

The Study of Comparative Importance of Financial and Non-Financial Information in Performance Evaluation Model Based on BSC and Non-Structural

Case: The Inspection Of Bank Mellat Tehran

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ABSTRACT

Achieve high levels of excellence, performance improvement and quality improvement efforts to improve organizational change is needed. Services are one of the prerequisites for success in a competitive market. The banks and financial institutions to steal credit and pass the ball in an attempt to improve their competitive market. Since the financial data that reflects the organization's past performance, non-financial information that reflects the organization's future performance and influences on financial and credit organizations performance. The aim of this study was to compare the importance of financial and non-financial performance evaluation model is based on the Balanced Scorecard and is non structural. Way of doing this descriptive study, field survey and field data collection tool that combines data library. The study population comprised all that Tehran Mellat Bank inspectors have over 120 people based on census sampling method has been studied. Instrument data collected in this study, two questionnaires, the Based on the Balanced Scorecard and other classified non structural models each containing 39 questions on a variety of five options. The validity of the questionnaire was approved by the faculty advisors specialists, then Of science and statistics software spss. Both descriptive and inferential statistics were used for analysis. questionnaire reliability Balanced Scorecard is %95 and questionnaire reliability non structural model is %96.

KEYWORDS: performance evaluation, financial information, nonfinancial information, Balanced Scored Card (BSC) model, non structural model.

1. INTRODUCTION

Financial and credential institutes and banks play an important role in progress and economic development in every country. These days, considering the remarkable number of financial and credential institutes and banks in country, also considering the progress of making government's banks into private ones, and changing credit co operations and financial and credential institutes into banks as well, evaluating their functions have a specific importance. Banks are financial institutes collecting revenues from various resources, and make them available for departments needing cash. There for, banks are considered as vital veins in every country. Along with private bank arrival to financial markets, demand for various banking services have been increased dramatically as well. In order to succeed, banks intend to use different approaches for optimizing their performance to attract customers for enhancing market share and gaining more profits. Meanwhile functional assessment of banks has special importance and it has changed to one of the most crucial managers' activities.

Up to now, a plenty of approaches have been proposed functional assessment of banks. Because functional measurement is a foundation for performing research and development operations, when managers are not aware of their performance, they cannot perceive potential and unused capacities. Therefore, in order to know unused capacities, function must be measured and evaluated, to make managers conform appropriate and necessary strategies for organization to obtain their goals and perspectives and functionalize them. There are various methods and instruments for evaluating organizational functions which most of them merely consider financial indexes for functional measurement. However, in 1990s Robert Kaplan and David Norton invented an approach called "Balance

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scored card” for evaluating organization function, in which, in addition to financial indicators, nonfinancial indexes of organization are being measured and evaluated.

According to the importance of function in banking system, the present research attempted to investigate the rate of financial and nonfinancial information importance. Because it is very crucial in case nonfinancial indicators can cause long-term profitability from financial indicator managers’ perspective.

1- The main purpose of this research is determining the assessor’s increase tendency to lay stress on financial issues while using BSC compared to non-structural model usage.

2- Investigating the difference between financial and non-financial indicators in function evaluating based on BSC model.

3- Examining the difference between financial and non financial indicators in function evaluating based on non structural model.

Function evaluating model based on BSC model compared to its non-structural model, makes it possible for service and manufacturing organizations to put more emphasize on using and mobilizing tangible and intangible assets rather than investing and managing tangible and physical assets.

2. The research the theoretical framework and fundamentals

With the advent of information age increased competition and implication of organizational process, it is not possible to assess organizational function only through previous financial criteria analysis and creating a revolution in assessing system and organization strategic management is an inevitable action.[14]

In 1990, Kaplan, began his research plan to investigate 12 American company success factors and causes and study function assessing methods in these companies. The obtained results was published in an article titled “the indicators stimulating function”. In mentioned article, it is stated that successful firms did not rely on financial indicators for functional assessments rather they evaluated organizational functions from the different point of views, that is, customer, internal processes, learning and growth. BSC method or balanced score card as a function assessment system, in addition to traditional financial assessing, evaluate organizational function by adding three other views such as, customers, internal processes of business and learning and growth[13]. The mentioned method through paying particular attention to intangible assets of organization, having certain importance in the present age, grant the organization this possibility to take some measures for company sating shortages and repairing weaknesses if necessary through monitoring, control and knowing intangible asset qualities as BSC assessing innovative method by embedding it in considered assessing model. BSC method is viewed as a function evaluating novel method, BSC method has functions as the following:

1. A system for management on strategy.
2. An instrument or controlling strategy implementation form.
3. An instrument for helping realize strategy.
4. A novel method for function assessment[10].

Therefore, balanced score card, is a card in which strategy id connected to conform set of financial and nonfinancial indicators.

In balanced approach, an organization is divided into four sides. Such as:

1- financial method: financial balances are the main parts of balance evaluating system. Particularly, in nonprofit-making organizations these mode balances tell: us that successful execution of goals determined in three other modes, ultimately results in what kind of financial outcomes and consequences. We can spend our effort to improve customers’ satisfaction, quality promotion and product and service delivery time reduction. If these measures do not result in tangible outcomes in our financial reports, it will not be very valuable however [25]. The examined indexes of financial fund in this research are: foreign exchange activities, granted facility capacity, banking claim volume or load, customers frequency reference, reduction of human force cost depreciation of credit risk, yield of a branch assets , Rial volume for deposit absorption, average profitability for every employee, the volume of discovered errors and violations, every employee’s per capita cost, the number of document notes, the number of expanded bill credit.

2- customer’s mode: for selecting aims and measures related to customer’s mode. Organizations should respond two vital questions: first of all, who are our customers? Second, what are our proposed values to them? A lot of organizations believe that they know their customers and they also know what kind of products and services they should supply for them, but, in reality they supply everything for all customers. Micheal Porter believes that not focusing on special part of customers and their intended values cause organizations cannot obtain competitive advantages[27]. Customer’s mode under study

indexes are: staff skills in providing consulting services to customers, interact with customer, staff skills in offering quality service, staff skills in the speed of providing services, staff efforts in reducing customer's complaints, accepting work-errors by the staff, spending time for customers and respect them, staff attempts in identifying new services to customers.

3-Business internal process mode: In internal process fund, organizations should identify procedures in which they continue creating values for their customers by being superior. Realizing whichever goals determined in customer fund need to carry out one or more operational process in effective and efficient manner. These processes should be identified in internal process modes and appropriate measures should be developed for progress control. For supplying customers' expectations, completely new set of operational process may be needed. Developing new products and services, production and manufacturing, after-sell services and re-engineering of production process are examples of these processes[20]. Know indexes in internal process fund are:

Economical supplied services, reduction of offered services, employee skills in increasing information security, developing customer self-service, management and developing innovative services, improving service compensation system, offering different services, existence of continual service evaluation process, attempting for maximizing reliability.

4- Learning and growth fund (mode): How can we realize ambitious aims defined in internal process, customer and ultimately shareholder funds? Answering to this question lay in purposes and measures related learning and growth mode. In fact, these aims and measures are enriched aims and goals determined in three other mode. They are bases or foundations for establishing a balanced assessing system. When we determined aims and measures related to customer and internal process modes, we realized a gap existing between required skills and abilities for employees and the current level of these skills and abilities. The growth and learning mode goals should be designed to fill and cover this gaps and distances, and suitable measures should be developed to control their increase; measures such as, staff satisfaction, suitable working space, training programs for employees, staff skills,....should be selected. In this mode some know and vital indexes are: staff training and increasing their specialized power, acquiring knowledge about customers, improving working space for employees, encouraging employees to acquire recognition about offering services, staff satisfaction employees' point of views, offering innovative services by revolving key staff as maintaining and absorbing their aptitude.

For balance scored card and other keywords in this paper, different definitions and models are proposed, which selected models and definitions can be selected as follow:

Financial information: It means that sort of information considered as determining function criterion from shareholders' point of view and generally organization interested party and it contained the past function. The most important information resources for managers decision making, are financial function assessment and indexes such as, profitability, selling, capital return rate, and soon. These indexes, however, portrait one dimension of organization for decision making, and above all, These indexes are all delay type[10].

Non-financial information: This information inform a firm of it future financial function[7].

Function appraisal: function appraisal system can be nominated as evaluating and measuring process and comparison of rate and access style to desirable condition with certain criteria and attitude in certain scope and covered domain and in specific time period with purpose of continual improvement, reform and review[5].

Function management: management-based-function is a systematic approach which through processes of determining strategic goal function, measuring function, function data analysis and collecting, reviewing data report and applying these data, improve organization function[8].

Balance scored card: is one of the function evaluating revolutionary models including; financial and non financial, output, impulse criteria. Locating in four categories such as; financial, customer, internal processes, learning and growth. Organization function assessed from these four perspective[6].

Non-structural model: financial and non-financial indexes are evaluated in this model as well. In contrast to balance score card model, indexes are not taxonomized in their dimensions(financial, customer, internal processes, learning and growth)separately.

As it is mentioned before, balance scored card with a correct structure, shows business unit strategies similar to a series of cause and effect relationships described in four modes.

In other words, there is a cause and effect relationship between goals and indexes separately. As a matter of fact, organization message and strategy is translated to goals and function indexes in four mentioned modes by balance scored card. Indeed, balance scored card is a concept for interpreting organization strategic goals to sets explaining function in four modes: financial, customer, internal

processes, learning and growth. An organization can improve either current function (financial, customer satisfaction, internal process results) or efforts for reform process, personnel training and information system increase.

A great deal of research has been done about implementation of balance appraisal in small and large firms and its consequences have been published in various articles. However, there have been a few research study on investigating the effect of balance appraisal implementation on firms function which is as the following:

-Davis and Alberight (2004), carried out a research on the effect of balance evaluating implementation on firms function in an American bank. They implemented balance evaluation in four branches of that bank and after two years index results of these four branches were compared to four other branches still using traditional ways for function assessing. They realized that there is a significant relationship between implementation and using balance assessing and function optimization in this branch [19].

-Hogue and James(2000) research results revealed a positive relationship between using common appraisal criteria and better function. Although based on their research, nonfinancial function criteria had a greater role in improving firms.

-Malina and setlo (2001), evaluated balance appraisal effectiveness on transferring strategic goals. Based on their research, using balance scored card led to improving organization functions.

-Ittner et al (2003)reported different results from the three mentioned researches. They claimed that there is a negative relationship between balance assessment usage and financial function. This study has been performed about service industry, also in their study more than 75% of firms stated that they did not trust in non-financial assessing models [20].

-Banker et al(2000) investigated the relationship between financial function improvement and function evaluating system use based on non financial criteria in chain hotels. Based on their research finding, balance scored card usage led to organization functions improvement, specially there is a strong relationship between customer's satisfaction index and Hotel functions[15].

-Mehdi Tizfam, in his research , called "banks strategic function assessing", proposed aphasic, Multi-Criteia decision making method for evaluating banks and credential and financial institute's function. In this research bank function assessing criteria were limited in two financial and non financial levels for three banks (Melat, Meli, Tejarat). The results demonstrated that comparing to financial function, non financial function has a higher importance. In conclusion section of this thesis, it is stated that "Melat" bank is in the last rank in financial function, however its better non financial function caused to put in the first rank in general function. As for "Meli" bank it can be said that its weak non financial function influenced its good financial function, and its general function showed the last rank for it. It is appropriate to mention that in general function, it is crucial that a huge difference between non financial and financial function is the determining point for general function. It means that a good function, especially in financial function does not guarantee a desirable final function, but the reverse is not true.

-Mehdi Haghghi Kafash and Foad Sadeghi responded to this main question in their paper titled "function assessment of Tehran subway partnership company with balance scored card. The question was "Is the function of Tehran and District subway partnership company balanced? The research findings indicated that the function of Tehran and District subway partnership company evaluated by balance scored card was balanced.

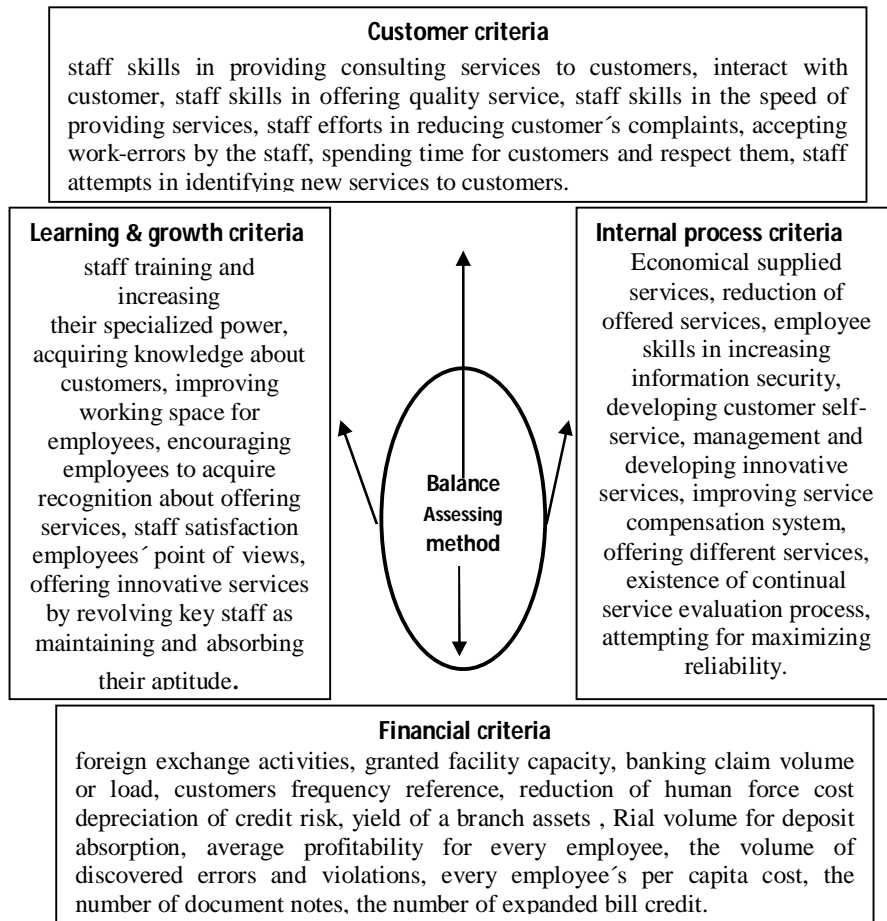
3-Conceptual Model and research hypothesis

Balance scored card and nonstructural models were used in the present study.

Balance scored card: is one of the innovative models for assessing function including, financial, non-financial, outputs and stimulus criteria, put in four categories such as, financial, customer, internal processes and learning and growth, and organization function are appraised from these four perspectives[8].

Nonstructural model: Also in this model, financial and non-financial indexes are assessed. In contrast to balance scored card model, indexes are not classified separately in their dimensions(financial, customer, internal processes and learning and growth) in this model. Balance scored card model is a structured model of financial and non financial indexes and information, in which although there are some differences between financial and non financial indexes, all four section are paid equal attention and financial indexes can be distinguished from other indexes, where as in non structural model, there is no way to recognize financial and non financial indexes.

Figure1: The conceptual model of research based on balance scored card



The proposed models are the base for editing the following hypothesis:

H1: using balance scored card increasing assessor's tendency for putting more importance on financial issues compared to using non structural model.

H2: There is a significant difference between financial and non-financial indexes on function assessing based on balance scored card model.

H3: There is a significant difference between financial and non-financial indexes on function assessing based on structural model.

4. RESEARCH METHODOLOGY

This research methodology is descriptive survey from field study branch. Descriptive research includes a set of methods whose aim is to describe under-investigation condition and phenomena. Collecting data is performed by using a questionnaire as its instrument to obtain statistical population perspective, that is, Tehran Melat bank inspectors. Research sampling method is done through census, which by considering bank inspector task descriptions for Melat bank branches assessing inspecting all over the country, it was not possible to access to all inspectors during performing the research. As it was mentioned, measuring tool in this research was two questionnaires in the form of 39 questions, One was based on dimensional format of balance scored card and the other was based on non structural format. It was attempted to ask specialist and expert's point of view about the determined indexes and criteria in order to specify ultimate indexes. To measure validity, preliminary questionnaires were submitted to supervisor, advisor and experts and they confirmed the questionnaire validity. To measure the reliability Cronbach's α was used. The validity of balance scored card questionnaire was 0.951, and non structural questionnaire validity was 0.958 indicating high reliability of measuring tools [11].

Table1: non structural model questionnaire reliability

Cronbacha	Number of questions
0.958	39

Table1: BSC model questionnaire reliability

Cronbacha	Number of questions
0.951	39

The collected data analysis was performed by descriptive and inferential statistics. First, by descriptive statistics, recognition of respondents' population conditions and characteristics was obtained next inferential statistics investigates cause and effect relations among existing variables in research conceptual model.

Statistical analysis of data was carried out by SPSS18 software. In this section, all statistical operations done on questionnaire, is offered in a certain classification.

Research finding: After examining statistical sample population characteristics (Tehran Melat- bank inspector)including, sex, age, level of education, length of service, in order to investigating the relationship among the four variables(financial, customer, internal process, growth and learning), in two research model, person correlation test was applied. The results demonstrated a significant relationship between financial dimension in balance scored card model, and customer, internal process, growth and learning dimensions, in addition, there was a meaningful relationship between financial dimension, in non structural model, and customer, internal process, growth and learning dimensions. Following that, for index rankings in research models, Friedman rank test, meaningful test of (t-test),and comparing mean to test were applied to examine the mean equality of the four indexes. Investigating of data normality was done b normality test (Shapiro-wilk) for financial, customer, internal process, growth and learning variables and then rejection or acceptance of hypothesis were examined. Table 3 shows BSC model population characteristics.

Table3: BSC model statistical sample population characteristics

Age				Sex جنسیت		Agent
More than 50	Between40-50	Between30-40	Less than 30	<female	male >	number
7.1	35.7	52.4	2.4	7.1	92.9	percentage
Length of service				Education		
More than 20	Between10-20	Less than 30	<P.H.D	Bachelor of Art	Association Of Art	Diploma>
31.0	59.5	9.5	9.5	81.0	0	9.5

Table 4: Statistical population sample feature in non structural model

Age				Sex جنسیت		Agent
More than 50	Between40-50	Between30-40	Less than 30	<female	male >	number
2.4	26.2	69.0	2.4	19	81.0	percentage

Length of service				Education		
More than 20	Between10-20	Less than 30	<P.H.D	Bachelor of Art	Association of Art	Diploma>
11.9	54.8	33.3	19.0	73.8	2.4	4.8

Correlation Test

Correlation coefficient for financial, customer, internal process, growth and learning variables is calculated because of these variables relativeness.

Pearson Correlation

As it is stated, because of data relativeness, Pearson correlation coefficient is merely considered for financial, customer, internal process, growth and learning variables in two non-structural and balance scored card model.

The highest amount of Pearson correlation coefficient is between variables such as, customer2, growth and learning 2 with(0.904) in non-structural questionnaire. The least amount of coefficient is between variables such as, customer1(related to balance scored card), growth and learning 2(related to

non structural model) with(-0.233) . More over, there is no relationship between the four dimension variables in balance scored card and existing variables in non structural questionnaires because of zero coefficient. Because two models were used in this research, the four variables related data in balance scored card model coded 1 and the four variables related data un non structural model are coded 2. According to Table5, Pearson correlation coefficient between the following pairs are meaningful or significant.

Financial1 dimension with dimension: { customer1
Process1
Growth and learning 1

Financial1 dimension with dimension: { customer2
Process2
Growth and learning 2

Internal process1 dimension → Growth and learning1

Internal process2 dimension → Growth and learning2

Table 5: Pearson correlation coefficient

		Balance scored card questionnaire variable				Non structural questionnaire variable			
		Financial 1	Customer 1	Internal process1	Growth and learning1	Financial 2	Customer 2	Internal proces2	Growth and learning2
Financial1	coefficient	1	0/684	0/663	0/623	0/212	0/05	0/017	-0/046
	sig		0	0	0	0/177	0/729	0/916	0/773
Customer1	coefficient	0/684	1	0/840	0/794	-0/051	-0/104	-0/109	0/233
	sig	0		0	0	0/861	0/941	0/693	0/290
Internal process1	coefficient	0/663	0/840	1	0/862	-0/028	-0/017	-0/063	-0/167
	sig	0	0	0	0	0/839	0/443	0/275	0/151
Growth and learning1	coefficient	0/623	0/794	0/862	1	-0/032	-0/121	-0/172	-0/225
	sig	0	0	0	0	0/839	0/443	0/275	0/151
Financial2	coefficient	0/212	-0/051	-0/028	0/032	1	0/649	0/703	0/665
	sig	0/177	0/747	0/861	0/839	0	0	0	0
Customer2	Correlation coefficient	0/055	-0/104	0/017	0/121	0/629	1	0/862	0/878
	sig	0/729	0/512	0/914	0/443	0	0	0	0
Internal process2	Correlation coefficient	0/017	-0/109	-0/063	-0/172	0/702	0/862	1	0/904
	sig	0/916	0/493	0/693	0/275	0	0	0	0
Growth and learning2	Correlation coefficient	0/042	-0/233	-0/167	-0/225	0/665	0/878	0/904	1
	sig	0/773	0/138	0/290	0/151	0	0	0	0

Hypothesis were investigated for rejection or acceptance consequently.

First hypothesis:

Using balance scored card increase assessor’s tendency to stress financial issues comparing to using non structural model.

- H0: There is no meaningful difference between the two groups1,2 mean scores in financial dimension of BSC model.
- H1: There is meaningful difference between the two groups1,2 mean scores in financial dimension of BSC model.

Each of the financial, customer, internal process, growth and learning variables are encoded into two groups1,2, assuming the two groups have equal variances in every four dimension, the significance is investigated.

H1: There is a significance difference between the two groups1,2 mean scores in BSC model financial dimension.

According to Table.6. considering Leven's Test statistics for financial dimension is(1.141) and its level of significance which is higher than test error level, that is 0.05, variance homogeneity (equality) hypothesis or assumption is accepted. Now, assuming variances are equal, according to t-test in table .6, because the significance(0.83) is higher than(0.05) then H0 (null hypothesis) will be accepted.

- $$\left\{ \begin{array}{l} H_0: \text{group 1,2 mean scores are equal in financial dimension 1.} \\ H_1: \text{group 1,2 mean scores are not equal in financial dimension 1.} \end{array} \right.$$

It means that group 1,2 mean score homogeneity in financial dimension in BSC questionnaire data will be accepted, or other words, there is no significant difference between the two financial groups in BSC and non structural model data.

As a matter of fact, it can be understood from the first research hypothesis that in two models(BSC and non structural), financial issues are stressed equally and there is no difference between financial indexes in balance scored card model and non structural model.

Table6:Independent Samples Test					
t-test for Equality of Means					
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
finance 1	.209	82	.835	.02198	.10539
customer 1	.491	82	.624	.07440	.15143
process 1	.315	82	.753	.04497	.14267
growth 1	.763	82	.447	.12169	.15942

Second Hypothesis:

There is a significant difference between financial and non financial indexes in function assessing based on BSC model.

The four dimensions in balance scored card model were designated as, financial 1, customer 1, internal process 1, growth and learning 1. Now , a meaningful relationship between financial dimension and non financial dimension(financial, customer, internal process, growth and learning)are examined in this model by data structures in the form of three following hypothesis:

- 1) $\left\{ \begin{array}{l} H_0: \text{There is not a significant difference between financial and customer non financial indexes in BSC model} \\ H_1: \text{There is a significant difference between financial and customer non financial indexes in BSC model .} \end{array} \right.$
- 2) $\left\{ \begin{array}{l} H_0: \text{There is not a significant difference between financial index and internal process non financial indexes in BSC model .} \\ H_1: \text{There is a significant difference between financial and customer non financial indexes in BSC model.} \end{array} \right.$
- 3) $\left\{ \begin{array}{l} H_0: \text{There is not a significant difference between financial index and growth and learning non financial indexes in BSC model} \\ H_1: \text{There is a significant difference between financial index and growth and learning non financial indexes in BSC model.} \end{array} \right.$

Based on Table 7. The first, fourth and fifth pairs are presented 0.606,0.626, 0.593 respectively financial dimension correlation rate with non financial dimensions in structured data, and in all of them correlation coefficients are meaningful, because their level of significance is equal to zero and it is less than test error level for correlation coefficient of($\alpha=0.05$).

Table7:Paired Samples Correlations			
		Correlation	Sig.
Pair 1	finance1 & customer1	.606	.000
Pair 2	customer1 & process1	.831	.000
Pair 3	grow1 & process1	.871	.000
Pair 4	finance1 & process1	.626	.000
Pair 5	finance1 & grow1	.593	.000
Pair 6	customer1 & grow1	.813	.000
Pair 7	finance2 & customer2	.649	.000
Pair 8	finance2 & process2	.703	.000
Pair 9	finance2 & grows2	.665	.000
Pair 10	customer2 & process2	.862	.000
Pair 11	customer2 & grows2	.878	.000
Pair 12	process2 & grows2	.904	.000

In Table 7. Hypothesis testings related to the significance between financial index and everyone of non financial indexes with pair 1, pair4 and pair 5 were examined respectively. And based on findings of significance level. In Table 8, significance level of the pairs such as, pair 1, pair4 and pair 5 have been obtained; 0.001,0.427,0.143 respectively, representing this point that hypothesis (H0) number 1 test is rejected and hypotheses (H1) in 3,2 tests are accepted. Then the general hypothesis can be analyzed in this way that in data presented in the form of BSC structure, there is a significant difference between financial and customer dimensions; However, there is no significant difference between financial dimension and non financial dimensions such as, internal process and growth and learning.

Table8:Paired Samples Correlations			
		Correlation	Sig.
Pair 1	finance1 & customer1	.606	.000
Pair 2	customer1 & process1	.831	.000
Pair 3	grow1 & process1	.871	.000
Pair 4	finance1 & process1	.626	.000
Pair 5	finance1 & grow1	.593	.000
Pair 6	customer1 & grow1	.813	.000
Pair 7	finance2 & customer2	.649	.000
Pair 8	finance2 & process2	.703	.000
Pair 9	finance2 & grows2	.665	.000
Pair 10	customer2 & process2	.862	.000
Pair 11	customer2 & grows2	.878	.000
Pair 12	process2 & grows2	.904	.000

The third hypothesis:

There is a significant difference between financial and non financial indexes in function evaluating based on non structural model. The four dimensions in non structural model determined data in the form of, financial 2, customer 2, internal process 2, growth and learning 2 illustrated as pair 7, pair 8, pair9 in Table 7. Correlation coefficients of these three variables are 0.469,0.703, 0.665 respectively, based on these data level of significance relationship between financial index 2, and non financial indexes(customer 2, internal process 2, growth and learning 2) led to forming following hypothese in non structural model data.

- 1) {
 - H0: There is not a significant difference between financial and customer non financial indexes in non structural data .
 - H1: There is a significant difference between financial and customer non financial indexes in non structural data.

- 2) {
 - H0: There is not a significant difference between financial index and internal process non financial indexes in non structural data
 - H1: There is a significant difference between financial index and internal process non financial indexes in non structural data

- 3) $\left\{ \begin{array}{l} H_0: \text{There is not a significant difference between financial index and} \\ \text{growth and learning non financial indexes in non structural data.} \\ H_1: \text{There is a significant difference between financial index and growth} \\ \text{and learning non financial indexes in non structural data.} \end{array} \right.$

Significance level related to pairs such as, pair 7, pair 8, pair 9 were obtained and presented in Table. 8. Respectively, 0.015, 0.473, 0.056. Only the first level of significance is less than ($\alpha=0.05$). It can be expressed that by using these results, in number one test (related to financial index and non financial index of customer) the null hypothesis(H_0) is rejected.

In testing number 2,3 hypotheses, the null hypothesis (H_0) is accepted. Therefore, generally it can be said that there is a meaningful difference between financial index and customer index in non structural data. However, there is not a significant difference between financial dimension and internal process dimension, and also between financial dimension and growth and learning dimension.

RESULTS AND DISCUSSION

After comparing the present research result and previous research results in this field, it can be concluded that:

Davis and Alberight research result titled “ The effect of balance evaluation implementation on firm’ function in an American bank” is different from the present research result. Because Davis and Alberight after comparing four branch index results by balance assessing method and four other branches by traditional method, found out that there is a significant relationship between implementing and applying balance assessment and function improvement of these branches, where as, there was no meaningful relationship in investigating carried out comparison in the present study.

Hoque and James performed a research an” common criteria of balance evaluating in Australian manufacturing companies”. Their research findings revealed a positive relationship between using common assessment criteria and better function. Although in their research nonfinancial function criteria had a more effective role in optimizing companies, the second hypothesis result demonstrated that there was a significant difference between financial index and non financial index(customer), that is, the rate of importance and function assessor’ attention to financial index and customer index were not the same, and there was not a significant difference between financial index and every one non financial indexes(internal process, growth and learning) and as a matter of fact, in the present study non financial indexes are considered in the direction with financial indexes.

Banker et.al, investigated the relationship between financial function improvement and using function assessing system based on nonfinancial criteria in Chain hotels. Based on their findings there is a strong relationship between customer satisfaction index and financial function improvement. The obtained results from the second hypothesis, about significance of financial and non financial indexes in balance evaluation, indicated that there is a significance between customer and financial indexes. It means that banking system, for more profitability, should pay more and more attention to customer index in addition to non financial indexes of internal process, growth and learning.

Ittner et.al, in their report claimed that there is a negative relationship between balance assessment application and financial function. The study was performed on service industry. More over, in their study, more than 75% of the companies declared that they do not trust in non financial evaluating models, where as, in the present study, it was indicated that in Melat-bank both financial non financial indexes were applied demonstrating the related organization maturity.

Mehdi Tiz fahm’s obtained research results titled as” Assessing strategic function of banks”, investigating function evaluation criteria in two financial and non financial levels for three banks, demonstrated that non financial function and Melat bank among Meli and Tejarat banks laid more importance on non financial functions than financial ones as well, which are compatible and conform with the present study obtained results. Because Melat bank inspectors stressed financial indexes such as growth and learning, and internal process similarly. And as managers and inspectors pay attention to financial indexes specifically, non financial indexes are stressed by them.

Khaled Ghasemi Lachin in his study, used effective criteria on customer satisfaction including; service quality, service-taking expense, access to the services and service characteristics, for examining the measurement rate of Iran-Saderat-bank customer satisfaction of offered services by this bank based on balance scored card. The results revealed that service characteristics got the first rank, service-taking expense acquired the second rank service quality got the third rank and finally service access obtained the

fourth rank. Because the research result showed that bank managers and inspectors should pay more attention to customer's non financial index, there fore, in order to increase customer satisfaction, the first criteria that banks should consider is the quality of offered services to them.

Function assessment is one of the continuous needs of organizations, as a tool for acquiring knowledge of organization success rate in accessing to predetermined goals and a factor in managers' decision making[26].

The main purpose in the present study was to compare financial information importance and non financial one in function assessment Based on BSC and non structural models.

The research first hypothesis result (using balance scored3card enhances assessors' tendency to lay more stress on financial issues compared with non structural model) manifested that: based on obtained results of independent samples' t-test, since significance level is greater than test-error level, then it can be stated that there is no significance difference between the two financial groups in BSC and non structural model data. In fact, the first research hypothesis is rejected. Financial indexes in BSC and non structural models are considered similarly by function assessors. The first research hypothesis examine this issue whether in BSC model stresses financial problems more than non structural model?

As matter of fact, the second hypothesis investigates the significant relationship between financial index and every one of non financial indexes (customer, internal process, growth and learning) in BSC model. According to obtained results of independent sample t-test, there is significant difference between customer and financial dimension, however, there is not a significant difference between financial dimension and non financial dimension of internal process, growth and learning. In reality, from assessors' point of views, the importance rate of financial index is the same as every one of other indexes such as, internal process and growth and learning, where as, there is a difference between financial index importance rate and customer index.

The third research hypothesis reviewed the significant relationship between financial index and each one of non financial indexes(customer, internal process, growth and learning), in non structural model. According to obtained results of independent sample t-tests, it can be said that there is a significant difference between financial index and customer index in non structural data, but there is no significant difference between financial dimension and growth and learning dimension.

It can be concluded from the results of hypothesis that both BSC and non structural models, function assessors' attention and importance rate are considered to financial index and other indexes such as growth and learning and internal process the same, while, in the two mentioned models financial and customer indexes are not stressed similarly. In a general conclusion, it can be expressed that Melat-bank both financial and non financial indexes were applied for evaluation as a sign of related organization maturity. According to obtained findings of Friedman ranking test, the four variable priority in BSC model is not meaningful. It means that there is no difference between indexes in this model, while in the four variable priority in non structural model, the first rank belonged to financial index, the second rank related to internal process and third rank referred to growth and learning indexes and finally the fourth rank belonged to customer index. As a matter of fact, dimensional BSC model lays more stress on crucial customer index in banking system than non structural model. It is necessary to mention that generally, obvious and enormous differences in financial and non financial functions are the determining factor in general function. It means that a proper function, especially in financial function does not guarantee a final favorable function, however, the opposite side of this issue is not true. Because great weight of non financial function compared to financial function can cover or overlap weaker financial function, but these two functions difference should not be enormous or excessive.

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