



Examining the Effects of Financial and Nonfinancial Indices on Function of Social Security Organization

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ABSTRACT

This article examines technique of “symmetrical evaluation” that is one of the newest techniques in of management accounting. There are firstly explained its main aspects. Then, there will be briefly explained equal evaluation process and necessary steps for its implementation. Then there will be provided some of its applications in various industries and different countries and its advantages are explained, in order to introduce scientific samples. Finally, there are presented conclusion and suggestions. It is concluded that technique of equal evaluation is one of the most important and newest techniques to evaluate operations of organization’s performance and it can be applied as a framework in military and strategic management in line with organizational changes; it is also supplementary of current techniques of management accounting in this field. However, its application should be based on cost and benefit as well as the presented steps in this article.

Keywords: Performance Evaluation, Symmetrical Evaluation, Strategic Management Accounting

JEL Classifications: L1, L25

1. INTRODUCTION

Traditional management accounting literature advocates using financial measures to assess management operations. Most scholars such as Anthony (1989) and Merchant (1989) believe that quantitative measures relate financial data with each other, prepare a summary of performance and keep out top management to engage conflicts of operational decisions, as a result, it can play informative and leadership role in the current decision-making, without need for additional costs. Despite adherence of traditional management accounting literature from financial metrics, researchers mention many problems to apply financial performance measures. For instance, Eccles and Pybarn (1992) call financial measures as poor standards because it determines results of managers’ performance after a time period and create problems to evaluate the relationship between managers’ works with the reported financial results. In addition, measures of financial performance have no guide for future performance because they have no measure relating to the insured satisfaction and organizational learning. Financial criteria focus on internal

management of organization than external affairs. Johnson and Kaplan (1987) believe that organization focus on accounting information, which is suitable for external financial reporting. However, there is questioned using the information to assess and measure internal performance. Meanwhile, financial measures do not provide a complete image on managers’ performance.

The modern management accounting literature emphasizes applying non-financial measures as means to overcome the attributed inefficiencies to fiscal measures. In fact, it believes that non-financial criteria should be used alongside with financial criteria. For example, Niven (2001) suggests that traditional financial performance measures should be used with non-financial criteria as complementary criteria for productivity, market share, social responsibility, product development and employees’ performance. In order to create and improve performance measurement, Kaplan (1992) suggests using criteria such as efficiency ratio, quality, production guidance and flexibility in production and supply. Zimmerman (2000) also states that non-financial criteria are necessary for operation control purposes

that lead using artificial control and performance evaluation systems. Nowadays, comprehensive or balanced scorecard (BSC) is one of the most important issues and topics of accounting that every day allocates new topics and seminars. For the first time, Comprehensive assessment was introduced by Kaplan and Norton (1992) in a book under the same title, which was named a treatise for organizational success around the world. They defined techniques of the BSC as management tools to transform visions and strategies into measurable goals and linking strategic decisions and performance metrics across organization key levels. They also used BSC as a framework to complement traditional financial measures of organizational performance. The BSC measures various financial and non-financial criteria, the designed criteria to capture optimal business strategy for organizations and diversify their performance in important levels. The BSC leads managers to direction that they examined organization performance by considering the following four fundamental aspects and prospects.

2. THE INSURED ASPECT

This aspect includes items such as satisfaction criteria of the insured, the insured comments, attract new insured, the considered time to answer the insured, market share, the insured profitability and finally, what wants the insured from organization. The insured aspect explains the insured approach to organization. This aspect can be also used in cases such as creating opportunities for strategic planning; linking products of information systems; understanding requirements, conditions and expectations for support and services of information system by the insured; reducing barriers to success the insured objectives with information system; and creating new connections to produce new products, support and services (Sparks, 2001; Forsythe et al., 1999). To create measurement standards and the insured satisfaction, there should also be considered the insured types and processing to produce products or services for the insured.

3. INTERNAL ASPECT

This aspect explains the required measures to do the job effectively in organization and its focus is on performance of internal processes. This aspect includes basic criteria such as service design, service expand, service efficiency, quality and productivity. Applying and improving administrative, financial and processes of human resources, on-time procuring software and hardware programs, maintenance actions and continued improving provisions of information systems including improving intelligibility, matching internal flow of information systems and continuous improving ideas are also examples of this aspect. In fact, internal aspects refer to describe inter-organizational methods, advantages and excellence.

4. INNOVATION, EDUCATION AND LEARNING ASPECT

This aspect answers the question whether organization can continue process of improving and creating value. This aspect includes criteria of staff ability, information systems and organizational procedures to make changes. Innovation, education

and learning aspect explains organization situation and its main focus is on the future success of organization and its structure. This aspect includes infrastructures i.e., necessary principles to obtain objectives in other levels of organization too. Kaplan and Norton (1992) have stated this aspect in three categories: Employees' ability (their satisfaction, personnel changes, efficiency and competence for jobs); Information technology (coverage rate and data yield); Motivation and settings (the received and applied suggestions as well as rewards). In all cases, education and learning are bases for success in any organization. Kaplan and Norton (1996) emphasize on learning more than education.

5. FINANCIAL ASPECT

This aspect includes profitability measures such as operating profit, return on the used capital, service growth, cash flow growth or economic value added. Financial aspect is the most important criterion; it is the final provided result for shareholders by company and explains the taken measures for them. In fact, financial aspect can provide the following three important criteria for shareholder: (1) Return of the used capital and cash flow related to short-term results; (2) prediction reliability in accordance with wishes of capital owners to reduce unknown factors; and (3) the unexpected changes in performance (Kaplan and Norton, 1993). Financial aspect will improve administrative and financial measures, processes of human resources, changing and developing the fixed cost and planning for products of information systems, services, plans and operations. This aspect represents that organization strategy, applications and management are involved in improving organization's bottom line. Financial aspect reflects the created strategic choices in other aspects. Therefore, BSC requires identifying and tracking financial and non-financial criteria to provide insights in organizational levels. It moves in line with this objective that organization is not limited to accounting and financial information. A company may select criteria of processes of efficiency, safety, the insured satisfaction or employee morale to protect information of the current performance parameters and lead them toward the next position. The goal is to create a set of logical criteria with organization conditions, so that it can be described and evaluated its performance. The BSC is a tool to change organization perspectives and strategies to goals; it actually helps managers to achieve their pre-designed objectives and evaluate short-term and long-term financial and non-financial as well as the balanced performance in terms of the insured shareholders, employees and people inside and outside organization. In recent years, scope of the BSC has been moved beyond measuring organization performance and management; it has been also used as a technique for strategic management and organizational changes. To access the above-mentioned criteria, BSC can be divided into three general categories (Ronny, 2002; Forsythe et al., 1999): Basic performance criteria; synthetic criteria; strategy criteria.

Basic performance criteria are financial, while organization requires non-financial criteria too. In this type of BSC, financial measurement and strategy map (a diagram that shows organization's operations and strategies simultaneously) at the bottom. In the synthetic BSC, revenues are increased by objectives of providing services and improving productivity using efficiency

and effectiveness, strategy map is appropriate. Finally, in BSC, the strategy creates major changes in management path that its measurement is low but strategy role is excellent.

6. PROCESS OF CREATING THE BSC

Although the BSC in any organization should be implemented by considering its special status and features of the related industry, but we can discuss and examine an overall process.

6.1. The First Stage: Formulating Strategic Principles

Strategic principles must be formulated based on nine clear and transparent views. The BSC is one of the most important factors in the BSC process because the next steps are looking to meet this case. The viewpoint determines direction of moving organization in the present and the future. For this purpose, there should be estimated organization infrastructures, main beliefs, market opportunities, competition, financial position, long-term and short-term objectives and what satisfies the insured. Its symbol should be executed for managers experimentally and its strengths, weaknesses, opportunities and threats should be analyzed and discussed. At this stage, the following steps should be followed:

The first step: Setting strategies - Strategy is a concept close differences between organization's current status and its necessities. Determining strategies is infrastructure of measuring management and organization performance. To formulate strategies, organization should answer the following questions: What are the main objectives of organization? What key actions should be performed by organization to obtain its predetermined goals? What instruments have an important impact on the above key measures?

Although it is very difficult to answer to the above questions, but organizations should attempt to find clear answers as much as possible. There should be taken several steps to answer the questions. The first step is to set a clear strategy based on pre-set views. This step takes precedence over everything else, and really feeds BSC. In this step, organization wants to make sure having a clear and fast strategic plan to feed BSC. A clear strategy requires certain topics that people should do and one section is associated with expectations. The subjects require the relationship between individuals working with their obligations. If company is expected to have a clear and quick strategy, it should define what is related to these activities.

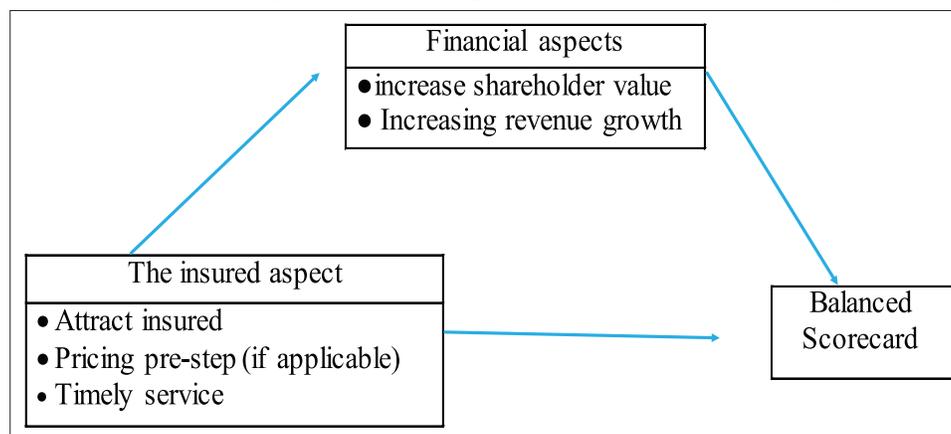
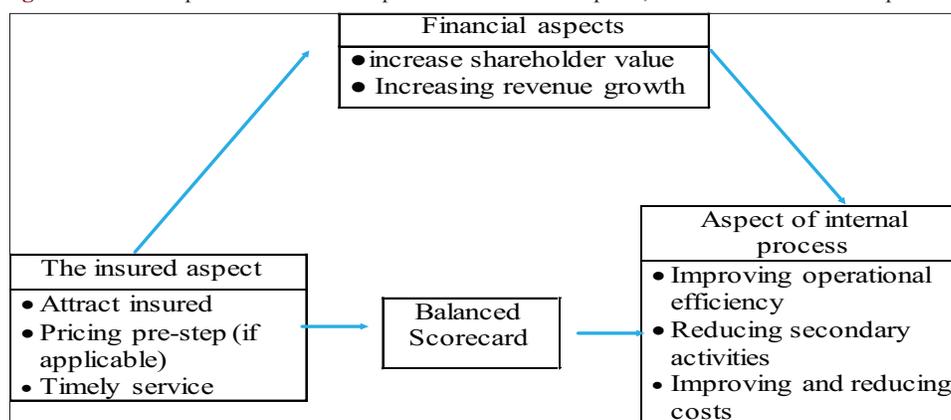
The second essential part of a strategy is executive or operational objectives. This step includes decomposing strategy to small compounds of objectives. Objectives are blocks of building strategy. In fact, the objectives are considered to set out a criterion that an organization should do. They should be measured, while objectives, measurement and criteria are essential components of BSC. Therefore, before anything, it should be clearly defined strategic objectives and then organization should be strengthened around them. Finally, different parts of organization should be re-arranged and re-composed by considering strategy. This requires changes in organizational structure, providing better and more services, ensure a culture of service and other changes. So, in strategic position, there should be created changes in organization.

The second step: Determining strategy level - Before designing BSC, there should be identified a fence line from strategic levels. This fence line causes that an organization focuses its efforts on affairs with more chances of success. In fact, levels of strategy decision-making are about affairs that organization can better do them than those that cannot do. Therefore, organization efforts should be limited and determined in specific levels. This creates an area that requires determining optimal strategies within the existing strategies. For most organizations, this field focuses on the insured, shareholders and employees. So, we should seek those levels of strategies that are critical for organizational success.

The third step: Creating strategic chains - Formulating strategy plays an essential role to create an appropriate BSC. In fact, Kaplan and Norton emphasize on importance of strategy by stating this statement that "organization should focus on strategy". Therefore, organization should focus on strategic principles and maximize strategic chains. This is spread in entire process of strategic chain combination, measures, objectives and the identified programs in four main components of BSC (insured aspects, internal processes, innovation in education and learning and financial affairs). BSC has been created based on four aspects that every aspect includes strategic issues to relate each case with its previous cases. Efforts to develop strategic issues and putting them in chains for all strategic aspects probably are the most difficult steps to create BSC. Organizations, which emphasize on operating efficiency, will create certain values including competitive prices, right services and excellent quality. Other companies may also create a value-added with emphasis on particular innovation and services. In order to make strategic chains, we must firstly have a clear definition of the insured values. In this case, strategic issue should be determined within aspects of the insured and reveal its relation with financial aspects. Figure 1 shows this situation.

Then we have to answer the question: How we can be a pioneer to attract more insured in pricing? The next aspect can answer the question: Internal processes. The processes reflect all activities that give organization a competitive advantage in the market. By referring to the insured, we can select one of three aspects of strategic aspects: Operational efficiency (competitive price, excellent quality, right delivery), customer relationship (personnel services, creating trust, institutionalizing solutions and other interactions) and service innovation. Being pioneer in pricing strategies requires focus on operational efficiency in strategy because it helps organization to support competitive pricing. Then organization should define its strategic topics for operational efficiency. This can include reducing non-core activities, improving cycle time, reducing costs and any subject that leads to efficient operations. Figure 2 shows the relations.

How can we improve internal processes? Innovation in teaching and learning is an essential matter that supports and strengthens us to provide a defined strategic issue in aspect of internal processes. To connect other aspects, we need to review different strategies that comply with the current strategic chains. Technical competence (workforce skills and knowledge), innovation and technology (applications and internal process management

Figure 1: An example of the relationship between financial and the insured aspects**Figure 2:** An example of the relationship between financial aspects, the insured and internal processes

systems) and education (cost management) are considered as essential elements. Figure 3 shows this situation.

It is important that we firstly complete strategy chain and ensure that all components of the strategy are coinciding with together. All organizational participants should be able to review and implement strategy chain. It aims to limit subjects and chains to several essential strategic levels, so that total number of topics in the chain should not be more than 20-25 issues. The issues should be related with issues of financial aspect to be recognized as strategic issues. One of case studies in this field is Kan Sai Power Plant, the second largest producer of electricity in Japan. In the late 1990s, this company was involved in the intense competition to produce, transmit and distribute electricity. For the first time, Japan laws forced the company to use monopoly price instead of market price to produce, transmit and distribute electricity. To solve the problem, the company used BSC method and introduced superior position compared to competitors and change management system as its viewpoints. As a result, each unit was authorized to formulate its strategic principles (Morisawa, 2002).

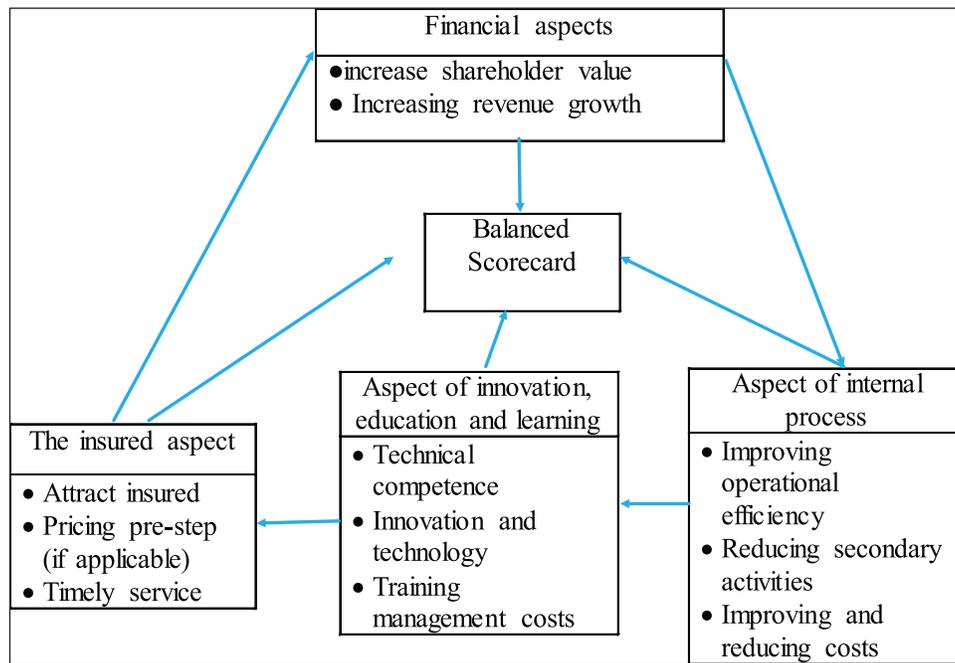
6.2. The Second Stage: Determining Basic Components

The fourth step: Introducing standards - For each strategic issue, we need at least one criterion. If we have multi criteria for a strategic issue, it will be possible that there is more than a strategic issue. One of major challenges to create BSC is to determine

number of desirable standards. BSC requires 4-5 criteria for each aspect and totally, it should not be more than 20-25 criteria for each strategic chain. If there are more criteria, we can change their index to the same criteria. However, indexing is like a double-edged sword that reduces standards, but its results are not clear and provide problems (Evans, 2002).

The fifth step: Determining ideals - Identifying criteria cannot implement them, but it is necessary to transfer organization general criteria to the related units and individuals using a mechanism; as a result, personnel behavior will be changed. This is very difficult because there should be created compliance of purposes between organization and its components. One way to achieve the state is that employees of each unit determine their aspirations independently, instead to dictate organization ideals from top to bottom. The ideals should be marked from bottom to top including all three levels of management (executive, middle and operational). Then these ideals are summarized within framework of overall objectives of organization. Therefore, ideals should be determined by participating all units and in particular, key employees. The perfect spot to select an ideal is to evaluate past performance, so the previous process can be used as a template (Kaplan and Norton, 1996).

The sixth step: Setting programs - This step includes setting certain programs to achieve organizational objectives, standards and ideals. The programs are main plans that facilitate management

Figure 3: Education and learning

of all subordinate affairs. They often include features such as guaranteed by top management, offering, ability to run and range of time. One of key steps to select programs is their planning on strategic issue and evaluating strategic impact. Analyzing value chain is a part of strategic analysis, so it is so important. For this purpose, there should be taken the following steps: Analyzing value chain to identify model structures, evaluate operations in various fields, the insured and employee satisfaction, productivity and financial metrics; Determining quantitative value between different financial and non-financial structures and analyzing their sensitivity; Conducting surveys measure, comparing financial and non-financial operations of the company with other similar companies in the industry (Metrus Group, 2003).

6.3. The Third Stage: Developing BSC

When BSC is designed for the first time, its application should be considered throughout organization. It requires careful planning and compliance with all parts of organization and there should be considered issues such as how to start, coping process, gain public agreement, identify benefits and problems associated with BSC and understanding the provided designs. It may revise evaluating performance criteria. In practice, evaluation criteria are determined in three stages: (1) Examine the existing criteria for performance evaluation; (2) create new standards based on objectives and strategies of organization; and (3) implement new measures practically. In general, the following events may occur during BSC development: Change planning and implementation; it can be as follows: Setting priorities for necessary action based on new strategy; Establish ideals and timetables to achieve them; Determining new strategies and measures to access priorities; Setting new program.

Perform continuous improvement; by examining new programs and evaluating cycle value chain, organization can implement continuous improve programs that have competitive advantages.

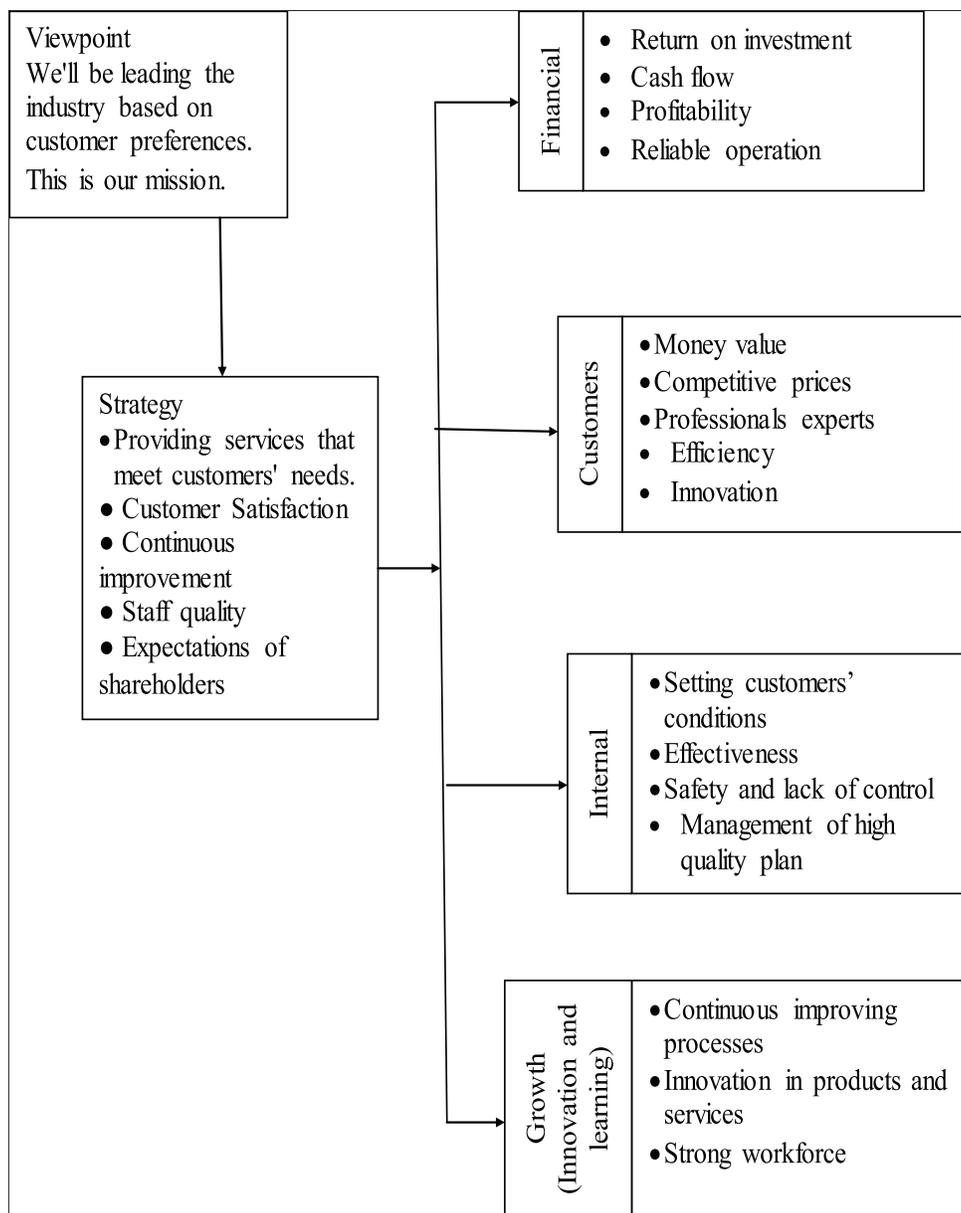
Techniques such as Kaizen and value engineering of human resources can be also used in the process and their results can also be examined (Metrus Group, 2003).

7. APPLICATIONS OF THE BSC

Kaplan and Norton (1992) introduced BSC as a new assessment technique for operational managers. BSC was introduced by examining 12 large and famous American companies including apple computer and general electric. However, BSC was gradually used by companies beyond a technique to assess managers' operations. According to examine 100 major and famous American companies in various industries by Kaplan and Norton (1996), the BSC was introduced as a strategic management system. Since 2001, there has been increased applying the BSC and it has been used as a framework for organizational changes (Namazi, 2003).

Since introduced so far, BSC has been exploited in hundreds companies and even non-profit organizations on different countries. For example, Kaplan and Norton (1993) mentioned applying BSC in hundred companies. For instance, Rock Water Co., an international engineering and construction company specializing in building engineering under water facilities, developed strategic view and four main components of the BSC system (financial, customer, internal and growth) using BSC approach. Figure 4 shows components of the BSC in Rock Water Co., Due to apply the BSC technique, the company could tolerate the fierce international competition, be success among its competitors, connect with its customers properly, response to customers' demands appropriately and convert strategic objectives to evident financial actions. Apple Computer Co., used the BSC as a means to measure long-term operations, rather than a device to measure the current operations. The company has applied BSC for encouraging its top managers to pay attention strategies that are beyond gross operating profit, return on equity and market

Figure 4: Strategic objectives of Rock Walter Co.



share. Apple emphasizes on shareholder value for financial aspects, market share and customer satisfaction for customer aspect, main abilities and competences for internal processes, and perspective of employees for innovation and growth. Adond Micro Device Co., a manufacturer of parts, uses the BSC technology too. The BSC system includes seven sections: (1) Financial criteria; (2) customer criteria; (3) key processes' criteria; (4) product test and control; (5) produce new products; (6) developing technology; (7) quality criteria. In addition, organizational learning is measured by modifying rate of operational factors such as product cycle time and manufacturing process efficiency (Kaplan and Norton, 1993).

In 1992, Sears Co., as one of the largest supermarket chains, announced \$ 3.9 billion as its lost, while its sales was \$52.3 billion. In order to solve its financial problems, the company felt changing organizational culture. Therefore, there was used the BSC technique and there was also defined the relationship

between employees, customers and profits as a chain. Sears Co., found that employees' perception on the relationship between their jobs and organization strategic objectives will have a positive impact on organizational performance. In addition, employees' belief on their job and organization has the biggest impact on their loyalty and service to customers more than other factors. These findings prompted the company to forecast increasing its revenue growth. For example, 5% improvement of staff belief increases 1.3% in customer satisfaction. This will increase 5% revenue growth. The result of using this value chain was that in 1993, the company experienced one of its most lucrative years of its history and of course expressed the story to senior managers that inter-organizational culture should be changed in long-term in accordance with the BSC technique (Rucci et al., 1998). Recent studies have shown that the balanced assessment technique can be applied even in government organizations and nonprofit agencies. For example, Journal of Management at Harvard (2000) reports

that the balanced assessment technique not helped Mobile Oil Company that change its place from the last to the first rank in the industry, but helped Department of Postal Services and Packaging of America to increase its profitability 30-40% within a few years. This technique has been applied to develop strategic planning in universities (Markham, 1998). The United Methodist Printing House used a combination of ABC and the BSC. Although it is a non-profit organization, it used financial structure as one of aspects of the BSC system. The BSC technique can also be used in small companies (Chow et al., 1997). The technique has also been used in insurance companies, banks and engineering companies (Kaplan and Norton, 1993).

The BSC technique has been developed among European, American, Australian and Japanese companies. For example, the largest Japanese companies such as Ricoh, Takarashuzeh, Itoham Food Company and Kansai Power Company use BSC effectively. In addition, Scandia Life Insurance Companies, Philips (Japan), NCR (Japan), OK Electric Industries and Dikinsen Co., have created their balanced assessment technique (Morisawa, 2002).

Due to develop BSC in the world, there are available more than 30 computer software related to the technique that their number is increasing day by day. For this reason, Gartner Co., and Cranfield School of Business Administration have joined together to examine aspects of any SBC software and their sellers carefully and introduce them to the market (Marr and Neely, 2003).

8. NECESSITIES AND BENEFITS OF APPLYING BSC

Is organization strategy includes a strategy correct? What is the insured feel about cooperating with your organization? Do your employees have an incentive to improve their works? Are your initiative thoughts to deliver services used appropriately? How is fast delivering your new products and services to the insured? Can your new technology influence the organization? If you answer the above questions by thinking about them, you will find a good idea that how organization involves in cases that reject old data; and if you believe that organization can have better performance and requires changing management practices on planning and its operations, then implement the BSC.

The most important benefits of implementing BSC can be summarized in the following five points: Creating balance between long, medium and short-term objectives by measuring appropriate performance; Creating non-financial quantitative criteria indicators (process indicator) different with financial indicators; Removing ambiguities and maintaining quantitative indicators; Promoting organizational education by repeating cycle of care hypothesis (i.e. assumptions are corrected as information in beginning and ending each period and its feedback is used to design subsequent corrections); Developing an action plan for strategic communication between administrators and members of the organization.

The first point relates to definition of BSC concept, which has been presented previously and has been clearly discussed by

Kaplan and Norton (1992). The second case emphasizes that main efforts to measure organization performance should be related on consuming resources and their indices, whether financial or non-financial resources. As there was previously difficult to measure performance of logistic sections and cost centers, they can be defined clearly. The third point indicates the fact that all indicators are not used to measure performance. Although non-financial indicators are used to evaluate organization performance, they are not replaced by financial indicators. Those non-financial indicators are used that ultimately affect financial indicators and profitability. Therefore, financial indicators continue to play their decisive role in evaluating performance. The fourth case shows direct flow a series of causal relations such as guidance indicators based on performance indicators that are derived from strategic objectives. Repeating cycle of handle assumptions is not important for the communications, but how understanding organization with performance indicators create a principle with the greatest impact on measuring organization performance. In other words, this aspect of BSC is knowledge management for organizational success that has recently been considered. Finally, the fifth point promotes and encourages the relationship between performance and participation of all parties to develop BSC. Therefore, the BSC can be used to create operational strategy by converting strategies to performance measures and focusing on organization in line with what should be done to improve performance. This technology can also be used in the following cases: Participate and supervise users to select criteria; Set main performance measures with strategy at all levels of an organization; Provide understandable images of company operations; Simplicity communications and understandable objectives and strategies in all levels of organization; Split company criteria to levels such as executives, middle and operational managers; Help employees' perception to understand right things for improving organizational effectiveness.

The BSC can also be used as an umbrella to complete various applications such as quality, redesign and customer service process. As the BSC is a gradual and evolutionary process, it can limit and balance number of criteria and develop them in past, present and future times. BSC is a strong and accepted framework to define performance standards and relate objectives and visions of organization.

9. CONCLUSION AND SUGGESTIONS

For the first time, Kaplan and Norton (1992) introduced BSC. This technique is a tool to follow basic strategic elements and creates metrics that measure overall organization performance. Kaplan and Norton compare BSC with indices and cockpits of a plane that provide complex and diverse information for decision makers. In fact, it can be said that doing right things and doing things right is one of BSC tasks that requires improving institute strategies qualitatively to supply products and services. Today, organizations require unique strategies and operations to survive and meet the future challenges; and BSC is a framework that helps creating necessary balance between strategy and operation.

BSC is a performance management system that can be used in all organizations, especially Social Security Organizations with any

size to adjust views with the insured needs, daily tasks, manage and evaluate organization strategy, control improving operation efficiency, creating organizational capacity and communicative programs for all employees. In other words, BSC may provide fields to study financial criteria, results of the insured and organization capacity simultaneously.

In fact, business is like a football game. If a football club manager wants to be success, he should take a lot of factors together. He is similar a striker, corner player, strong defender and goal keeper. Finally, the factors guide them win the match, not just a good person who scores. It is true about an institution. A manager should put a lot of internal and external sources together. In this process, BSC can help managers for decision-making and implementation.

BSC suggests that managers can choose criteria from four different aspects. They can combine traditional financial measures with performance criteria for customers, internal processes, innovation and development activities.

In other words, BSC standards have been originated from strategic objectives and competitive application. According the needs of managers to select a limited set of basic criteria in all four aspects, BSC help focusing on strategic views.

Traditional financial metrics show what happened at end of fiscal period, without determining how manager can improve future performance; while BSC is basis of the future success of company. In fact, it can be said that BSC is now like a language to evaluate organizations. However, BSC is not a single model that can be used for public institutions or even major industries. The difference between market position, production strategies and competitive environments require different criteria. Therefore, it is recommended that take necessary actions for complying thoughts, strategy, technology and culture of organizations to localize BSC and determine its measures. On the other hand, BSC implementation has several problems including: Determining organization objectives clearly; Ensuring to select the best strategies; Selecting the best objectives and ideals; Compliance with organization objectives and personal goals; Establishing collaborative partnerships in organization; Determining the required financial and non-financial criteria and creating value chain between them; Spending long time and cost to implement the system.

It is suggested that researchers examine possibility of applying BSC in different Iranian organizations in the future, including governmental and non-governmental ones and also explain how it is used. It is also suggested that they examine effect of important structures such as firm size, unit volume and capital structure experimentally that lead to develop BSC in each industry. They

also can analyze advantages and disadvantages of using BSC empirically.

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