|---|---|---|---|---|---|---|
| E. Tangibles | Pearson correlation | 1 | 0.568[**] | 0.208[**] | 0.247[**] | 0.179[**] |
| | Sig. (2-tailed) | | 0.000 | 0.000 | 0.000 | 0.001 |
| | N | 325 | 325 | 325 | 325 | 325 |
| E. Reliability | Pearson correlation | 0.568[**] | 1 | 0.266[**] | 0.204[**] | 0.227[**] |
| | Sig. (2-tailed) | 0.000 | | 0.000 | 0.000 | 0.000 |
| | N | 325 | 325 | 325 | 325 | 325 |
| E. Responsiveness | Pearson correlation | 0.208[**] | 0.266[**] | 1 | 0.400[**] | 0.236[**] |
| | Sig. (2-tailed) | 0.000 | 0.000 | | 0.000 | 0.000 |
| | N | 325 | 325 | 325 | 325 | 325 |
| E. Assurance | Pearson correlation | 0.247[**] | 0.204[**] | 0.400[**] | 1 | 0.419[**] |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | | 0.000 |
| | N | 325 | 325 | 325 | 325 | 325 |
| E. Empathy | Pearson correlation | 0.179[**] | 0.227[**] | 0.236[**] | 0.419[**] | 1 |
| | Sig. (2-tailed) | 0.001 | 0.000 | 0.000 | 0.000 | |
| | N | 325 | 325 | 325 | 325 | 325 |

empathy, the average level is 12.9908. Banks need to improve their empathy, in order to improve banking services' quality.

To verify the stability of the measurements, coefficient alpha was used to indicate the degree of internal con-sistency between the contents of the scale in each of its dimensions. Also this was used for specific expectations and the actual quality. The service table shows the results of the correlation of coefficient alpha in the dimension of expectations and perception. Table 7 shows the correlation of coefficient alpha. The expectations of

the client are located in the acceptable range with co-efficient alpha 0.71, while the degree of internal consistency of the actual performance is 0.74.

The other methods for proving the validity of this hypothesis are the methods of construct validity and convergent validity.

Result in Table 8 and 9 shows that all correlation coefficients between the dimensions of quality model were statistically significant at the 0.001 level of significance, indicating that the dimensions of this topic are close to real. It is indicated that the existence of a

**Table 9.** Correlation between the dimensions of quality model – Perceptions.

| | | P. Tangibles | P. Reliability | P. Responsiveness | P. Assurance | P. Empathy |
|---|---|---|---|---|---|---|
| **P. Tangibles** | Pearson correlation | 1 | 0.410** | 0.200** | 0.280** | 0.296** |
| | Sig. (2-tailed) | | 0.000 | 0.000 | 0.000 | 0.000 |
| | N | 325 | 325 | 325 | 325 | 325 |
| **P. Reliability** | Pearson correlation | 0.410** | 1 | 0.301** | 0.272** | 0.371** |
| | Sig. (2-tailed) | 0.000 | | 0.000 | 0.000 | 0.000 |
| | N | 325 | 325 | 325 | 325 | 325 |
| **P. Responsiveness** | Pearson correlation | 0.200** | 0.301** | 1 | 0.428** | 0.262** |
| | Sig. (2-tailed) | 0.000 | 0.000 | | 0.000 | 0.000 |
| | N | 325 | 325 | 325 | 325 | 325 |
| **P. Assurance** | Pearson correlation | 0.280** | 0.272** | 0.428** | 1 | 0.387** |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | | .000 |
| | N | 325 | 325 | 325 | 325 | 325 |
| **P. Empathy** | Pearson correlation | 0.296** | 0.371** | 0.262** | 0.387** | 1 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | |
| | N | 325 | 325 | 325 | 325 | 325 |

**Table 10.** Priority for choosing current bank.

| S/N | Choosing your current bank | Mean rank |
|---|---|---|
| 1 | Advertising | 3.50 |
| 2 | Location | 3.81 |
| 3 | Recommendation of others | 1.82 |
| 4 | Services' charges or fees | 1.73 |
| 5 | Services' quality | 4.14 |

N = 325, Kendall's w = 0.522, Chi-Square = 678.4, f = 4, Asymp. Sig. = 0.000.

relationship between all dimensions of the quality model is the most important indicator of validity. This is applicable in the Libyan banking sector, which will improve its business.

**H₂:** The quality of services in the banking sector will affect the processes of providing services, consumers' experiences and the results of services provided.

One of the general questions in the survey was about criteria for choosing a consumer's current bank. By analysis of respondents, results are presented in Table 10. It shows that the value of Chi-Square is 678.4. It is statistically significant at the 0.000 level degree of freedom 4 and this confirms that the services' quality influences on the whole process of banking services in Libya. It has been found that the quality of services had the highest average level of 4.14. Therefore, the research

proves that the hypothesis is correct and that the quality of banking services has impact on the process of banking services.

**H₃:** There is a difference in the level of quality banking services by consumers, depending on age of consumers and years of bank's practice.

In Table 11, the results of the first part of the third hypothesis can be seen; that they are not statistically significant at the 0.05 level, indicating that there was no difference in the provision of services to consumers, according to their age in all dimensions of the actual quality of services. The first part of this hypothesis has been rejected by the research, because the opposite results have been proven. The research has shown that consumers have the same treatment in banks and that it does not differentiate depending on age.

**Table 11.** Provision of services to consumers according to their age.

| Ages | N | Mean rankes | | | | |
|---|---|---|---|---|---|---|
| | | Tangibles | Reliability | Responsiveness | Assurance | Empathy |
| < 21 | 21 | 162.05 | 190.14 | 207.50 | 143.88 | 157.90 |
| 21-34 | 123 | 160.70 | 164.90 | 168.23 | 164.93 | 161.03 |
| 35-49 | 92 | 163.00 | 157.80 | 161.13 | 166.27 | 166.80 |
| 50-64 | 77 | 168.94 | 163.14 | 149.11 | 163.01 | 165.92 |
| > 65 | 12 | 150.08 | 135.00 | 135.00 | 151.50 | 144.21 |
| Chi-square | | 0.636 | 3.426 | 8.187 | 1.249 | 0.849 |
| df | | 4 | 4 | 4 | 4 | 4 |
| Asymp. Sig. | | 0.959 | 0.489 | 0.085 | 0.870 | 0.932 |

**Table 12.** Provision of services to consumers according to age of banks.

| Year of start | N | Mean rank | | | | |
|---|---|---|---|---|---|---|
| | | P. Tangibles | P. Reliability | P. Responsiveness | P. Assurance | P. Empathy |
| 1970- 79 | 139 | 196.55 | 190.32 | 193.96 | 204.54 | 203.96 |
| 1981-89 | 13 | 191.35 | 169.81 | 171.35 | 199.73 | 226.69 |
| 1990-99 | 39 | 175.82 | 163.73 | 146.40 | 150.29 | 128.27 |
| 2000-09 | 134 | 121.71 | 133.78 | 134.91 | 120.04 | 124.44 |
| Chi-Square | | 47.497 | | 29.529 | 59.579 | 62.343 |
| df | | 3 | 3 | 3 | 3 | 3 |
| Asymp. Sig | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

The second part of the third hypothesis regards the age and experience of the bank (Table 12). Some consumers prefer banks with more business experience, because they find them more reliable and confident. It can be seen in Table 12 that they were statistically significant at the level of significance 0.000, which indicates the existence of differences between banks that have more years of experience. In this way, the second part of this hypothesis has been confirmed.

## CONCLUSION

This paper gives theoretical and practical approach of improving quality of banking services, as base for developing e-banking practices, according to new trends on financial market place. In Libya e-marketing and e-banking are new approaches which banks need to accept, according to banking changes in world market place. This paper highlighted needs for development of these approaches in banking sector in Libya. This approach should increase the efficiency of Libya's economy to make their products and services higher quality and their consumers more satisfied.

SERVQUAL model was used as the optimum for measuring quality of services. The research done in this paper confirmed the first hypothesis; SERVQUAL model

can be adapted to measure the quality of service in the banking sector, using conventional and electronic channels. The results represented that banks need to improve their tangibles, reliability, responsiveness, assurance and empathy as this will contribute to better service quality. Also, the second hypothesis has been confirmed, the quality of service in the banking sector will affect the processes of providing services, consumer experience and the results of services provided. Third hypothesis was that there is a difference in the level of quality banking services by consumers, depending on age of consumers and years of bank's practice.

The first part of this hypothesis has been rejected by the research, because the opposite results have been proven. The research shows that consumers have the same treatment in banks and that it does not differentiate depending on age. The second part of the third hypothesis regards the age and experience of the bank.

Some consumers prefer banks with more experience, because they find them more reliable and confident. The second part of the third hypothesis has been confirmed.

According to previous results, it can be concluded that banks in Libya need to improve quality of services by focusing on improving quality of banking services, as a base for developing e-banking. Following the world's experience on financial market place, it is proven that consumers of banking services expect from banks high

use of information an Internet technology, and therefore e-banking will impact the improvement of the quality services in the banking sector in Libya.

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**Appendix 1.** Questionnaire. Please state your level of agreement with each of the following statements from the perspective of what you expect from a bank. Circle one number for each statement.

| (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|
| Unimportant | Acceptable | Average | High | Very high |

| | | |
|---|---|---|
| 1. | The need for equipment to keep pace with the times and modern technology. | 1  2  3  4  5 |
| 2. | The looks of a bank is modern and pleasant. | 1  2  3  4  5 |
| 3. | Elegant clothing and pleasant reception. | 1  2  3  4  5 |
| 4. | General appearance of the bank must be consistent with the nature of the service provided. | 1  2  3  4  5 |
| 5. | If banks promise to do something in a given period they must do so. | 1  2  3  4  5 |
| 6. | Banks need to keep accurate records. | 1  2  3  4  5 |
| 7. | Banks are expected to determine the time of completion of service. | 1  2  3  4  5 |
| 8. | Consumers can be confident in working in the banks. | 1  2  3  4  5 |
| 9. | Consumers should feel secure in their dealings with the bank's employees. | 1  2  3  4  5 |
| 10. | The necessity for a bank to the consumer service right from the first time. | 1  2  3  4  5 |
| 11. | The need to have a full staff ready to assist consumers. | 1  2  3  4  5 |
| 12. | It is unacceptable that workers are able to meet consumer requests immediately because they were preoccupied in other works. | 1  2  3  4  5 |
| 13. | That the behavior of employees in banks is polite | 1  2  3  4  5 |
| 14. | Expected of employees in banks to provide online service. | 1  2  3  4  5 |
| 15. | Banks need to be given each client individual attention. | 1  2  3  4  5 |
| 16. | The need to give workers a personal interest in each client. | 1  2  3  4  5 |
| 17. | Expect banks to provide hours of work appropriate to the circumstances of each consumer. | 1  2  3  4  5 |
| 18. | If banks promise to do something in a given period they must do so. | 1  2  3  4  5 |
| 19. | Workers are expected to know the needs of their consumers. | 1  2  3  4  5 |
| 20. | Banks are expected to be the interest of their clients at the forefront of their concerns. | 1  2  3  4  5 |
| 21. | Bank employees should understand the specific needs of their consumers. | 1  2  3  4  5 |
| 22. | The bank employees should adequately response to the needs of a consumer. | 1  2  3  4  5 |

**Appendix 2.** Questionnaire. Please indicate your level of agreement with the following statements describing the level of actual service provided by your bank. Circle one number for each statement.

| (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|
| Unimportant | Acceptable | Average | High | Very high |

| | | |
|---|---|---|
| 1. | The banks keep pace with modern equipment and modern technology. | 1  2  3  4  5 |
| 2. | Bank has an attractive and pleasant appearance. | 1  2  3  4  5 |
| 3. | Workers with nice appearance and elegant clothing. | 1  2  3  4  5 |
| 4. | Fits the general appearance of the bank with the nature of the service provided. | 1  2  3  4  5 |
| 5. | When banks promise to do something in a given period they do so. | 1  2  3  4  5 |
| 6. | The bank maintains accurate records. | 1  2  3  4  5 |
| 7. | Bank shall determine the time of completion of service carefully. | 1  2  3  4  5 |
| 8. | Bank staff can be trusted. | 1  2  3  4  5 |
| 9. | You can feel safe when you make your dealings with the bank's employees. | 1  2  3  4  5 |
| 10. | Bank leads the correct service from the first time. | 1  2  3  4  5 |
| 11. | Bank staffs have always ready staff to help me. | 1  2  3  4  5 |
| 12. | Bank staffs meet the requests immediately, whatever the degree of concern. | 1  2  3  4  5 |
| 13. | Bank staffs are polite. | 1  2  3  4  5 |

**Appendix 2.** Contd.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 14. | Staff will provide the online service. | 1 | 2 | 3 | 4 | 5 |
| 15. | Bank consumers pay individual attention. | 1 | 2 | 3 | 4 | 5 |
| 16. | Bank staffs give consumers personal attention. | 1 | 2 | 3 | 4 | 5 |
| 17. | Banks provide hours of work appropriate to my circumstances. | 1 | 2 | 3 | 4 | 5 |
| 18. | When banks promise to do something in a given period they do so. | 1 | 2 | 3 | 4 | 5 |
| 19. | Bank staff, understands my needs. | 1 | 2 | 3 | 4 | 5 |
| 20. | Bank puts my interest at the forefront. | 1 | 2 | 3 | 4 | 5 |
| 21. | Bank employees understand my specific needs. | 1 | 2 | 3 | 4 | 5 |
| 22. | The bank employees adequately response to the needs of a consumers. | 1 | 2 | 3 | 4 | 5 |