Full Length Research Paper

Implementation of balanced scorecard (BSC) in small, auto-parts manufacturing companies: Sahand Khodro Company of Tabriz

Mohammad Taghi Amini1 and Samad Khabbaz Bavil2*

1Department of Social Science and Economics, Payam Noor University, 19395-4697 Tehran, Iran.
2Department of Management, Payam Noor University, 19395-4697 Tehran, Iran.

Accepted 23 March, 2011

Nowadays, many organizations are mainly concerned about codification and implementation of strategies which ensure their success and survival in ever-changing, complex environmental circumstances. Balanced scorecard (BSC) provides a means for organizations to codify and execute strategies in different aspects of the organization and manage their strategic performance. In order to implement the BSC in Sahand Khodro Company, we executed five principles of strategy-focused organizations in the following order: 1) Translate the strategy to operational terms, 2) redirect the organization for the materialization of the strategy, 3) make the strategy the everyday job of everybody, 4) convert the strategy into an incessant process and 5) mobilize the organization for change by leadership and management. By implementing the Balanced Scorecard, Sahand Khodro Company was able to achieve greater profitability and better response in relation to all the beneficiaries involving customers, employees, director and owner of the company, and the society.

Key words: Balanced scorecard (BSC), strategy map, auto-parts manufacturing industry, strategy-focused organizations, Tabriz.

INTRODUCTION

With the emergence of post-industrial era, the organizational environment has been dynamic, full of changes, and complexity has been the predominant issue in organizations. Changes have been so intense that, predicting functions have lost their validity and new unexpected challenges have emerged. Markets have become intensively competitive; learning faster and earlier than other rivals, has provided advantages in competition and, consequently, organizations have focused on science, knowledge and information. Nowadays, many organizations are mainly concerned about codification and implementation of strategies which ensure their success and survival in ever-changing, complex environmental circumstances. Balanced scorecard (BSC) provides a means for organizations to codify and execute strategies in different aspects of the organization and manage their strategic performance (Karathanos and Karathanos, 2005). This is a framework for performance evaluation which uses a series of financial and non-financial scales to take a deep look at the performance of the organization. One of the issues which hinder the execution of strategies in organizations is that it remains in a general level of actions and orientations. In response to this problem, the BSC attempts to illustrate the organization strategies in terms of cause-effect relations and show how these strategies can change into measurable objectives and specified operations which must be followed by organizational units and also employees (Robert and David, 2001). The BSC is very useful for all the organizations which suffer from the unclear relations between their codified strategies and executive, everyday operations.
operations (Robert and David, 2001). The BSC not only allows the establishment of this kind of relation and picturing the strategy, but also is a means to test the logic and productivity of codified strategies and to supplement them, if necessary.

A Look at the auto-parts manufacturing industry and Sahand Khodro Company

Today, the automotive industry has a great role in the economy of countries all around the world. Likewise, the automotive industry of Iran has an important role in the production and employment status of the country. Automobile manufacturing companies submit the production of required parts for assembling the automobiles to auto-parts manufacturing companies in order to reduce their production expenses and increase the quality of their products. Therefore, the auto-parts manufacturing industry has always been known as the supplement of the automotive industry. Auto-parts manufacturing companies are smaller than automobile manufacturing companies in scale but are greater in number and provide more employment compared to automobile manufacturing companies. Auto-parts manufacturing companies shall choose appropriate strategies regarding their actual and future situation and circumstances. Appropriate strategies help their survival and development in the competitive field of auto-parts manufacturing industry. Sahand Khodro Company of Tabriz is an auto-parts manufacturing company which produces parts for Pride, Peugeot and also tractors. This company is geographically situated in the south-east of Tabriz, in the industrial site of Shahid Rajaee. Sahand Khodro Company is a small company in size, acts as a workshop and has a staff of 24 people. The BSC has been used to codify and implement the strategy of Sahand Khodro Company. The BSC is a highly effective method in codifying and implementing appropriate strategies in various organizations with different scales. The necessary information for the codification and implementation of the Sahand Khodro Company strategy was obtained by studying the general conditions and characteristics of the Iranian Auto-parts Manufacturing industry and its active companies; and also through interviews with executive director, production manager, quality manager and the employees of this company. It is hoped that by codifying and implementing an appropriate strategy through the use of the BSC, Sahand Khodro Company could turn into a primary and successful company in the auto-parts manufacturing industry of the country and serve the Islamic community of Iran.

Mission statement of Sahand Khodro Company

Sahand Khodro Company's organizational belief is based on satisfying its customers by providing their needs and considers the satisfaction of its customers as the key to the company's success. Also, the company regards its personnel and man force as its greatest capital and intends to make them effective, capable and enthusiastic by increasing their authorities and capabilities through related education and providing their welfare. Sahand Khodro Company will try to improve the quality of its auto parts and reduce the production costs and the final price of its products, and thus increase its profitability. In addition to maximizing its development and profitability, the company pays special attention to social, moral and religious issues and values of the society and a clean environment, so to gain credit and reputation among people and fulfill its duty and responsibility towards the society. Sahand Khodro Company intends to turn into a creative, innovative organization in order to become a vanguard company in the internal competitive market in the near future, and in the long run, gain a better position in the auto-parts manufacturing industry of Asia and the world.

THE STRATEGY OF SAHAND KHODRO COMPANY OF TABRIZ

The Strategy of Sahand Khodro Company is: 60% increase in the net profit in a course of two years. This strategy is based on the two following principles:

1. Reducing the final price and improving profitability based on the value chain of the company,
2. Producing a higher amount of products (actual – new)

In order to implement the chosen strategy of Sahand Khodro Company, the BSC was applied. If the implementation of the strategy using this method is proves successful, the profit margin of the company will increase in both of the above principles and Sahand Khodro Company will become a strategy- focused organization. In order for Sahand Khodro Company to become a strategy- focused organization through the use of the BSC, five principles of strategy- focused organizations must be taken into consideration. These principles are (Robert and David, 2001):

1. Translate the strategy to operational terms.
2. Redirect the organization for the realization of the strategy.
3. Make the strategy the everyday job of everybody.
4. Convert the strategy into an incessant process.
5. Mobilize the organization for change by leadership and management.

Principle (1): Translate the strategy into operational terms

To implement its strategy, Sahand Khodro Company
should translate the strategy into phrases which are clearly understandable by all of its employees. Thus, Sahand Khodro Company of Tabriz applies the BSC to provide a framework for the conscious and continuous analysis and transmission of the strategy. The new framework is a logical and exhaustive structure for the analysis of the strategy which is known as the strategy map. The strategy map provides the design base of the balances assessment method which is considered the cornerstone of a new system of strategic management (Robert and David, 2001; Papenhausen and Einstein, 2006). The strategy map and its related BSC establish the assessment and evaluation technology for management in knowledge-based economy (Robert, 2008). By translating its strategy into the logical structure of the strategy map and the BSC, Sahand Khodro Company creates a common, tangible reference point for all its employees and personnel. Here, we have translated the strategy of Sahand Khodro Company into operational objectives and evaluators from four aspects of the strategy map.

Financial aspect

Gaining acceptable financial outcomes in economic companies and organizations is extremely necessary for their survival and development; therefore, financial evaluators are an integral part of the balanced assessment system in profit-making organizations (Robert, 2008). Sahand Khodro Company started its BSC by defining its high financial targets that is 60% increase in the net profit in a course of two years. The director of Sahand Khodro Company was aware of the fact that increasing the profit in such level, considering the long history of auto-parts manufacturing industry and the existence of numerous, big competitors and also the large number of new and small rivals was truly a difficult task. Sahand Khodro Company determined a financial growth target for the company in producing and selling products to its customers, other than the Spindle. For example, parts like spacer washer, differential case pin, etc. Sahand Khodro Company determined a financial growth target for developing revenue sources from these lateral products which is assessed by the evaluator of production revenues other than the Spindle and their profit margin. Therefore, the financial aspect involved objectives and evaluators for both strategies of growth and productivity. The strategy map of the financial aspect of Sahand Khodro Company of Tabriz is shown in Figure 1.

Customer aspect

The customer aspect enables organizations to evaluate and improve the main evaluation criteria of the customers’ status such as satisfaction, loyalty, keeping and maintenance, getting new customers, etc. (Silk, 1998). Sahand Khodro Company should try to secure the consent of customers who are generally sensitive to both price and quality by reducing the final price throughout the value chain, including the Spindle, and also by increasing the quality of its products and reducing the wastage. Thus, for the customer aspect, Sahand Khodro Company selected the market share evaluator for all of its products. However, the important point is that Sahand Khodro Company cannot solely rely on the market share evaluator in its customer aspect. The company needs to define values which should be considered in attracting and keeping the customers and building good relations with them in the target market. These values are as follows:

1. On-time delivery of orders
2. Proper documentation regarding products and customers
3. Friendly and capable employees
4. An internet website for the company
5. The possibility of a quick and easy purchase for the customers
6. Reputation and credit of the company

In this situation, Sahand Khodro Company will have a
series of simple objectives and evaluators for assessing the customers' attitudes. One of these evaluators is related to the market share and the other is a summary of the customers' desired values (the company's rank given by customers) and is expected to motivate and lead to acceptable results. The strategy map of the customer aspect of Sahand Khodro Company of Tabriz is shown in Figure 2.

The aspect of internal business procedures

The internal procedures create and present the acceptable values to customers. The performance of internal procedures is an effective factor in improving the subsets in the financial and customer aspect of the BSC (Robert, 2008; Robert and David, 2004; Robert and David, 1996). In the internal procedures, Sahand Khodro
Company has described numerous objectives and evaluators for the part-production operations and presenting them to the customers. These evaluators have an emphasis on low final price, proper and stable quality, short stop-time for equipments, very few dangerous and health-impairing events, safety and the environment. Since increasing the final price of the company's products was not possible, Sahand Khodro Company decided to increase its profit by stabilizing the prices and reducing their total costs. Sahand Khodro Company also intends to increase its financial and revenue sources by increasing the variety of its products. Quality evaluators such as observing the technical characteristics and on-time exposition of products supported some of the customers' desired values, but most of them were related to the operational prominence in production and distribution operations. Significant objectives relating environmental, health and safety factors used evaluators such as the number of safety events, work environment satisfaction of employees and the number of the workers' holidays. On the other hand, some benefits resulting from the improvement of environmental, health and safety performance were effective in lowering the final cost and increasing the productivity. The strategy map of the aspect of the internal procedures of Sahand Khodro Company is shown in Figure 3.

* Objectives
  - Evaluators

**Learning and growth aspect**

The most fundamental objectives involve those which are categorized as the aspect of learning and growth, such as: skill and creativity of employees, organizational culture, team-work, etc. This aspect is the final source of creating constant values (Robert and David, 2004; Braam and Nijssen, 2004). In implementing the BSC in Sahand Khodro Company, three groups of strategic objectives were determined in the aspect of learning and growth:

1. Critical abilities and skills
   a. Helping and encouraging employees in gaining wider knowledge about the production business and auto-parts sale.
The aspect of learning and growth: a ready and motivated work-force

<table>
<thead>
<tr>
<th><em>organizational capital and proper work environment</em></th>
<th><em>information technology and resources</em></th>
<th><em>development of human resources</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluators:</td>
<td>Evaluators:</td>
<td>Evaluators:</td>
</tr>
<tr>
<td>- Proper organizational culture</td>
<td>- Improvement of information processing</td>
<td>- Training employees</td>
</tr>
<tr>
<td>- Smart and intuitive leadership</td>
<td>- Directors and employees’ proper access to information</td>
<td>- Increasing the capabilities of employees</td>
</tr>
<tr>
<td>- Team-work among employees</td>
<td></td>
<td>- Creating self-control</td>
</tr>
<tr>
<td>- Organizational unison (employees and directors)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 4.** The strategy map: the aspect of learning and growth.

b. Creating skill levels and capabilities that is essential for mission execution.
c. Developing the necessary skills in order to improve the integral thought of employees about business and education.

2. Access to strategic information

a. Developing necessary strategic information for executing the strategies

3. Organizational empathy

a. Promoting a realization about the strategy of the organization, through creating an environment in which capable and motivated employees are working to materialize the mission statement.

Evaluators supporting these three targets were the most difficult ones that had to be determined. Ideally, Sahand Khodro Company wanted to determine the personal skills and information which one should have in order to improve the performance of internal procedure and transmission of the customers’ desired values. The strategy map and the evaluators of the aspect of learning and growth of Sahand Khodro Company are shown in Figure 4.

By presenting all the objectives and evaluators in one map and establishing a relation among them, the strategy map of Sahand Khodro Company is formed which clearly expresses how the company achieves its strategic objectives.

**Principle (2): Redirect the organization for the realization of the strategy**

The BSC in Sahand Khodro Company provides a means to create strategic awareness, establish the necessary skills for the employees and personnel of the company, and also coordinate different strategies together and with the whole strategy of the company and its mission. The assessment criteria determined by the leading team provides a framework for establishing strategy in the company. These assessment criteria created a series of principle objectives which were similar in all parts of the organization. These objectives were as follows:

1. Gaining financial revenue
2. Providing satisfaction for customers
3. Developing win-win relations with customers and providers
4. Improving essential internal procedures i.e. low final cost, zero wastage, on-time delivery
5. Reducing events harmful to the environment, health and safety
6. Improving the spirit of the employees

These objectives are transmitted to all the personnel of the company through considering them in the evaluators of the balanced assessment and the employees will duly perform their responsibilities towards the company.

**Principle (3): Make the strategy the everyday job of everybody**

The third principle of a strategy-focused organization is to connect all employees to the single business strategy and the total strategy of the company. Everybody has to understand the strategy of the organization and help the company achieve its strategic objectives (Robert and David, 2001; Fernandes et al., 2006). The Balanced Scorecard is used to establish a relation among employees and transmit the strategic objectives to them,
The strategy-focused organization wants the employees to coordinate their everyday job with the realization of strategic objectives and find new opportunities between tasks and units in order to achieve organizational objectives (Robert and David, 1996; Banker et al., 2004). Sahand Khodro Company uses a consistent, exhaustive process based on the Balanced Scorecard for its communications so as to ensure that everyone in the organization has understood the strategy. In the monthly meetings of Sahand Khodro Company, employees receive a one-page brochure containing a summary of plans to be executed. These brochures summarize the assessment criteria as:

1. Financial (profitability)
2. Customer (providing satisfaction for customers; win-win relation with customers and providers)
3. Internal business procedures (low final cost; safe and reliable; on-time and in accordance with characteristics)
4. Learning and growth (ready and motivated employees)

Furthermore, these brochures improve the fact that how Sahand Khodro Company intends to evaluate the progression of affairs in the direction of its strategic objectives. The brochures, clearly and acceptably convey the company's directions to the employees. In this respect, the chief executive officer (CEO) of Sahand Khodro Company had to surmount the employees' doubt, natural skepticism and grumbling towards another new plan (that is, the BSC). For the implementation of the third principle of strategy-focused organizations, communications with the staff, determining their personal objectives, and finally connecting the service compensation system to workers' efforts was required (Braam and Nijssen, 2004; Malmi, 2001). When these tasks are successfully accomplished, everyone will make the strategy their everyday job. Simply put, as far as the service compensation system has not been connected to the balanced assessment, the employees will not believe in the company. If connected, they will know that the company is determined to practically implement its plans.

Principle (4): Convert the strategy into an incessant process

The BSC emphasizes on pervasiveness, problem-solving in groups, and guidance in implementing the strategy and changing it into an incessant process. The revision meetings of Sahand Khodro Company focus on the future. In these meetings, issues such as the following are discussed: discovering how to implement the strategy in an effective way, and based on past findings, what changes should occur so that the implementation of the strategy becomes a consistent process and not an incidental one. The managing team of Sahand Khodro Company require challenging issues to see whether the organization is moving in the determined path toward long-time success or new ideas, knowledge, opportunities and threats have emerged that necessitate a strategic change. The Balanced Scorecard provides the program for meetings designed to address these feedbacks and findings. In sum, the strategy in strategy-focused organizations is a continuous process, not an annual occurrence (Robert, 2008; Papalexandris et al., 2004).

Principle (5): Mobilize the organization for change by leadership and management

Experience has shown that the most significant condition for the organization's success in implementing the BSC is the active participation of top level management (Karathanos and Karathanos, 2005). Strategy requires team work for causing changes; and implementation requires all-time attention and focus over plans and evolutionary attempts and the performance of the organization compared to planned results. If those at the head of the organization prove inactive for such a process, no changes will occur, the strategy will not be implemented, and the opportunity for successful performance will be lost. In the monthly meetings of Sahand Khodro Company, the executive director clearly expressed the necessity of change in the organization. When the evolution process was initiated, the executive director established a management process for directing the company towards the desired position. This process defines, illustrates and improves new cultural values in the organization. To make changes in Sahand Khodro Company, the executive director mobilized all his staff and did the following:

1. Creating a feeling of a necessary need for change in the company.
2. Forming a guided commission to create change in the company.
3. Codifying the mission statement including the company's objective and perspective and a strategy to achieve the mission statement.

CONCLUSION

After implementing the BSC in Sahand Khodro Company of Tabriz, the method became a program for the company's monthly meetings to discuss total objectives, evaluators and quantitative goals, and also expressing the ideas of the personnel. These meetings were called the balanced assessment meetings. Sahand Khodro Company created a common reference point for its employees by translating its strategy into a logical structure of a map strategy and balanced assessment.
Breaking old power-based structures, forming strategy teams and open communications in public meetings are among other actions of Sahand Khodro Company in the implementation process of the BSC. By connecting traditional processes like the service compensation system and dedicating resources to the BSC explaining the strategy, Sahand Khodro Company created a strategic management system in the company. The BSC explained the strategy and at the same time, the new management system connected all the organization components to the specified criteria in the strategy. In a course of 6 months after the execution of the BSC in Sahand Khodro Company, the following results were obtained:

1. The production rate of the main product showed a 14% growth compared to the same period in the previous year and the final cost of the product was reduced by economization in the production scale.
2. According to the facilities and machinery of the company, a new product was added to its productions and the production rate of two lateral products was increased.
3. All orders were delivered to the customers on time and the quality of all the sent goods were confirmed by customers.
4. The rate of the produced parts not in accordance with the characteristics (wastage) showed 40% decrease compared to the same period last year.
5. The safety events in the company showed 50% decrease and the number of employees' holidays showed 30% decrease compared to the same period in the previous year.
6. Creativities and intuitions of employees in their everyday tasks were supported in a way that out of 16 suggestions, 12 cases were confirmed by the director of the company.
7. Three training courses were held for employees in applying the BSC, increasing crucial capabilities and skills, using strategic information, and creating an empathy atmosphere and team work.
8. An atmosphere and culture of competition in achieving the determined criteria in the BSC was created for employees in the organization and the personnel tried their best in order for the realization of the strategy.

REFERENCES