

Codification of the Strategy Map in Small, Auto-parts Manufacturing Companies (Case Study: Sahand Khodro Company of Tabriz)

¹ Samad Khabbaz Babil * and ² Armin Rajabzadeh and ³ Mohammad Behravesht

¹ MSc of Management (MBA), lecturer of Management, Department of Social Science and Economics, Payam Noor University, Ahar Branch, Ahar City, East Azerbaijan, Iran.

E-mail: s_khabbaz@pnu.ac.ir.

² MSc of Management (MBA), lecturer of Management, Faculty of Social Science, Department of Marketing Management, Payam Noor University, Varzeghan Branch, Varzeghan City, East Azerbaijan, Iran.

E-mail: a_rajabzadeh@pnu.ac.ir.

³ MSc Student of Industrial Engineering, Department of Industrial Engineering, University of Amirkabir Technology, Tehran, Iran. E-Mail: behravesht@aut.ac.ir.

Abstract: 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 strategy map 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. By translating its strategy into the logical structure of the strategy map, Sahand Khodro Company created a common, tangible reference point for all its employees and personnel. In this study, we have translated the strategy of Sahand Khodro Company into operational objectives and evaluators from four aspects of the strategy map. By codifying the strategy map, 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.

[Samad Khabbaz Babil and Armin Rajabzadeh and Mohammad Behravesht. **Codification of the Strategy Map in Small, Auto-parts Manufacturing Companies (Case Study: Sahand Khodro Company of Tabriz)**. Journal of American Science 2011;7(5):260-267]. (ISSN: 1545-1003). <http://www.americanscience.org>.

Key Words: Strategy, Strategy Map, Auto-Parts Manufacturing Industry, Small Companies, 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. The strategy map provides a means for organizations to codify and execute strategies in different aspects of the organization and manage their strategic performance [1]. 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 strategy map 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 [2]. The strategy map is very useful for all the organizations which suffer from the unclear relations between their codified strategies and executive, everyday operations [3]. The strategy map not only allows for the establishment of this kind of relation and picturing the strategy, but also is a means to test the logic and effectuality 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 very 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 Rajaei. Sahand Khodro Company is a small company in size, acts as a workshop and has a staff of 24 people. The strategy map has been used to codify and implement the strategy of Sahand Khodro Company. The strategy map 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 codifying the strategy map, 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 productivity. 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 productivity 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 strategy map has been applied. If the implementation of the strategy using this method proves successful, the profit margin of the company will increase in both of the above principles and Sahand Khodro Company will become a strategy-based organization. In order for Sahand Khodro Company to become a strategy-based organization, the strategy shall be translated into operational terms.

Codification of the Strategy Map of Sahand Khodro Company of Tabriz

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 should 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 balanced assessment method which is considered the corner stone of a new system of strategic management. The strategy map provides a means to analyze the process of value formation through the use of invisible assets, from the point of view of the company owner. The strategy maps establish the assessment and evaluation technology for management in knowledge-based economy. By translating its strategy into the logical structure of the strategy map, 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.

The 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 codification of the strategy map in profit-making organizations [3, 4, and 5]. Sahand Khodro Company started its strategy map by defining its high financial

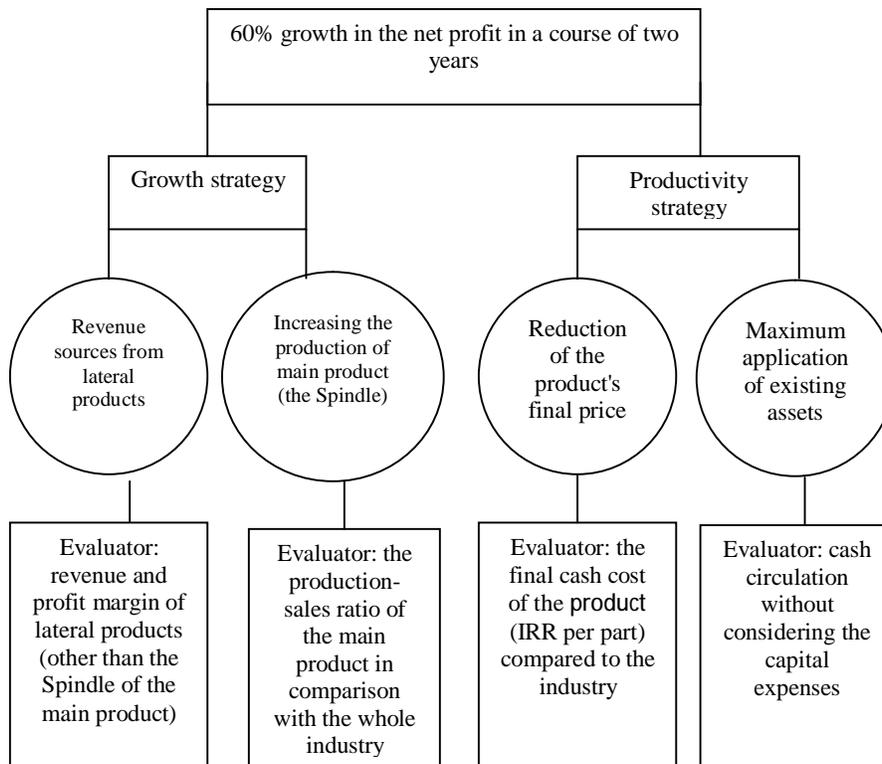
targets i.e. 60% increase in the net profit in a course of two years. The director of Sahand Khodro Company was aware of the fact that increasing the profit in such level, considering the long history of auto-parts manufacturing industry and the existence of numerous, big competitors and also the large number of new and small rivals was truly a difficult task. Sahand Khodro Company decided to improve its net profit through two financial purports: productivity and growth. The productivity purport was consisted of two elements:

1. Reducing the final cost,
2. Increasing the application of assets

The reduction of the final cost could be evaluated through a comparison between the company's cash operational costs and the average of the related industry. The productivity of assets enabled Sahand Khodro Company in achieving a higher level of activity in accordance with its strategy without increasing the levels of its assets. To achieve this goal, Sahand Khodro Company can use the cash circulation evaluator, without considering capital expenses, in order to indicate the benefits related to cash making resulted from the existing assets plus the profit resulting from the reduction of the commodity supply.

The financial growth aspect of Sahand Khodro Company involves two different components. First, is the growth in the rate of the production operations with the aim of increasing the sales of its main product i.e. the Spindle (In Persian: Meel-Mahak). In addition to the mere growth in the production operations, Sahand Khodro intends to increase the sales rate of its main product compared to other rival producing companies. Thus, it uses the production - sales ratio evaluator in comparison with the whole industry. The second component of growth indicates the opportunity and possibility of the company in producing and selling products to its customers, other than the gearshift rod. For example, parts like spacing 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 revenues from products other than the gearshift rod 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 below:

The Strategy Map: The Financial Aspect



The 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 [6]. Sahand Khodro Company should try to secure the

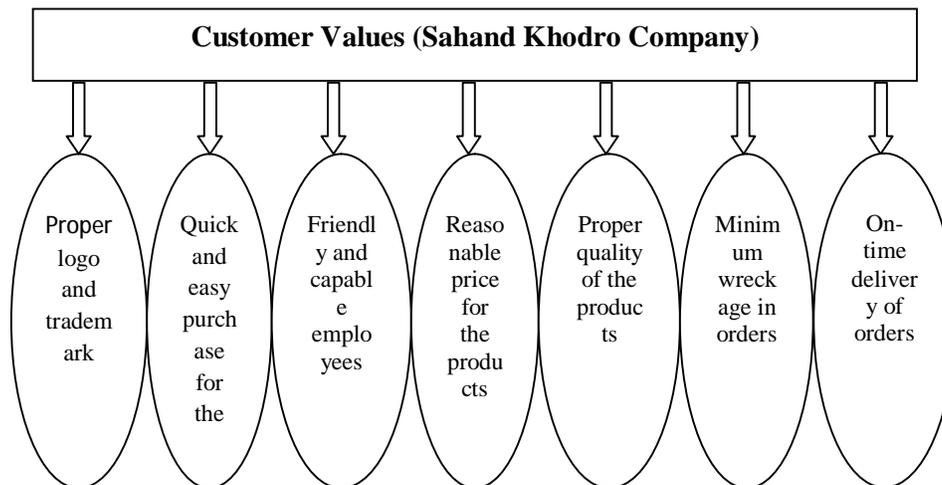
consent of customers who are generally sensitive to both price and quality by reducing the final cost throughout the value chain, including the gearshift rod, and also by increasing the quality of its products and reducing the wastage. Thus, for the customer aspect, Sahand Khodro Company selected the 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 documentations 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 given below:

The Strategy Map: The Customer Aspect

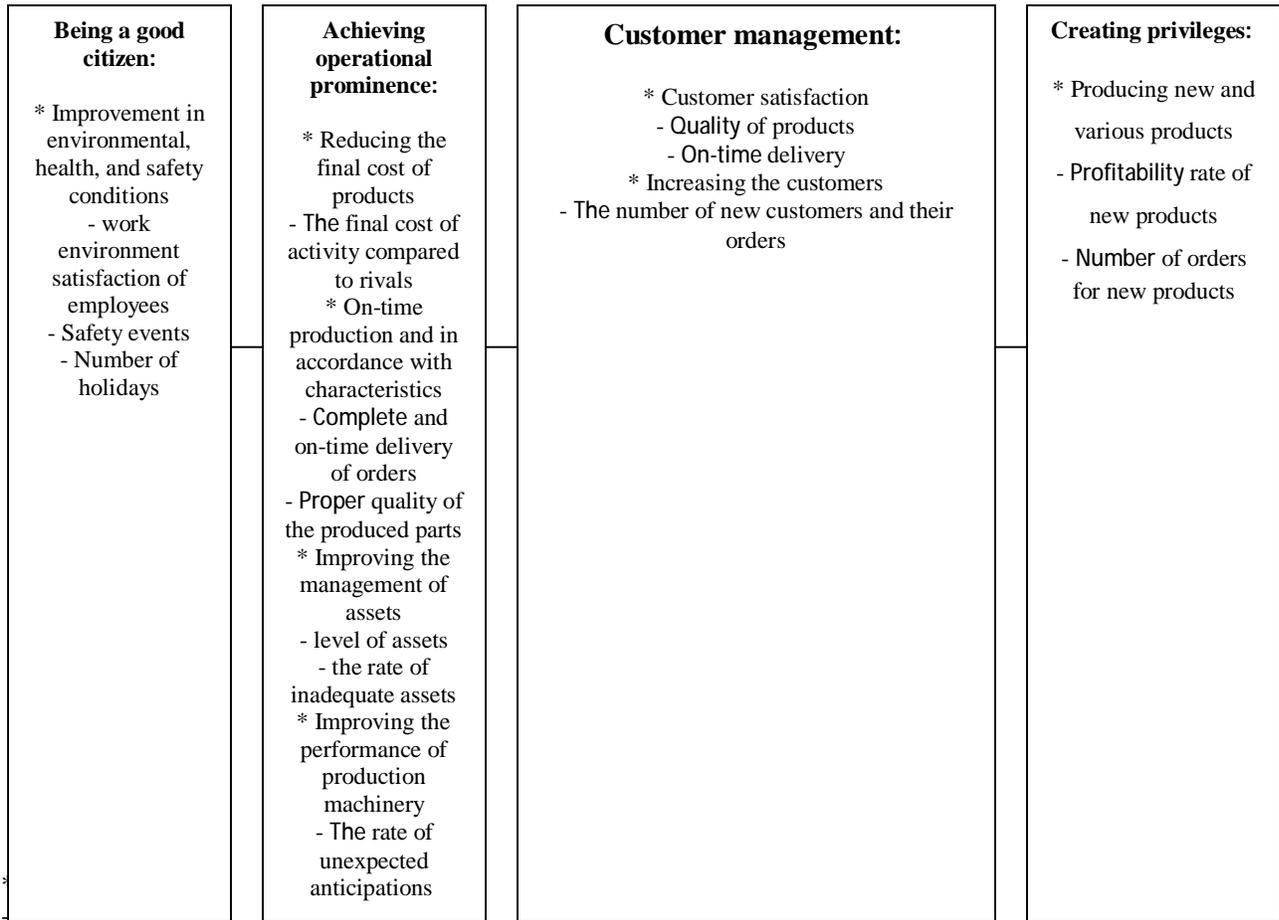


The Aspect of Internal Business Procedures

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 codification of the strategy map [5, 7, and 8]. 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 cost; 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 demonstrated below:

The Strategy Map: The Aspect of Internal Procedures



The Aspect of Learning and Growth

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 [7, 9]. In codifying the strategy map in Sahand Khodro Company, three groups of strategic objectives were determined in the aspect of learning and growth:

1. Critical abilities and skills
 - Helping and encouraging employees in gaining wider knowledge about the production business and auto-parts sale
 - Creating skill levels and capabilities that are essential for mission execution.
 - Developing the necessary skills in order to improve the integral thought of employees about business and education.
2. Access to strategic information
 - Developing necessary strategic information for executing the strategies
3. Organizational empathy
 - 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 below:

The Strategy Map: The Aspect of Learning and Growth

The aspect of learning and growth: a ready and motivated work-force		
* organizational capital and proper work environment Evaluators: <ul style="list-style-type: none">- Proper organizational culture- Smart and intuitive leadership- Team-work among employees- Organizational unison (employees and directors)	* information technology and resources Evaluators: <ul style="list-style-type: none">- Improvement of information processing- Directors and employees' proper access to information	* development of human resources Evaluators: <ul style="list-style-type: none">- Training employees- Increasing the capabilities of employees- Creating self-control

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.

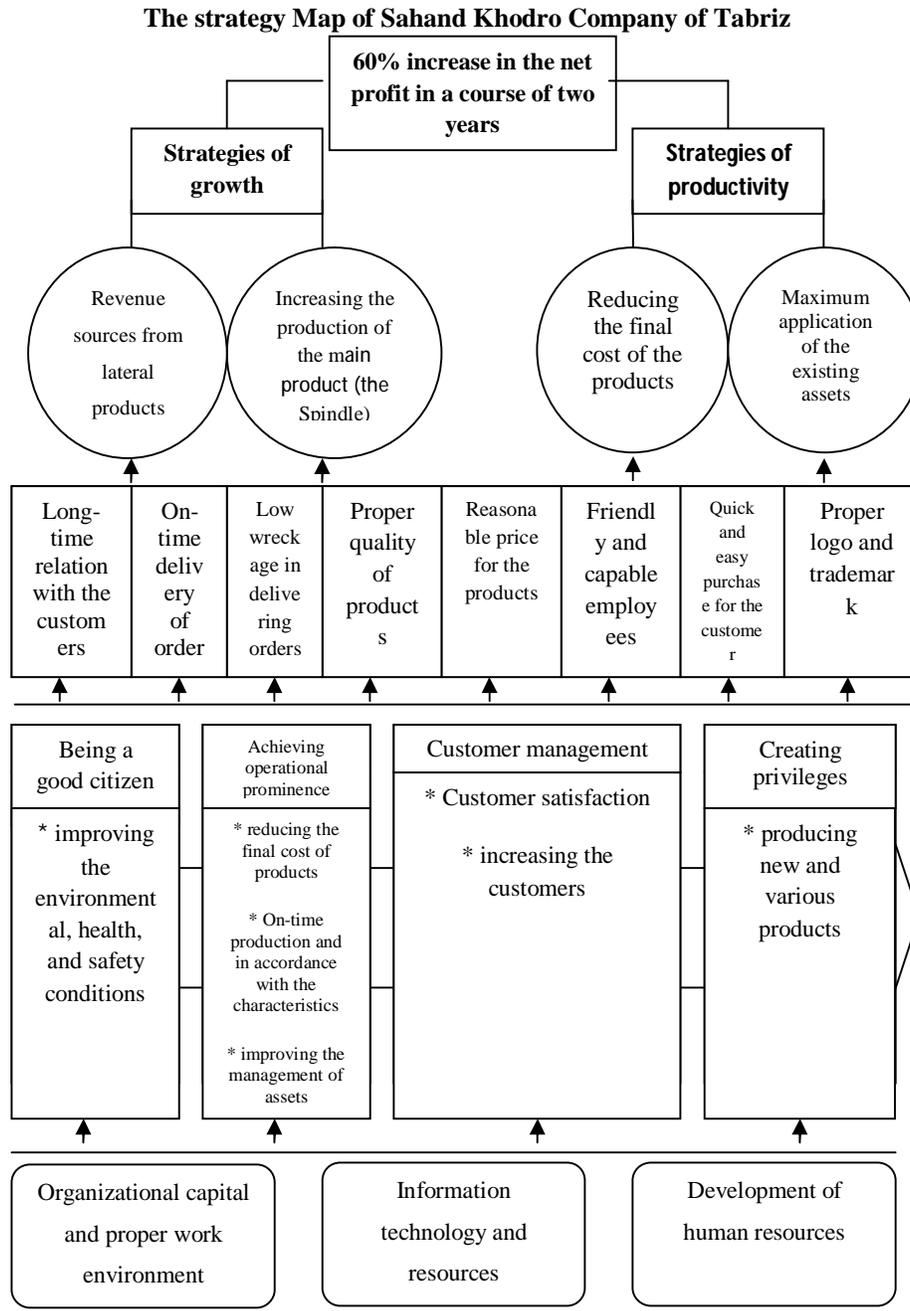
Conclusion

Sahand Khodro Company created a common reference point for its employees by translating its strategy into a logical structure of a strategy map. By connecting traditional processes like the service compensation system and dedicating resources to the execution of the codified strategy map explaining the strategy, Sahand Khodro Company created a strategic management system in the company. The strategy map explained the strategy and at the same time, the new management system connected all the organization components to the specified criteria in the strategy map. In a course of 6 months after the execution of the strategy map 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 and thus, the wastage costs of the company decreased.
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 strategy map, 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 strategy map was created for employees in the organization and the personnel tried their best in order for the realization of the strategy.

Corresponding Author:

MSc of Management (MBA), lecturer of Management, Department of Social Science and Economics, Payam Noor University, Branch of Ahar, Ahar City, East Azerbaijan (Azerbaijan-Sharqi), Iran. Address: No.10, Ehsan5 Alley, Ehsan St, Vanak Square, Baghmishe Town, Tabriz City, East Azerbaijan (Azerbaijan-Sharqi), Iran. P.O. Box: 5158657613. Phone Number: +989141004456. E-mail: s_khabbaz@pnu.ac.ir.



References

1. Karathanos, Demetrius & Karathanos, Patricia (2005). "Applying the Balanced Scorecard to Education", Journal of Education for Business. 80 (4), 222-230.
2. Robert S. Kaplan, David P. Norton (2001). "Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: part I", Accounting Horizons, 15(1), 87-103.
3. Robert S. Kaplan, David P. Norton (2001). "The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the new Business Environment", Harvard Business School Press, USA.
4. Papenhausen, Chris & Einstein, Walter (2006). "Insights from the Balanced Scorecard: Implementing the Balanced Scorecard at a College of Business", Emerald Group Publishing Limited 10 (3), 15-22.

5. Robert S. Kaplan. (2008). **"Strategy Execution and the Balanced Scorecard"**, Harvard Business School, USA.
6. Silk, S., (1998). "Automating the balanced scorecard", *Management Accounting* 79 (11), 38–44.
7. Robert S. Kaplan, David P. Norton (2004). **"Strategy Maps: converting intangible assets into tangible outcomes"**, Harvard Business School Press, USA.
8. Robert S. Kaplan, David P. Norton (1996). **"Translating Strategy in to Action the Balanced Scorecard"**, Harvard College; USA.
9. Braam, G., Nijssen, E., 2004. **"Performance effects of using the balanced scorecard: a note on the Dutch experience"**, *Long Range Planning* 37 (4), 335–349.
10. K.J, Fernandes, V, Rajab and A. Whalley., (2006). **"Lessons from implementing the balanced scorecard in a small and medium size manufacturing organization"**, *Technovation* (26), 623–634.
11. A. Gunasekaran, L. Forker, and B. Kobu. (2000). **"Improving operations performance in a small company: a case study"**, *International Journal of Operations & Production Management*, Vol. 20, No 3, pp. 316-335.
12. Banker, R., Chang, H., Janakiraman, S., Konstans, C., (2004). **"A balanced scorecard analysis of performance metrics"**, *European Journal of Operational Research* 154 (2), 423–436.
13. Malmi, T., (2001). **"Balanced scorecards in Finnish companies"**, *Management Accounting Research* 12 (2), 207–220.
14. Papalexandris, A., Ioannou, G., Prastacos, G., (2004). **"Implementing the balanced scorecard in Greece: a software firm's experience"**, *Long Range Planning* 37 (4), 292–293.

3/9/2011