

Performance Assessment of Payment Gateways in Banking, a Case of Electronic Banking Services in Tehran, Iran

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Abstract— This paper aims to analyze the performance of payment gateways in e-banking, proposing the best strategy to enhance customer satisfaction and increase the market share. Payment gateways such as ATM, POS, Internet Bank, and Mobile bank are considered in this research study. Data is collected through questionnaires among 200 bank customers. Collected data is entered into the SPSS software by implementing the modeling features of SPSS in conjunction with conducting relevant tests on the data. The special relationship between the data is determined. Data analysis shows that creating and inducing trust in customers as they utilize banking services can greatly influence the quality of the service. Finally, some strategies are proposed to bank managers for increasing customer satisfaction by using electronic payment gateways. The results can boost our understanding of customer motivation for using payment gateways. This understanding can aid our effort when promoting the e-service in banking sector.

Keywords; e-Banking, Payment Gateways, Performance Assessment, Banking

I. INTRODUCTION

Nowadays, due to vast change in the knowledge management, the need for an assessment system has become almost inevitable, in the way that lack of an assessment system in different aspects of the organization, including the assessment of the usage of resources or facilities, personnel, goals and strategies, is considered one of the organizational agenda. Every organization has an urgent need to implement an evaluating system in order to gain knowledge over the utility and quality of its activities, especially in complex and dynamic

environments. Due to the Internet becomes yet more widespread in banking sector, the significance of identifying impacts on customer acceptance performance in e-banking has turned into a colossal subject [1]. Electronic banking is an indispensable tool for existence and causes basic changes in the banking industry all across the globe. Nowadays, the services of the banks are delivered to the clients in a moment, by simply clicking a mouse button. In addition, customers can choose the best supplier that meets their financial needs in a way that has made electronic banking a strategic weapon for banks [2]. Under the situation of rapid growth of online banking transactions, it is urgent and necessary to examine the performance of online banking services [1]. The purpose of this research is to study and understand the effective factors of customer satisfaction on electronic payment gateway service to strengthening the weaknesses of these services in order to increase the market share.

II. LITERATURE REVIEW

Electronic commerce is one of the best instances of using Information and Communications Technology for economic purposes. Using such technology leads to economic growth and development, which improves business performance and develops global economy. Furthermore, Information and Communication Technology surges the competitive advantages in businesses as well as contributing to create new jobs [3], but the acceptance of technology is one of the most significant factors, which should be put in check by each organization. In one study, researchers examined various models of technology acceptance and used behavior to propose a research model in this discipline. They used Unified Theory of acceptance and Entrepreneurial Potential Model to offer a modified conceptual coherent model, including four key factors, which are: performance prospect, work expectancy, social impact, and assisting circumstance. They added user involvement and intention to use as a two extra factors regarding user behavior [3]. Another important factor is "Trust". Bankadeh and Gangi Nia [16] identified and ranked the factors, affecting on client's trusts in e-banking services in Branches of Mellat Bank in Iran. They studied over 450 customers data through questionnaires, using the 5-point Likert scale as an evaluation method for the questionnaires, carrying out SPSS techniques to analyze the data. The results proposed that there is a affirmative and consequential link between 5 autonomous research variables: security, perceptual easy using, perceived usefulness, knowledge growing, and user-friendly and dependent research variable that is the customers' reliance to internet banking services. In addition, the results show that to increase customer trust, bank managers should pay enough attention and special focus on usefulness and helpfulness, and ease of use of the content, products, and services on the Internet banking website. Also they should pay attention to the security of e-banking system and the safety of transactions information, and provide the services and financial information required by customers [16]. Rapid developments in Information and Communication Technology might serve as a breeding ground for wide political, economical and social changes. Divandari and his colleagues investigated the influential factors in purchasing decisions of Internet Banking customers. Electronic questionnaires were applied for data gathering through a case study of Internet banking customers of Mellat Bank. The results illustrated that banks can achieve more distinctive status in service offering through designing systems to propose a secure and certain services with minimum errors; presenting various Internet based services; providing timely information related to these sort of services; educating customers on how to use them and trying to create a positive image on customer's minds by appropriate advertising packages [4].

Such developments have also deeply affected banking and has caused major changes in this industry. Due to the swift development of ICT industry, major changes have been made in the forms of money and in resource transfer systems in banking industry. As a result, electronic banking has emerged as new concept in the field of banking. Saeidzadeh (2013) in another attempt investigated the level of customer satisfaction of e-banking services as well as the elements affecting customer satisfaction. Data were collected via questionnaires among 200 clients of various branch of the bank in the city of Isfahan and quantitative data analysis techniques were carried out on data through SPSS software. The outcomes of this study contend that there is a noteworthy positive association between salary level, service provided by personnel and education level with the dependent variables. Furthermore, it was discovered that the new banking services provided by banks are not a determining factor in choosing the bank by customers; rather the most important factor is the modernity of banking services [5].

In another research study, Salhieh Jamal Abu-Doleh Nada Hijazi, (2011) proposed a framework, which would be utilized to evaluate the level of banks' readiness in order to promote e-banking services in Jordan. A data collecting method was based on questionnaires, carrying out analytical analysis in this research study. The questionnaires were disseminated to bank staffs, customers, and IT chiefs and their deputies in the bank. In the second questionnaires researchers focused on asking a question about reception of e-banking services by clients and their ideas about these services, and a third questionnaire was established for measuring the ICT structure in the bank. In this research, 18 commercial and Islamic banks were getting involved as a population of study. This research has performed three concepts to recommend and validate a framework that can measure e-banking readiness, and perceptions of bankers, perception of customers, and IT infrastructures in bank. However, this

study presented that bank CEO's pay attention to e-banking services as a strategically and operational significant factors. Furthermore, customers are optimistic about acceptance new banking channels. Nevertheless it is obvious that some elements such as technological features and IT workers' skills are top affairs [6]. Researchers have claimed that the ease of use of novel technologies as an internal factor will effect the reception of electronic banking. Some people prefer online services because of being available at any time and place. In one study researchers explore and integrate the different assets of online banking to form an affirmative aspect named perceived benefit. Moreover, drawing from perceived risk theory, five particular risk aspects – financial, security/privacy, performance, social and time risk are incorporate with perceived benefit as well as unified with the technology acceptance model (TAM) and theory of planned behavior (TPB) model to suggest a theoretical model for clarifying customers' objective for using online banking. Online questionnaires were used to gather client data in a private bank in Taiwan, developing in a sample size of 368 users for a total response rate of 83%. The pre-test has carried out on 10 respondents who have experience of using online banking services for more than 3 years. They requested clients for commenting on the length of the instrument, the format, and the expressing of the scales. Hence, the mechanism has confirmed content validity. The results showed that security/privacy risk as well as financial risk is negatively effect client intentions for using online banking. In essence, it is affirmatively affected mostly by perceived benefit, tendency and perceived effectiveness [7].

The diversity of operational problems combined with ever changing regulatory policies is indicators that improvement opportunities can be used to produce efficient banking (traditional and electronic) services. The ability to propose such improvements can only be preceded by the detailed analysis and measurement of electronic banking performance [17]. According to Bernardin, 2003, performance measurement data can be widely used for service recovery, performance improvement and documentation. It can also be used in decisions regarding the staff (such as promotion, transfer and dismissal), analysis of training needs, staff development and research, and program assessment [9]. Organizations, which provide a better service quality, will bring a high level of customer satisfaction. Customer's satisfaction represents an up-to-date quality method in firms and corporations, supporting an expansion of a truly customer-focused management and culture. Performance assessment of bank offers an direct, consequential and independent response about customer's favorites and prospects. Mihelis (2001) presented a survey for customer satisfaction in a private bank sector to evaluate the level of customer satisfaction in a banking industry. This survey was developed in two various branches of the Commercial Bank in Greece. It consisted of 303 questioners; besides, 160 private customers and 95 businesses have been joined in the survey. The most indispensable results in this study includes the exploration of the strong and the weak facts of the bank, the performance assessment of the bank (globally and per criteria/subcriteria), and the detection of unique critical groups of customers. In essence, the vibrant factor of the business corporation is "customer satisfaction", which should be taken into account. Any modifications in the present market can affect customer's preferences and expectations [10]. Polatoglu & Ekin (2001), in their research entitled " Investigating the factors affecting Internet banking services' acceptance by customers in Turkish banks", and based on the data collected from the customers of Garanti Bank in Turkey, along with multiple interviews, found the factors most essential in the acceptance of Internet banking services by the customer in Turkey. They were seeking the answers to the question of which factors can surge the efficiency of customers' utilization of Internet banking services. Factors investigated including system security and the cost of using Internet banking services were among the factors affecting customer satisfaction more than the others, which in turn resulted in their acceptance of these services [11]. In a research by Gerald et al. named "Why customers do not use Internet banking services?" they have started identifying the factors which give rise to reasons why customers are reluctant to use Internet banking services. Considering this aim, they used surveys for gathering the data required. The findings of this investigation advised the banks to use effective advertisement programs thereby encouraging the customers for using Internet banking services. The analytical results contend that using these advertisement programs led to attracting more male customers with higher salaries and education who were already shopping online and gaining more insight into Internet banking [12].

In 2004, Pinkarin et al. conducted a research to distinguish the factors, which effect the customers' intention of using online banking services. They identified some influential factors by investigating subject literature and conducting interviews with bank managers in Finland and a overall of 427 questionnaires forms were distributed to respondents of which 268 were returned giving a response rate of 63 percent. The resulting outcome revealed that the advantage that is realized by using Internet banking services by customers and the information presented about online banking services affect the customers' intention of using them. Also a person's income level is one of the population-oriented variables, which influence customers' intention in using Internet banking services. The results revealed that a couple of key factors play an indispensable role in online banking acceptance by customers, factors including; perceived effectiveness and information on online banking on the Website. Gender and age did not have considerable effects as statistical variables, and the effect of customers' usage of online banking services was not verified. This research and its rich literature support the following factors: the effectiveness of variables, efficient use of systems, ease of use of systems, enjoyment and attractiveness of use of systems, security of systems, Internet connection quality and offering sufficient

information about the online services that have been made available [14]. In another research study, researchers tried to propose a theoretical model to illustrate the influence of e-banking on bank's performance with the balance scorecard method to study about using modern technologies to produce appropriate service to the customers. Data gathering approach was based on questionnaires. Results showed that some parameters such as usefulness, stability, confidence, quickness, trustworthiness, and attractiveness of using banking service provider, marketing and various type of services, effect on bank's performance [13]. Other study focused on measuring the quality of e-banking portals. The authors validated a model for the construct of web portal quality according to the following criteria: confidentiality and trust, basic quality of services, cross-buying services quality, added value, transaction support and responsiveness. The explored scopes can practically be categorized into three service groups: core services, extra services, and trouble-shooting services. Understanding of these factors as a main determinant of consumer's quality insight on the Internet offers banks a promising starting point for determining an efficient quality management for their e-banking services [18]. Furthermore, Esichaikul, V. and Janecek, P. (2009) used a current model to assess a performance of Internet banking in Thailand. Three banks that were pioneered to implement Internet banking in Thailand were selected for their study. A semi-supervised technique used for questionnaires. The survey was conducted during 21 days, and 256 questionnaires were gathered. Results of this study indicated that an awareness of inadequate security was the key elements that disheartened clients from interaction with Internet banking. Favorable situations for approval were user-friendliness and easy-learning, perceived effectiveness and reliability of the banks and of the security procedures. Nevertheless, client's service was measured not well sufficient and the information offered did not fit the majority's requests and based on the outcomes, suggestions were offered the managers of the banks [32].

III. METHODOLOGY

The following research is classified as quantitative and the survey method is incorporated in it. In order to verify the accuracy and credibility of the questions pre-tests have been utilized. Subsequently, after editing and exclusion of errors, the edited surveys were distributed among the main sample society.

For gathering data and investigating the premises of this research, library methods such as books, domestic and foreign articles, the Internet and also field methods have been incorporated. As opposed to interviews, a survey is generally more facile and enables researchers to study a larger statistical society. Factors such as ATM services, POS devices, Internet banking and mobile banking are discussed and assessed by the authors. In order to produce the survey in this research, key factors in performance are derived from four electronic services, and with the aid of organization's experts, some of these factors were rendered and balance.

The questionnaire is divided into four main sections such as; Internet bank, ATM, POS, and Mobile bank. In the proceedings, a fifth section has been included which analyzes the correlation between electronic services' performance and customer satisfaction. In the sixth part, the effects of customer satisfaction on the size of clientele, and their share of the market have been scrutinized. Since the current research is based on qualitative information, the sampling method used is in the form of questionnaires. Statistical samples are a number of customers (consumers of electronic banking services in one of the Iranian private Bank in Tehran). Sample volume has been calculated using the Cochran formula as follows:

$$n = \frac{Z^2 pq N}{d^2 (N - 1) + Z^2 pq}$$

Here N, n, and Z represent the statistical population, the sample volume, and the value of standard-unit normal variable respectively. The value of Z is equal to 1.96, on a 95% level of significance. p shows the ratio of the attribute present in the population, which can be considered equal to 5.0 if not available. In the latter case, variance reaches its maximum value. q is the percentage of individuals lacking that specific attribute in the population. Finally, d exhibits the value of the margin of error (P=q-1). ε represents the margin of error, assuming to be 0.07 according to similar studies. Hence, sample size was estimated to be about 196 customers. This formula was invented by William G Cochran, Professor of Statistics, Harvard University. Finding a suitable sample always was given less attention as one of the obstacles in every science. The merits of sampling methods are; cost reduction, speed improvement, larger scope, and more accuracy. This approach is used in order to develop a method for selecting a samples by lowest costs and precise enough for our goal [8]. This formula is used in a study concerning about process planning of service through quality function improvement in e-banking service. Due to the population size in the section of electronic banking services is unlimited and it was not possible to measure all members of the society therefore the sample variance was calculated according to the preliminary sample. By using Cochran formula the sample size was obtained as 196 customers. Thus, the findings presented novel approach of process planning of electronic banking has implemented to have more precise prioritizing of client requests [19]. Similarly, in our study the population of e-banking users is high, hence we used Cochran sampling technique to produce more accurate results. The questionnaire used in this research has been prepared in the format of the five-valued method of Likert, which is one of the most popular ways of collecting answers to closed questions. To examine participant's response, five-point Likert scales were

used [21]. Likert scale questions are easy to complete and interpret [22]. For specifying the level of respondent agreement to a statement, five-point Likert scale has been performed. The various range using in Likert scales are mentioned below; 1. Totally disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Totally agree [32]. Dr. Rensis Likert, a sociologist at the university of Michigan, invents this method. He developed a way that can generate attitude measures, which could practically be interpreted as measurements on an accurate metric scale [20]. In Likert's method, interviewees are presented with a statement, asking them to what extent they agree or disagree with it [15]. The key benefit of Likert Scale questions is that they use a general technique of gathering data that means it is easy to recognize them. Actually, it is easy to achieve a conclusion report through analyzing a quantitative data. Also, It is very easy to analyze all received response. Finally, it is very fast and easygoing to operate this sort of assessment, sending out via all modes of communication such as text messages [20]. Karjaluoto, H, in the study about factors motivating attitude formation into online banking in Finland used Likert scale to explore the influence of diverse factors affecting formation towards online banking. The results indicate both theoretical and practical roles in electronic retail banking and identifying a client's behavior in the unstable financial services segment [23].

Concerning the validity of the questionnaire, it was initially made available to managers and experts, whose comments and viewpoints were exercised in revising the questionnaire. All things considered, the questionnaire has been verified using the opinions of experts. The reliability of which, has been calculated using the Cronbach's alpha method. Cronbach's alpha is a method of measurement of internal reliability, which is, how narrowly correlated sets of objects are as a cluster. This formula is reflected to be a portion of scale consistency. Heuristic factor analysis is one approach of examining dimensionality. In essence, this test is not a statistical test – it is a coefficient of consistency (or reliability). Lee Cronbach first named it in 1951. Cronbach's alpha can be conducted as a method for the number of test elements and the mediocre inter-correlation amongst the objects. Below, for theoretical target, we display the formula for the uniform Cronbach's alpha:

$$\alpha = \frac{N \cdot \bar{c}}{v + (N - 1) \cdot \bar{c}}$$

Here N represents the number of objects, c-bar is the average inter-item covariance among the items and v-bar indicates the average variance. This method calculates the internal consistency of measuring tools, such as questionnaires or tests that evaluate various features [24]. In the study done in Jordan about assessment of e-banking readiness, researchers utilized question-based data gathering techniques. They proposed a reliability values through Cronbach's alpha for any items in the questionnaires finally, suggest an outline, which can be utilized to evaluate the bank's readiness level for offering electronic banking services [6]. In this research study to compute Cronbach's coefficient alpha, the variance of the scores of every subset of questions in the questionnaire needs to be calculated, along with the variance of the subtest and the total variance. Such approach determines the internal consistency of tests that measure different properties. Below table shows the Cronbach's alpha for variables of payment gateways in e-banking;

Table 1. Cronbach's alpha reliability values

Variable	Cronbach's alpha
Mobile banking	0.96
Internet banking	0.96
ATM	0.96
POS	0.99

As it is shown in the table, the Cronbach's alpha is 0.96 for each variable.

IV. ANALYSIS AND FINDINGS

In this paper, several analyses have been carried out on data from different aspects. BCG Matrix, Five Porter rules, SWOT and IE matrix have been applied to our data collection. We acquire our data from surveys, each containing 48 questions based on different previously-set variables affecting performance analysis and development of payment gateways in electronic banking. These questions and their respective answers as a whole will be analyzed and will greatly assist us in better comprehension of the main influential factors influencing performance analysis and development of payment gateways in electronic banking. The main goal of analysis and study of the tables and conducting tests is either accepting or rejecting the research hypotheses. In this part, we firstly study the significance of variables' effect on performance and development of payment gateways in electronic banking and finally by ranking these variables, the most influential factors will be analyzed.

The BCG matrix is a framework generated by Boston Consulting Group in 1970 for assessing the strategic situation of the business plan portfolio and its potential. This matrix categorizes business status into four sections based on the pair of factors such as; industry attractiveness and competitive situation. The Matrix

consists of 4 quadrants resulting on market growth and relative market share. The business in each quadrant also has distinctive qualities in regard to cash flow and can be labeled with terms that have become popular jargon; “stars”, “cash cows”, “question marks”, and “dogs”. The “stars” are highly attractive businesses and they have robust competitive position. They make bank of cash due to their successful condition, however, at the same time, need a noteworthy money resources for sustaining their competitive strength in their quickly developing market. The “Cash Cows” - these businesses are foundations of cash for the organization. Due to their exceedingly high competitive force in decreasing markets, they create more cash that they should reinvest in themselves. Hence, they are sources of cash to develop other businesses within the corporation. The “question marks” refers to main untapped occasions, which are very attractive because of the high market growth they enjoy. Nonetheless, they have not attained major market shares. This kind of businesses amongst them that would be positively encouraged to a leading position must be recognized before committing a required great amount of cash to them. The “dogs” refers to businesses, which are clearly the numerous losers, unattractive and weak. They are “cash traps”. Since even a little money they produce is required to maintain their procedures [25]. Based on our data collection and classification into four quadrant of BCG matrix we conclude that, Internet banking belongs to “stars” group because of the highly competitiveness. Also they make a great amount of money. Mobile bank belongs to “cash cow” in a declining market. ATM belongs to “star” group because of highly growing and strong competitive position, and POS dedicated to “stars” group due to the highly attractiveness and strong competitiveness. Therefore, bank should spend budget on “stars” group such as ATM and POS to surge the market share. Another method used in this research study is porter five rules. The Porter's Five Forces technique is a naive but dominant approach to understand where power lies in a business position. This is precious, due to the fact that it helps for understanding both the asset of your current competitive status, and the influence of a condition you're bearing in mind moving into. Porter's Five Forces model, named after Michael E. Porter, classifies and examines five competitive forces that character each business, helping to identify a business's weaknesses and strengths. These factors include: Rivalry in the industry, Potential of new participants into the commerce, Power of suppliers, Power of patrons, and Risk of substitute goods [26].

In terms of competition in the industry, bank industry is still developing, as it has not reached full maturity yet. The complexity of information is high and the government has put many external obstacles on it, as a result internal competition is at a high level. Regarding potential of new entrants into the industry we determine that alternative products for banks are abundant, the investment opportunities in other places are still possible. In terms of power of suppliers, since the services offered by the banks are almost entirely the same for every client and little variation is seen, it reduces the bargaining ability of the service providers. For Power of customers, due to the fact that clients' information has ascended, they could refer to different banks, and this fact has strengthened their bargaining ability. In addition, the general analysis resulting from the porter model indicates that market breach and market expansion should be taken into account. The main reason for market breach would be population growth and the fact that the current request for these services is not satisfied. Market expansion is yet another strategy which proves worthy and can produce resolutions such as branch multiplication and expansion. It could be proposed that by granting privileges and facilities to the current clients, a system could be created through which they introduce new clients to the bank, thereby the marketing task is automatically done by the clients and eventually the current clients will be even more satisfied. Another analysis technique, which is used in this research study, was SWOT analysis. SWOT analysis was introduced in the 1960s by an administration advisor named Albert Humphrey at the Stanford Research Institute. SWOT is an acronym for Strengths, Weaknesses, Opportunities, and Threats and is an organized forecasting technique that assesses those four features of an organization, project or business project. It consists of identifying the aim of the business venture or plan and detecting the internal and external factors that are satisfactory and disapproving for achieving that goal. The main aim of a SWOT analysis is to evaluate the internal and external elements that assist or delay you in reaching each of your objectives [27]. In the research done by Wonglimpiyarat, SWOT analysis was applied to study for analyzing of the mobile banking activity regarding m-money economy. The results of this study presented that mobile channel is a beneficial means to produce value-added services to the customers of the bank [28]. The SWOT analysis of our case study is presented as below table:

Table 2. SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Human resource: having young and highly experienced staff. • Technology: using a variety of e-banking services. • Marketing: offering a range of facilities and advertisements. 	<ul style="list-style-type: none"> • Management: lack of Management Information Systems. • Financial: lack of integrates financial system to validate information. • Development: few numbers of banking cards.
Opportunities	Threats
<ul style="list-style-type: none"> • Managers: Young and motivated branch managers. • Tendency: people tend to use more e-banking services. • Core banking: establishing core-banking systems. 	<ul style="list-style-type: none"> • Tax: increase the tax from government sector. • Rivals: grow a number of private banks in Iran. • Regulations: Constant changes to regulations.

By analyzing all factors of SWOT technique the results illustrates that the strengths of banks outweigh weaknesses and threats. Hence, the current situation of bank is acceptable by experts and CEO's.

For testing the assumption of normality of data the Kolmogorov-Smirnov test has been carried out in this research study. This test is a nonparametric test of the equality of constant, one-dimensional distributions of probability, which can be utilized for comparing a sample with a reference probability dissemination (one-sample K-S test), or for comparing two samples (two-sample K-S test). Kolmogorov-Smirnov test entitled after Andrey Kolmogorov and Nikolai Smirnov. This test has benefits including: (a) the statistic distribution does not rely on cumulative distribution function being tested and (b) the test is precise. Further, the Kolmogorov-Smirnov test is more sensitive to deviations near the center of the dissemination rather than at the ends [29]. Results of this test have been classified into separate groups and they are summarized as follows:

Table 3. Results of testing the assumption of normality of the data

Variable	Sig.2-taild	K-S statistics value
Mobile banking	0.06	1.34
Internet banking	0.07	1.28
ATM	0.06	1.29
POS	0.09	1.24

As can be seen, all 4 statistics are above 0.05 and the test could be done. However, without doing this test and based on the mean limit theorem we are still allowed to conclude that the number of samples exceed 30, hence, the assumption of normality is verified. Sakhaei (2014) utilized Kolmogorov-Smirnov tests to check the normality of the variables. Results argued both dependent and independent variables followed a normal distribution. She presented that the quality dimension of six services have significant correlation with client satisfaction in Internet Banking then, the most relation belongs to reliability and the least one dedicated to

website design regarding customer satisfaction [30]. In this study, IE matrix was used for determining the company's status, which was one of the three categories namely: stability, decline and grow. In the other word, using the IE matrix can characterize the status of the organization. This matrix is the linking point of the results of the analysis of internal and external factors. Actually, IE stands for Internal external as the name imply that it's based on internal and external issues of the company. This matrix is one of the essential strategic techniques that derive from the portfolio management. In fact, it is much similar to BCG Matrix. The IE matrix consists of nine cells to plan the strategic management of organization, every cell have some meaning correlated which recommend tactics. Overall, this matrix is a strategic management tool, which can be utilized for analyzing the current situation of the organization, suggesting the strategies for the future in order to gain better results. The IE matrix have to principal dimensions IFE total weighted score on x-axis and EFE total weighted score on y-axis. On X-axis of the IE matrix, the IFE overall weighted score of 1.0 to 1.99 signify a weak position, 2.0 to 2.99 reflected as normal and 3.0 to 4.0 represent a strong position. On Y-axis score of 1.0 to 1.99 characterize low, 2.0 to 2.99 measured, as average and 3.0 to 4.0 is strong [31]. Based on the results, the internal and external factors are as follows:

IEF Scores: 2.485 EFE Scores: 2.390

Considering the fact that both the internal and external scores are assigned in the mediocre range, a strategy must be developed and implemented for preserving and protecting it, thereby modifying it as much as required.

Table 4. IE matrix

1 (Optimal State)	2	3
4	5 (Current State)	6
7	8	9

By identifying these factors as the most important one affecting the quality of the services offered by electronic banking, and also considering their relative priority the following results are yielded:

"Employee Behavior" and their interaction with clients are the most principal and fundamental features dictating the quality of services in Internet banking. In banks - considering the goodness of the banking products and the role of clients in providing the resources managing the interaction with the client and the credence of their employees, especially the bank tellers will determine the acceptance of the bank as a whole from the clients' regard; conclusively their performance insurers' success and the progress of the bank. The second factor which is called "Employee aptitude and Skillfulness" follows the same route and emphasizes that most banking products are offered by the tellers; As a result, the quality of service provision and the attitude of their service providers will be generalized to that of the bank itself. Consequently, attitude, abilities, aptitude and skillfulness, and finally the approach of the employees are among the most critical factors determining the quality of banking services. The third factor is "Innovation in Banking Services".

The rapid expansion of communication technology and the utilization of information technology have dramatically influenced the banking activity. The expansion rate of the Informatics industry has resulted in rapid changes in form of money, funds transfer systems, and has also introduced new concepts under the name of electronic money and electronic funds transfer. From the other banks' point of view, in order to achieve a proper standing, continuous and progressive innovation in products is vital. Thus, it is obvious that this factor ranks in the third spot of the most influential factors in banking services. The fourth factor is "The Method of Correspondence and Provision of Banking Services". This factor refers directly to the bank's major operations and its method of Service provision. Absolutely, the positive influences of service provision for banks will result in more effective customer attraction than television commercials. As a result, the banks' performance, its employees and the type of services provided to the customers create an accurate Image of the services and costumer attraction.

The fifth factor is known as the "physical facilities of the bank". Technically, anything that comes into touch with the service provider such as environment, the setting and infrastructure equipment is greatly scrutinized. The sixth factor is "trustworthiness". Surely, gaining the trust of the customers in finance and credit institutions is among the most crucial features needed to ensure success and it is of no surprise that many of these institutes have greatly focused on this issue as one of their key factors. Hence, creating and inducing trust in customers as they utilize banking services can greatly influence the quality of the service. Creating variety in banking services is yet another factor which can greatly enhance banking services for the main goal of banks is satisfying the varying financial needs of the customers. Nowadays many banks in developed countries offer banking services such as various facilities, different payment methods and interest rates, various credits, consumer credit and credit cards, programmable and smart credit cards, investment services, financial consultation services, issuing

Insurance policy, trust funds, electronic transfer of funds, currency transactions and international commerce credit, etc. Thus, considering the ever changing and competitive environment that banks are compelled to survive and thrive in, diversifying their services could positively influence provision of the increasing needs of the customers and enhance the quality of banks services. The last factor extracted from these studies is "Ease of Services". Subjects such as reduction of bureaucracy and paper-based procedures, facilitating and exclusion of cleric work during the course of receiving services, provision of electronic banking services to reduce direct and in-person correspondence to the bank, ease of access to account status and access to forms and requirements, could be mentioned as factors whose provision will facilitate the reception of services and will influence enhancement of banking services' quality.

RECOMMENDATIONS

The positive approach and behavior of the employees while completing their duties and having special regard to the three factors that result in job security for the staff as an organizational policy and culture is of critical importance. In addition, providing training for modifying officials' approach with employees, systematic increase in the number of employees, and finally creating a policy that will ensure maximum utilization of the views and opinions of every staff member to adjust the organization toward increasing satisfaction, sense of belonging and loyalty with employee commitment are also regarded as critical factors. The bank must standardize the operational systems and procedures based on ISO standard so as to obtain optimal performance in providing banking services. Nowadays, the existence of SLA (service-level agreement) is considered a fundamental aspect of each service. SLA is a two-way agreement or contract between the two parties – the service supplier and the service receiver - which has been concluded in order to obtain reassurance about the agreed-upon service quality parameters (especially in telecommunication industry). In this contract, the quality level of services, the measurement means for deviation from optimal service level and their respective sanction must be determined. Furthermore, providing multi functional banking cards or e-wallet for customers is another important factor, which would be beneficial regarding enhancement of customer satisfaction of e-banking services.

CONCLUSION

In this paper, we analyze the performance of payment gateways of e-banking services to extract their weaknesses, and offer ways to enhance market share. Several quantitative methods are applied to our data through SPSS software for identifying the key factors that affect performance of payment gateways. After analyzing the data, some solutions are recommended to improve the market share in e-banking sectors such as employee behavior and their interactions with clients, employee aptitude and skillfulness, innovation in banking services, the method of the correspondence and provision of banking services, physical facilities, trustworthiness, and ease of services. These factors play an indispensable role in customer satisfaction using electronic payment gateways, ascending market share for banks in the banking industry.

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