Identifying Key Performance Indicators of an Iranian Islamic Bank Based on BSC and AHP

Mohammad Ali Shahhoseini [1], Sahand Khassehkhan [2], Nahid Shanyani [3]

[1.] Assistant Professor, Faculty of Management, University of Tehran, Iran
[2.] Department of Management, MBA, University of Tehran, Iran
[3.] Department of Management, Financial Management, University of Tehran, Iran
S.khassekhan@ut.ac.ir

Abstract: The aim of the present study is to examine the performance of an Iranian Islamic bank, i.e. K bank, based on the Balanced Scorecard. In an attempt to achieve this goal, cognitive tasks and activities, customers and stakeholders, the organizational structures, visions, and the organizational mission of K bank as an Islamic bank are identified. Perspectives in the BSC (Balanced Scorecard), as described in the present research, are financial indicators, customer indicators, internal processes indicators, as well as growth and learning. The required data were obtained through interviews with experts and bank executives. Results of the present study could contribute to policymakers' understanding of Islamic banks. The findings would also clarify whether Islamic banks are to be thought of as relics of a bygone era, propped up by grant and falsify financial-sector competition, or they are to be considered as efficient and focused financial institutions. A better understanding of such notions not only requires specific knowledge about the performance of Islamic banks, but it also calls upon the determination of their efficiency and profitability.

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1. Introduction

Banks and financial institutions have an important role in progress and economic development of each country. Currently, considering the increasing number of banks, credit and financial institutions, and also privatization of governmental banks and transformation of credit and financial institutions to banks, evaluation of their functions plays an important role. Banks are financial institutions which gather their assets from different sources and give them to sectors requiring liquidity. Therefore, banks are vital arteries of each country. By the emergence of private banks in financial markets, there is a salient increase in various bank services. Banks pass each other in order to increase financial gains and hence, they use different improvement methods to attract customers, therefore evaluation of bank functions has an important role and it can be regarded as one of the important roles of bank presidents.

Growth of banking system is in accordance to markets improvement and it increases in the same way and in an instable and changeable financial markets and based on technological improvements, fast and fundamental changes, guarantee and maintenance of efficiency can be considered as an important factor. The most important program is management control and its evaluation. Banks are important institutions in financial services in which evaluations, different fiscal and non-fiscal indexes should be considered. In a system like banking with different sectors of inputs and outputs, all of the principles affecting its function should be simultaneously mixed and verified.

The Islamic finance industry has become a favorite destination not only for the Muslims but also for the non-Muslim investors, especially in this era of financial crisis where it has become obvious that the Islamic finance industry has remained intact from brutal brunt (Yeates, 2008). "The Islamic banking industry is now worth almost an estimated US$1 trillion and is widely considered to be one of the fastest growing sectors in the world of finance. Even in the midst of a global economic crisis, Islamic banks have weathered the storm to great effect, thanks to strict regulations administered by Islamic laws, or Sharia. The Islamic finance industry is soon expected to account for 4 percent of the global economy" (ABC News, 2009). Global Islamic financial services are estimated to grow at a rate of 10%-15% from 1995 to 2005. "It is suggested that IFSI assets were worth US$700 billion in 2005 and at an annual growth of 15% until 2010, the IFSI could grow to US$1.4 trillion by 2010 and to US$2.8 trillion by 2015" (IFSB website, 2008). Since 1971, Islamic banks have continued to grow in size and numbers (Metawa and Almossawi, 1998). The

Islamic banking system has gained momentum worldwide. There are 1.57 billion Muslims of all ages living in the world today, representing 23 percent of an estimated 2009 world population of 6.8 billion. While Muslims are found on all five inhabited continents, more than 60 percent of the global Muslim population is in Asia and about 20 percent is in the Middle East and North Africa. To respond to Muslim financial needs, there are more than 180 Islamic banks and financial institutions in Asia, Africa, Europe and the USA with more than 8,000 branches (Rashid et al., 2009). The BSC stresses financial and nonfinancial aspects, long-term and short-term strategies, and internal and external business measures (Kaplan &Norton, 1992).

Through the BSC, management can not only communicate well with their employees, but also it controls the progress of strategic development in order to improve organizational performance and to increase competitiveness. “Because of the intangible nature of the products and services provided by banking institutions, one cannot easily measure the efficiency and competitiveness of banking products and services. Most available research works have focused on gauging the productivity and efficiency of the banking industry by measuring outputs, costs, and performance”(Kosmidou, Pasiouras, Doumpos, & Zopounidis, 2006).

2. Islamic Banking

Islamic finance has successfully paved its way into the mainstream financial system, since its emergence a few decades ago (Lee and Ullah, 2008). At the time, there are more than 300 Islamic Financial Institutions (IFIs) worldwide (Khan and Bhatti, 2008). Islamic banking has emerged as a rapidly developing industry and has received recognition by both Muslims and non-Muslims (Iqbal and Molyneux, 2005).

2-1-Performance of Islamic Banking

Islamic banking is primarily an equity-based system featuring zero-based interest, share economy, equity participation, joint ventures, mutual funds, leasing, innovation and a promising rate of return. Islamic banking replaces interest-based intermediation with Profit and Loss Sharing (PLS) and interest-free intermediation. It does not subscribe to the conventional criteria of funding on the basis of borrowers’ credit worthiness and strong collateral. Therefore, bad projects with strong collateral seeking bank credit cannot substitute for good projects bearing weak collateral. In other words, Islamic banking promotes a market-based mechanism wherein available investment alternatives are appraised on their merits in terms of bringing marked improvements to the allocation and distribution of wealth and resources (Ahmed, 1994; El-Ghazali, 1994).

Islamic banking is based on Shariah (Islamic law) which prohibits riba (interest), gharar (transactions involving uncertainty or speculation such as derivative trading and insurance) and businesses associated with particular sin sectors such as alcohol, pornography or gambling (Khan and Khanna, 2010). The Islamic banking model primarily relies on the instruments of mudarabah (joint venture) and musharakah (equity participation) to eliminate interest from the financial Development in Islamic banking sector and economy. Other interest-free instruments such as murabaha (deferred payment sale), ijarah (leasing), bai salam (advance payment) and bai istisna (procurement engagement) are also used to enhance the practical scope, diversification and risk management capabilities of the Islamic banking system (Khan and Bhatti, 2008).

2-2-Islamic Banking in Iran

Top international banks are interested in Islamic banking operation, for Muslims make 20 percent of the whole world population. Muslim population segment is not only a large segment, but also a growing market. Emerging market countries such as China, India, Malaysia, Singapore and Turkey have large Muslims populations. Iran has a special situation among all Islamic countries. The whole banking industry in Iran is in compliance with Islamic laws which are not the case in any other countries. For example, in Indonesia which has the largest number of Muslims, one can choose to bank according to Islamic laws or not. After the 1979 Iranian Revolution, according to the new Iranian governmental rules, non-Iranian retail/commercial banks could not work in Iran anymore. However, this will change soon and Iran’s banking market with only 30 operational domestic banks will be available for international banks. “The Islamic banking industry is very competitive and it is essential for Islamic banks to continue to study the changing behavior, attitude and perceptions of their customers especially in the retail sector which constitutes the major portion of the banking business” (Metawa and Almossawi, 1998).

“There are currently five types of banks operating in Iran: government-owned commercial banks, government-owned specialized banks, private banks, interest free lending banks and near banks. Government-owned commercial banksو total 7 in number, include some of the largest Islamic banks in the world. For example, Bank Melli Iran is the largest Islamic bank in the world in terms of Assets Under Management (AUM). It has over US$ 59 billion under management, with 3,300 branches and over 43,000 employees. All Iranian banks are to work based on Islamic banking principles and practices described in the Islamic banking law or Iran passed in 1983 by the Islamic Majlis of Iran. The country follows the Shiie version of lslam, which is more dynamic and flexible as compared with the Sunni version of Islam. This flexibility is reflected in the Islamic legal framework in banking and finance and therefore, it should make it more convenient for Western financial institutions to have business relationships with Iranian (Islamic) banks." (Humayon Dar, 2010).

3. Defining performance evaluation

Challenge, survival, new services and continuous change of customer needs, persuade banks to arrange their guidelines which help them to keep their current customers and attract new customers by proposing new techniques. Therefore, it is necessary to analyze and evaluate bank services by a measurement system with general viewpoint regarding managers' trades. To evaluate how well their banks are achieving their goals, bank policy makers often must develop an effective way to align their strategies with corporate goals on the basis of performance analyses. The structural analysis of an evaluation model that links strategic objects as effective improvement paths becomes a critical issue for banking institutions, if they are to sustain their competitive advantages. Financial return of a company was the only factor to evaluate its work in the past, but with complicated organizational structure in the recent years, new techniques should be chosen to demonstrate a high capability of verifying organizational structures so that the results could be reasonable.

Tozum (2002) reported the measurement of performances by using ratio analysis. He emphasized that traditional ratio analyses were not sufficient to measure banks' performance and they should be evaluated in a multilateral way. Another important method used in the measurement of bank performance is Data Envelopment Analysis (DEA). This method is used for measuring the efficiencies of bank's branches. (Demir and Astarcıog˘lu , 2007). Performance is referred to as one kind of measurement of the goals of an enterprise, while evaluation is referred to as the goal that an enterprise can effectively obtain during a specific period (Lebas, 1995). Towers (1996) stated that performance evaluation is an important activity of management control, used to investigate whether resources are allocated efficiently; it is applied to help operational control achieve a goal adjustment in short-term and for strategy management and planning in the long run. Performance evaluation tells us how employees define their own work, and it establishes a decision making and communication process for improvement (Kaplan and Norton, 1992). Traditional performance rankings rely on simple and consistent financial data, such as Return on Earnings (ROE) and Return on Assets (ROA) data. However, these performance rankings may not highlight strategies that lead to top performance (Hanley & Suter, 1997). Nonfinancial criteria such as customer satisfaction, communities (e.g., ''job creation and retention,'' ''spurring community revitalization''), and employees (e.g., ''employees' professional training,'' ''employee stability'') can be vital to a bank's winning strategy. Using only ROA or ROE for performance ranking does not necessarily indicate which institutions offer the highest returns for their investors, and it does not accurately determine which institutions are the most profitable (Bhagwat & Sharma, 2007).

Therefore, performance measurement should be integrated with the overall strategy of the business and should include comprehensive criteria (i.e., both financial and nonfinancial indicators) that an organization can establish within its programs, investments, and acquisitions for reaching the desired results. These criteria can help organizations identify performance problems, address root causes, drive improvement activities, and bridge the gap between short-term market or stakeholder expectations and the long-term business or organizational goals/ objectives. In addition, performance measurements must be prioritized and focused so that only the strategic terms of the KPIs for the business are measured. There are many ways to evaluate banking performance (Kosmidou et al., 2006).

4-Evaluation indicators of banking performance

Performance measurement can be defined as a system by which a company monitors its daily operations and evaluates whether the company is attaining its objectives. To fully utilize the function of performance measurement, it is suggested to set up a series of indexes which properly reflect the performance of a company. These indicators can be quantifiable, or unquantifiable. For instance, an index such as lead time is viewed as a quantifiable (or financial) measure, whereas the degree of customer satisfaction is an unquantifiable (or non-financial) measure. Managers often have difficulty in delineating strategies and selecting proper measures while implementing the BSC system. "In the early stage of implementing the BSC, it is important to collect as many ideas as possible concerning performance measurement by interviewing business managers and discussing their business vision, mission, and strategies" (Wu et al., 2009). Meyer and Markiewicz (1997) categorized the measures of critical success in banking performance to eight main subgroups: (1) profitability, (2) efficiency and productivity, (3) human resource management, (4) risk management, (5) sales effectiveness, (6) service quality, (7) capital management, and (8) competitive positioning. Collier (1995) employed structural equation models to analyze the process performance of banks using criteria such as process quality errors, employee turnover rate, labor productivity, on-time delivery, and unit cost. "Most of previous studies have focused on the customer and what bank and what general services they choose. According to the relevant literature, the criteria upon which the customer evaluates and chooses the bank consists of price, ease of access, customer services, place, credibility and reliability, modern facilities, interest rates, working hours, incentive suggestions, the domain of product, and the policy of service price" (Arshadi and Lawrence, 1987).

"All finance and credit institutions like banks evaluate their performances on the basis of financial indexes and don't pay attention to other indexes like employees' satisfaction (customer and investor), internal processes of organization and even other indexes like level of employees' income" (Schaffnit,1997). Mayer (2007) organized principle factors of success of evaluating banks in 8 groups: "1. Profitability; 2. Efficiency and productivity; 3. Human resource management; 4 Risk management; 5. Sales effectiveness; 6. Service quality; 7. Capital management; 8. Competitive positioning". Coiler (1995) used some of structural equation models in order to assess performance process of banks by criterions like "process quality errors, employee turnover rate, on-time delivery and employee efficiency". Utilized indexes by Lavens (1987) include "profitability, price of bank services, and share of local market. In accordance with literature of analysis, selective criterions which customers use for evaluation of banks include price, speed, achievement, customer service, place, credit and popularity, new facilities, interest rate, time of giving service and banking incentives."

5-Balanced Scorecard (BSC)

Norton (the management director of Nolan Norton Institute) and Robert Kaplan (the Harvard University professor) suggested BSC in 1992. "BSC specifies the organizational performance from the following four perspectives: financial, customer, internal business process, and learning and growth, which are in relation with the four following subordinates: accounting and financial, marketing, value chain, and human resources. We can use these financial and nonfinancial criteria to help directors and employees align with the outlooks of organizations from four perspectives. BSC makes directors ready for the applications of the necessary tools for a successful competitive strive" (Kaplan & Norton, 1996b). "Financial perspective links the organization to its shareholders with main attention to the question: ''How do we look to our shareholders and those with a financial interest in the organization?''. Customer perspective concentrates on identifying customers and some ways to meet their needs. In internal business processes perspective, some processes are developed by organization to create value for customers and stockholders effectively and efficiently. Learning and maturity perspective identifies the infrastructure that the organization must build to create long-term growth and improvement" (Asosheh et al., 2010). The BSC can be employed to connect vision with objectives and to translate strategies into actions (Davis & Albright, 2004; Kaplan & Norton, 2004a, 2004b). With the BSC, there should be a balance between performance drivers (leading indicators) and outcome measures (lagging indicators). Performance drivers communicate the way to achieve goals, and they indicate early on whether strategies are being implemented successfully. Outcome measures may enable the business unit to accomplish long-term operational improvements and to enhance financial performance. The ideal BSC should have an appropriate mix of performance drivers and outcome measures that have been tailored to the business unit's strategy (Frigo et al., 2000). The BSC provides managers with the instrumentation they need to navigate future competitive success (Kaplan & Norton, 1992, 1996a, 1996b). It could be concluded that BSC might not lead us to the achievement of strategic and organizational objectives (Kaplan and Norton, 1992). Some reported shortcomings for BSC (Sattari, 2011):

A. "Significant contradiction and tension among managers: implementing partial patterns because of impreciseness, subjectivity and verbal of the indicators in defining reinforcing quantitative indicators" (Norreklit, 2003).

B. BSC could be of use, only if the organization under study is defined in terms of strategy and vision.

C. BSC comes short of defining a set of quantitative indicators for stabilizing performance values, either at an individual level (i.e. performance indicator) or integrating indicators.

D. Because of tailoring criteria to the organizations strategies, putting model into practice is a cumbersome task.

E. BSC's results are integrated subjectively by users (Sue et al., 2003).

F. Regarding the hierarchical relationship among defined aspects, the independent examination of domains is not feasible.

G. Having no scoring system.

"Banks can save both time and money, if they recognize which measures are most suitable for their needs. Non-financial measures such as intangibles like customer relationships may account for more than half of the total assets of a company. An important principle of the BSC is to achieve success on key non-financial measures before actualizing success on key financial measures. These metrics, if considered in non-financial measures, can help organizations administer performance effectively and predict their profitability in perspective" (Anonymous, 2006; Mouritsen, Thorsgaard, & Bukh, 2005). The BSC is a popular tool applied by many businesses to assess their performance in diverse aspects of their organization. "It provides insights into corporate performance, not only for managers seeking ways to improve performance, but also for investors wanting to gauge the organizations' ongoing health. For banks the benefits of using BSC are numerous: (1) can be used as a framework to assess and develop a bank's strategy; (2) can be used to develop strategic objectives and performance measures to transform a bank's strategy into action; (3) provides a way to measure and monitor the performance of key performance drivers that may result in successful execution of a bank's strategy; and (4) is an effective tool to ensure that a bank continuously improves its system and process" (Frigo, Pustorino, & Krull, 2000). Davis and Albright (2004) introduced an analysis which investigates the impact of the BSC on the performance of a financial institution (Kim and Davidson, 2004). The four dimensions of this model and their associate enablers are briefly discussed below (Kaplan & Norton, 1996b). (Figure. 1)

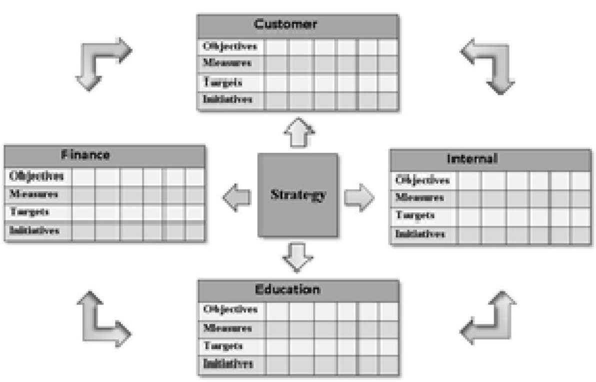

Figure 1- The four perspectives of BSC [Source: Kaplan & Norton, 1996a].

5-1-Finance perspective

The BSC retains the financial perspectives, as financial data are valuable in calculating the readily measurable economic consequences of the previous actions. Measures of financial performance indicate whether a company's strategy, implementation and execution contribute to bottom line improvement. Financial objectives typically relate to measures of profitability, including operating income, return on capital and economic value added. Alternative financial objectives can be rapid sales growth or generation of cash flow. Financial indicators that the banks regularly review include handling charge revenue, customers' market share ratio, and ability to achieve profitability and management assets.

5-2-Customer perspective

As customers are the source of business profits, satisfying customer needs is the ultimate objective of enterprises. With this perspective, management determines the expected target customers and market segments for operational units and monitors the performance of operational units in these target segments. Examples of core performance measures are customer satisfaction, customer retention, new customer acquisition, market position and market share in targeted segments. In devising the customer perspective, the banks considered the following possible measurements: customer acquisition, VIP-certified financial status, customer profitability, customer confidence and customer retention.

5-3-Internal business process perspective

The objective of this perspective is to satisfy shareholders and customers by excelling in some business processes with the greatest impact. In determining the objectives and measures, the first step should be to incorporate value chain analysis. An outmoded operating process should be adjusted to factor-in financial and customer dimension objectives. A complete internal business process value chain that can meet the current and future needs should then be constructed. The internal value chain of a common enterprise consists of three main business processes: innovation, operation and after-sale services. The banks evaluated business organization performance on the basis of innovation in system programming, certification of a financially integrated professional platform, operating quality of a group of customers, internal customer satisfaction and management stratum support.

5-4-Learning and growth perspective

The BSC's learning and growth element is intended to identify the criteria for establishing the infrastructure of an organization's growth. This indicator is arguably the most critical of the BSC perspectives for addressing the future needs of an organization. It may also be the most difficult parameter to measure. As Kaplan & Norton (1996a) pointed out: 'Managers in several organizations have noted that when they were evaluated solely on short-term financial performance, they often found it difficult to sustain investments to enhance the capability of their people, systems, and organizational processes. In devising the learning and growth perspective, the banks considered the following possible measurements: wealth managers' professional knowledge, education and training of wealth managers, wealth managers' scale of team, wealth managers' complaint system and appropriateness of performance policies for rewards and punishments.

6-Literature review

In the literature, there are a great number of studies realized by different methods to measure banks' performances and the need for such studies is increasingly growing. In the empirical studies, one of the methods widely used is ratio analysis. Analytic Hierarchy Process (AHP) is another method used in the measurement of bank performances .There are many AHP-based studies on performance evaluations. (Lee, Kwak, & Han, 1995; Wang, Huang, & Dismukes, 2004; Shaverdi, & Akbari, & Tafti, 2011; Momeni, & Maleki, 2011) . Kuo and Chen (2010) applied the four perspectives of the BSC to construct key performance appraisal indicators for the mobility of the service industries through the fuzzy Delphi method. "The BSC is also utilized as a framework to develop evaluation indicators for banking performance" (Davis & Albright, 2004; Kim & Davidson, 2004; Kuo & Chen, 2010). "An important principle of the BSC is to achieve success on key non-financial measures before actualizing success on key financial measures. These metrics, if considered in non-financial measure, can help organizations administer performance effectively and predict their forthcoming profitability" (Anonymous, 2006; Mouritsen, Thorsgaard, & Bukh, 2005). Vivas, Pastor, and Hasan (2001) examined the performances of banks in the countries of the European Union and the impacts of environmental factors on performance. Krishnan, Ramaswamy, and Damien (1999), Hussain, Gunasekaran, and Islam (2002) stated that the concept of customer satisfaction was the most important indicator of bank performances. Kaplan and Norton (1992) described performance evaluation as a way to review the achievements of organizations of both their financial and non-financial objectives.

7-Methodology

Population of this research is K Bank. To collect data, a questionnaire was used. Questionnaires were completed by superior managers and experts of banks. In this research, AHP method was used in order to analyze data and output results of this technique such as relative weights and subordinate credits have been demonstrated in the following tables. (Table. 1 - Table. 7)

Table 1. Perspectives and indicators

Internal process	
1	Number of new service
2	Transaction efficiency
3	Customer complaint
4	Sales services
5	Expansion of production
6	Management performance
Learning and growth	
7	Responses of customer service
8	Professional training
9	Employee stability
10	Employee satisfaction
11	Organization competence
Customer	
12	Customer satisfaction
13	Profit per customer
14	Market share rate
15	Customer increasing rate
16	Customer retention rate
Finance	
17	Growth of incomes
18	Debt ratio
19	Return on asset
20	Earnings per share
21	profitability
22	Return on investment
23	Return on equity

Table 2- perspective of internal processes

Key performance indicator	Weight A	Weight B
Customer complaint	0/320	0/092
Management performance	0/303	0/087
Transaction efficiency	0/200	0/057
Expansion of production	0/062	0/017
Number of new services	0/057	0/0164
Sales services	0/055	0/0160

Table 3-perspective of learning and growth

Key performance indicator	Weight A	Weight B
Responses of customer service	0/392	0/025
Organization competence	0/210	0/013
Professional training	0/184	0/011
Employee stability	0/143	0/009
Employee satisfaction	0/070	0/004

Table 4- perspective of customer

Key performance indicator	Weight A	Weight B
Customer satisfaction	0/508	0/256
Profit per customer	0/185	0/093
Customer retention rate	0/181	0/091
Market share rate	0/089	0/045
Customer increasing rate	0/035	0/017

Table 5-perspective of finance

Key performance indicator	Weight A	Weight B
Profitability	0/375	0/053
Return on equity	0/262	0/037
Earnings per share	0/196	0/028
Growth of incomes	0/081	0/011
Return on investment	0/047	0/006
Debt ratio	0/024	0/003
Return on asset	0/015	0/002

Table 6- Weight of Perspectives

Perspectives	weight
Customer	0/505
Internal process	0/288
Finance	0/143
Learning and Growth	0/064

Table 7- KPIs Ranking

KPIs	Weight	Rank
Customer satisfaction	25.6	1
Profit per customer	9.3	2
Customer complaint	9.2	3
Customer retention rate	9.1	4
Management performance	8.7	5
Transaction efficiency	5.7	6
Profitability	5.3	7

30 articles have been studied for collecting the considered indexes and the indexes with the most repetitions are selected. Two questionnaires are used for collecting the considered data. Questionnaire number 1 is presented to the relevant specialist for the final approval of the considered indexes. Questionnaire number 2 is presented for determining the performance evaluation indexes according to the concept of AHP.

The validity of the research questionnaire contents is approved, since the primary questionnaire of the research is provided, based on the identified indexes in the previous research and according to the views of university professors and the elite people. Also, the incompatibility rate is used for the reliability of the matrices for comparing the relevant factors. The values of the matrices have been equal to 0/1 or less. Only a few of the matrices had the incompatibility rate of above 0/1 or more. Hence, after eliminating these questionnaires and referring them to more specialized people for filling down the questionnaire for comparing the selections, they were modified. The statistical population at the time of research includes all the managers and deputies of the considered bank. The total volume of the samples were 20 people that included senior and intermediate managers and facilitating agents for the strategies related to financial sections, internal processing departments, customers and growth and learning.

7-1-Analytic hierarchy process

One of the decision making problems of managers is the selection of one case among various cases and this fact should be based on proper factors. If there is no need to select one item, preference of the items should be taken into account. For example, in order to select a number of contractors for a manufacturing program, different factors should be considered such as: expenses, duration of work, executive background and etc. In this case, based on the given characters and confronting them with each other and considering the importance of indexes, a character will be given which is the demonstrator of character's capability considering mentioned factors. But determining characters directly is difficult and may lead to misunderstanding in final results, so it is appropriate to have a methodology. In order to do so, in the decade of 1970, AHP technique or analysis hierarchical procedure was designed by Thomas El Saaty. Later, a brief theory of this method and its results will be given.

7-2-Structure of character selection based on criterions

The whole procedure of decision making can be divided into different continual and disconnected categories. Disconnected decision making can be divided into credit measurement and changeable credit measurements. Credits itself can be divided into three categories of qualitative, quantitative and compound (both qualitative and quantitative). Analysis hierarchical procedure (AHP) is a method which provides appropriate decision making based on qualitative, quantitative and compound credits. AHP implementation in decision making contains three phases:

-Establishing hierarchy
-Pair comparison
-Weight calculation
-System adjustment

7-2-1-Phase1: Establishing hierarchy

In phase one, important factors in decision making should be hierarchy explained like a decision making tree. Each of the credits contains some sub-branches. In AHP techniques, there is a value for each of the part of the tree either credit or character. Each of the parts of the tree can be regarded as item either characters or credits and sub-branches of credits. In the methodology of AHP, one credit will be achieved for each character and characters will be classified based on the achieved credits. Certainly, character with the most credit is the best character to be selected. Calculating credits in AHP method is based on pair comparison, which will be discussed in phase two.

7-2-2-Phase2: Pair comparison

In this phase, AHP elements of each level will be compared according to their relevant element in a superior level in a pair comparison method and their weights will be calculated. These weights are called relative weights and final weight will be identified by mixing these weights.

7-2-3- Phase3: Weight production of decision matrix

The methodology of weight calculation of decision matrix depends on the compatibility and incompatibility of the decision matrix. If

$a_{ij} \times a_{jk} = a_{ik} \; \forall i, j, k$

in decision matrix, so the relation is compatible. A decision matrix achieved in comparing characters regarding a quantitative credit always has this feature. But this is not true in the case of qualitative credits. Otherwise, the matrix will be called incompatible, and in most of the cases matrices with qualitative credits and produced by oral opinions of producers are incompatible. For each of the decision matrices, there is a method of calculation.

7-3-Weight production of compatible matrix

In this case, if the credit has a positive direction (better to have more items), the items of a column should be normalized by the total value of that column to find the weights. If the credit has a negative direction (better to have fewer items), the items of a row are normalized by the total value of that row.

7-4-Weight production of incompatible matrix

In this case, the above-mentioned method is not useful to calculate weights. There are four methods to calculate weights for incompatible decision matrix:

-Minimum square method
-Minimum logarithm square method
-Special vector method
-Approximate methods

Calculation of weight or preference of each time:

After calculating the weight of each character in relation to each credit, we should calculate credit weights regarding the target. The final weight of each character will be calculated as follows:

$$Wi = \sum_j W_{ij} \times V_j$$

In which **Wij** is the character weight regarding **j** character and **Vj** is the weight of credit **j**.

9-Ranking of Bank's Indexes

As shown in Figure 2, after analyzing data gathered from bank experts, the most important subordinate credit has been shown (Figure. 2).

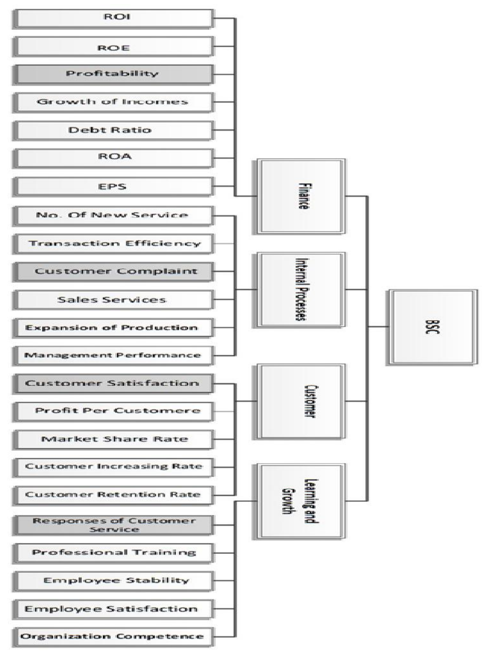

Figure 2- The most Important Subordinate Credit

And as represented in the tables above, the column of weight A of each indicator was weighted from experts of the bank and then matrices are mapped by AHP method and using the arithmetic value, mean it is calculated and ranked. The column weight B of each phase was employed in that index phase and they were classified as below. Four perspectives of BSC were calculated and ranked and the results were illustrated in table 6. In final step seven prevalent indexes in all the indexes were classified after perspective weights were employed and the results were shown in table 7.

10-Conclusion

The scope of this research is the evaluation of K Bank. In this research, we are looking for the analysis and description of influential indexes on its evaluation, and the data and information was gathered by a professional team in reunions and completing questionnaires. The first item in this study is the analysis of evaluation. The next step is related to balanced scorecard. After describing hierarchical analysis technique, evaluative indexes for banks evaluation was gathered and presented from different articles and experts viewpoints.

Finally, a study was proposed regarding the comparison and evaluation of K's bank function.

In this research, firstly, there was an evaluative organizational function model and the reasons in order to select this model are presented briefly here:

First reason: organizations need a correct improvement of trade and execution of the function in their working process to satisfy their needs, and they all need the appropriate function and strategy.

The appropriate framework is defined to be a functional management system, to adjust organizational function and viewpoint in relation to customers' needs, evaluate and manage working strategy, observe efficiency of the function, correlate organizations capabilities and programs to employees exactly as in BSC. This model has the ability to verify organizational function from different viewpoints.

Second reason: BSC is in relation with different models of function evaluation and uses different experiences of those models. Considering the growth of organization as an important factor in the process of organization's function and being flexible regarding the increase or decrease of viewpoints considering organization's situation.

Third reason: applying this model (BSC) is easy and comprehensible for each of the organization's members, and its continuous application is economical for organization. Also, it is concentrated on customers and gives them the chance to grow and facilitate relations and accelerate cultural changes in an organization.

Finally, the same indexes have been proposed by using BSC model and identifying credits and important factors in the evaluation of banks. AHP technique was used in order to verify the importance and credit weights and their influence on decision making. To do so, K Bank was chosen and after verification of experts' viewpoints and analysis of questionnaires, results showed the importance of viewpoints as in the following order:

Customers, internal process, financial function, growth and learning.

This classification considers mainly customers complains and in the second phase customers' profits and services will be taken into account. These would all say that K Bank is a bank considering the needs of the customers. Ultimate results generally show that K bank can be regarded as customer's satisfaction, customer's profit and customer's complaint. These results show that bank policy makers came to know that they should first achieve customer's satisfaction and based on that customer's profit is accessible.

Corresponding Author:
Sahand Khassehkhan
Department of Management
MBA, University Of Tehran, Kish Island, Iran
E-mail: S.khassekhan@ut.ac.ir

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