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The determination of performance measures by using a balanced scorecard framework

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THE DETERMINATION OF PERFORMANCE MEASURES BY USING A BALANCED SCORECARD FRAMEWORK

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Abstract: The aim of this study was to determine the contributions of the balanced scorecard (BSC) methods to identify the relationship between the objectives and activities and examine how the BSC should be formed in a manufacturing company. The BSC framework was examined via a case study in a yarn manufacturing company. The activities to be carried out by the company to achieve its objectives and how the appropriate measures are determined in evaluating the contribution of the activities to the achievement of objectives are explained under the BSC approach. The BSC implementation and adaptation have facilitated in a family owned company because of its fast decision-making process. Objectives are made clear in accordance with the company's strategy and causal relationship between objectives and activities are linked by the strategy map. The BSC implementation shows that financial measures are not enough to evaluate the effects of all the activities on the objectives in a company. The cooperation between departments in the company and the efficiency of corporation meetings increases. The meetings have become more result-oriented due to clarifying objectives and responsibility of individual levels.

Keywords: balanced scorecard, performance measures, strategy maps, strategic planning, manufacturing.

JEL: M10, M4.

1 Introduction

Performance management is described as a system to ensure improving the performance of the enterprise as a whole by improving individual or departmental performances (Chriyha, Beidouri, and Bouksour, 2012). The performance management of a business is carried out depending on its vision and strategies. The definition of success for each organization and corresponding performance management vary by reason of vision and strategies differ from business to business (Kopia, et al., 2017).

Numerous performance management frameworks focus on monetary measurements to evaluate the performance of a company. Examples of basic financial measures used in performance evaluation are net and gross profit, debt to equity ratio, revenue growth rate, earnings before tax (EBT), return on investment (ROI), and return on equity (ROE) (Kopia, et al., 2017). In the industrial age, while conventional financial indicators are sufficient for performance measurement, they are not sufficient to evaluate the competitiveness and capabilities of today's companies (Kaplan and Norton, 1992). Businesses face several failures in implementing their strategies. Hence, companies should use financial and non-financial measures and balance long-short term objectives based on their mission and vision to assess the achievement of the performance management (Karabay and Kurumer, 2012).

Lately, industrial organizations not only use financial performance indicators but social and environmental factors as well (Chriyha, Beidouri and Bouksour, 2012). A more comprehensive perspective that includes financial indicators, as well as non-financial indicators, is for the first time introduced by Drs. Robert Kaplan and David Norton in order to assess the performance of the organization (Narayanamm and Lalitha, 2016).

The balanced scorecard (BSC) is a strategic performance management framework that includes measures of strategies of a company on how to reach its objectives (Kaplan and Norton, 1993). The intangible assets are as important as tangible assets and the basic question is how to measure them (Kopia, et. al., 2017). Understandable mission, vision, and

objectives for every department of the enterprise create a comprehensiveness in the enterprise (Costa Oliveira, 2014).

The literature review shows that researchers have created the BSC framework in different industries and companies such as environmental education, fuel distribution industry, cooperatives, small businesses (e.g., de Andrade Guerra, et al., 2018; Evangelista de Barros and Wanderley, 2016; Dhamayantie, 2018; Malagueño, Lopez-Valeiras, and Gomez-Conde, 2017). Aurelia, et al. (2018) have demonstrated that Italian network of small and medium enterprises (SME) has benefited by the BSC to develop the network strategy formulation for the implementation of the performance measurement system. Gupta and Salter (2018) have developed a model of the relationship between organizational culture and the use of the BSC. Quesado, Guzmán and Rodrigues (2018) have found that BSC is an effective strategic management tool to translate the mission and strategies and to improve communication, strategic alignment and organizational learning. Yancy (2017) has represented that identifying the effects of firm characteristics on the propensity of adopting BSC.

According to the literature review, no study has been found that explains the adaption of BSC for a small and medium-sized textile company. For this purpose, the study aims to fill the gap in the literature. Therefore, this study focuses on examining whether a cause and effect relationship exists between objectives and current activities of the company by using strategy maps, for which measures and targets could be determined to evaluate the performance of the company in the four perspectives of the BSC and how should the BSC be structured as a strategic management system in a medium-size yarn manufacturing company.

The study is detailed as follows. The current section represents the introduction. Section 2 represents the perspectives of the BSC and section 3 determines the research design. Section 4 represents the application of the case study. Section 5 discusses the results and section 6 concludes the paper with findings, practical and managerial implications.

2 The Perspectives of the Balanced Scorecard

Changed accounting conditions infer an important emphasis on control, recording, communicating and measuring financial and organizational information (Carlström, 2012). Kaplan and Norton conducted a research in several firms and found that one measure cannot be sufficient to link between strategic targets and cannot be an important function of a company. So, they introduced a new performance management system, which includes both financial and non-financial measures to link between targets and functional areas of a company (Kaplan and Norton, 1992; Coe and Letza, 2014).

The BSC is a strategic management tool that generates a relationship between objectives and measures in accordance with the organizational viewpoints (Chriyha, Beidouri and Bouksour, 2012). The BSC consists of four perspectives: Financial perspective, customer perspective, internal business perspective, and learning and growth perspective (Lueg and Vu, 2015). Fig. 1 shows the BSC framework.

- Financial Perspective

The fundamental purpose in the financial perspective is to increase the shareholder value (Miloloza, 2018). Conventional financial measures are supported by three different points that clients, internal operation process, and employees in a framework of the BSC (Kaplan and Norton, 2007). The financial measures depend on long-term strategic targets (Kaplan and Norton, 1996a). The financial measures consist of three aspects: business growth, value creation, and profitability. Business growth is measured by revenue to assets ratio, increase in revenue and assets, revenue from new products and services. The value creation is measured by economic value added (EVA), market value added (MVA), stock price and dividends. The profitability is measured by profit margin, ROE, ROA, ROI, ROCE, and so on, in the financial perspective (Miloloza, 2018).

- Costumer Perspective

BSC translates the mission of a company into certain measures in customer perspectives like lead time, quality, performance, cost, and service. Internal business perspective is in a positive relationship with customer perspective.

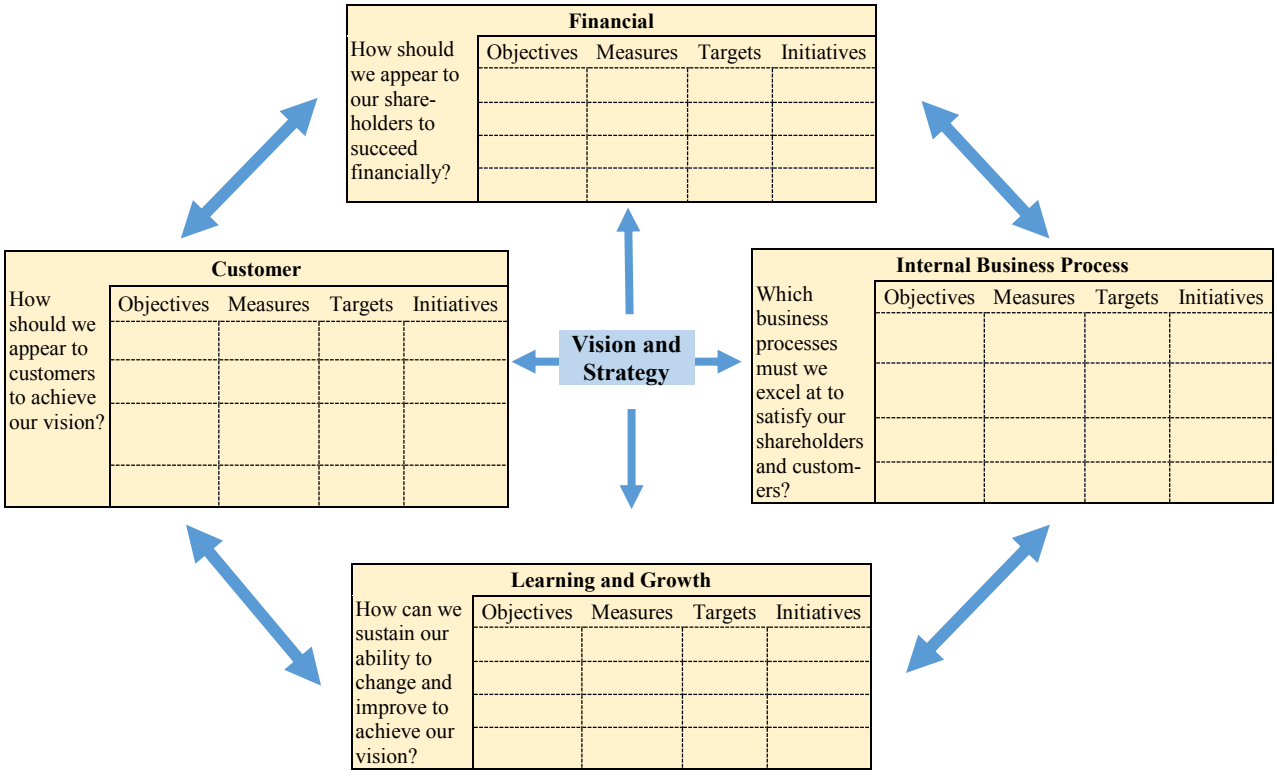

Figure 1. The Balanced Scorecard Framework
(Source: Adapted from Kaplan and Norton, 2007; Kaplan and Norton, 1996b)

Because while the quality of products and services, lead time, productivity, and efficiency are made better, customer satisfaction indicators become better (Kaplan and Norton, 1992).

- Internal Business Perspective

According to the traditional performance measure, internal process evaluation depends on financial indicators and time-based and quality measures that are little different from the financial perspectives. On the other hand, the BSC is used not only to follow up and enhance the system, but also to introduce new approaches and procedures to meet customer expectations and organization's financial expectations (Kaplan and Norton, 1996a).

- Learning and Growth Perspective

The perspective requires to elucidate meeting customers' expectations, enhancing business process and reaching financial targets for the whole organization. The learning and growth perspective of the BSC focuses on enhancement and transference of knowledge of the organization, beginning from the hiring process of a worker, training, drawing and holding them through consistent observation. The value of intellectual capital increases and sustains by spending resources on the training of personnel and by encouraging and motivating the employees through reward systems. The main objective in the learning and growth perspective involves the development and reshaping of the skills of the workforce to achieve the vision and mission of the organization. Learning and growth perspective includes not only educated and more skilled employees, but also considers the expectations and thoughts of the employee about the organization to ensure employee engagement (Narayanamma and Lalitha, 2016).

Measures and initiatives ensure an objective assessment, comparability and measurement between four perspectives (Costa Oliveira, 2014). For example, the internal business perspective is in a positive relationship with customer perspective. As while the quality of products and services, lead time, productivity and efficiency are made better, customer satisfaction indicators become better (Kaplan and Norton, 1992). Improving the satisfaction of employee results in an increase in customer service quality, re-

sponsiveness, productivity, and efficiency (Narayanamma and Lalitha, 2016). BSC clarifies that how senior management balances performance measurements to accomplish their strategic objectives. BSC is a guide for steering resources, clarifying and transmission of objectives of an organization for its managers, employees, investors, and customers (Kaplan and Norton, 1993).

BSC ensures collaboration and good communication between employees as well as detailed assessment of the four perspectives of the whole organization (Narayanamma and Lalitha, 2016). BSC is a method for strategic implementation; thus, it deals with four perspectives and their measures and assessment. If results are either positive or negative in an unexpected sort of way, the BSC should consider and check the activities under the control of the performance of the organization (Costa Oliveira, 2014). Implementation of the BSC consists of four stages (Kaplan and Norton, 2007; Costa Oliveira, 2014), as mentioned below:

- Stage 1 - Convert the vision to the strategy of the business

Vision is converted to a strategy. Then, the strategy should be expressed into measurable targets with indicators. In terms of the whole organization, the vision should be made recognizable and explicit to form an understandable organizational culture.

- Stage 2 - Communicating and linking

The strategy and its objectives are clear for all departmental and individual levels of an organization. A successful communication system in an organization allows sharing of learning, abilities, and information between all the levels of an organization.

- Stage 3 - Business planning

In this stage, organizations put together business strategies and financial plans. So, individual and departmental objectives are identified with regard to this collaboration. Individual objectives show the contributions from individuals to achieve the strategic objectives of the whole organization.

- Stage 4 - Feedback and learning

Companies become aware of the strategic learning at this stage. The progress is continuous. The gathering of information in the whole company should be identified on the basis of certain rules that depend on performance measures and targets belonging to each perspective.

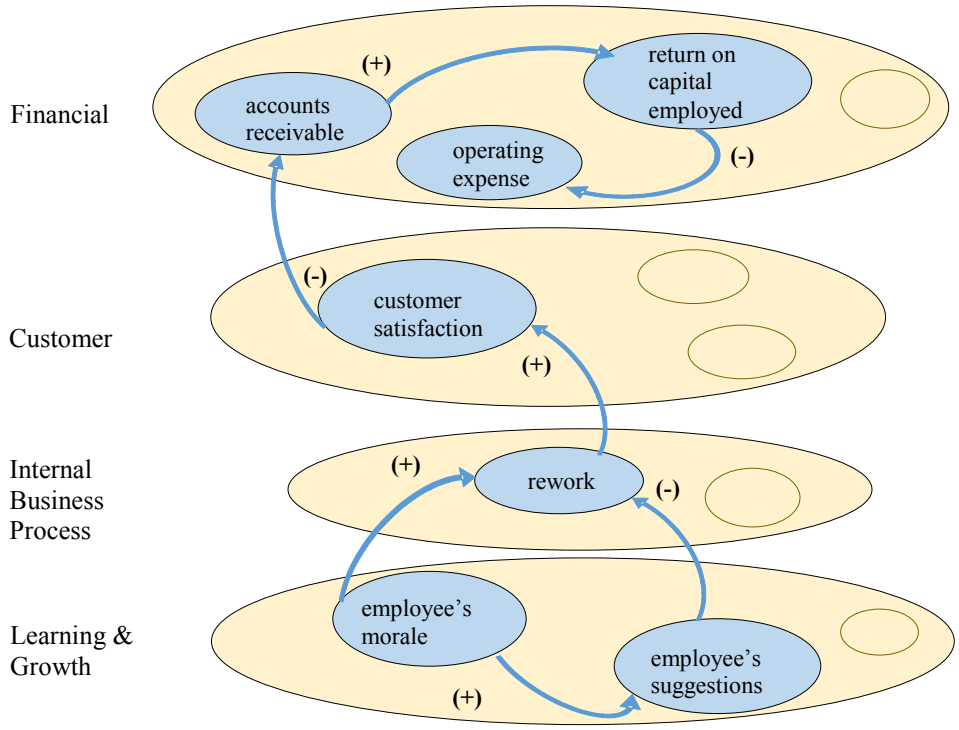

Figure 2. The Cause-Effect Relationship Known as The Strategy Map
(*Source:* Kaplan and Norton, 2007)

A strategy map is defined as a strategic management system, which includes a cause and effect relationship between the performance measures (Kopia, et. al., 2017). The strategy map generates theorized causal relationships between strategic objectives in order to create value in the long term (Humphreys, Gary and Trotman, 2016). The performance measures are shown up in a cause and effect relationship in the strategy map (Costa Oliveira, 2014). Strategy maps plan to build instructions on causal connections and their statements (Barnabe and Busco, 2012). Fig. 2 shows the strategy maps including the four perspectives.

BSC has an important advantage as compared to the other performance management frameworks that it ensures an overall view of four perspectives through building a causality relationship between these perspectives in the strategy maps (Karabay and Kurumer, 2012; Costa Oliveira, 2014). The strategy maps let the more excellent understanding and investigation of cause-effect relationship between performance indicators and outcomes (Barnabe and Busco, 2012).

The cause-effect relationship between the four perspectives is exemplified through return on capital employed (ROCE) as a performance measure in financial perspective as it depends upon increasing sales that are provided from the existing customers who have high loyalty. In this regard, customer loyalty that has an effect on ROCE becomes a performance measure in customer perspective.

The next point is related to how does an organization enhances customer loyalty. Accordingly, researches on customer preferences have shown that customers attach importance to on-time delivery (OTD). Consequently, the more OTD is improved, it is more likely that customer loyalty increases, thus, financial performance measures get better (Kaplan and Norton, 1996a).

In contrast to BSC, organizations have many random operational and physical measures in the traditional approach. Performance measures of BSC differentiate into a few points from traditional performance measures. The measures of BSC based on an organization's strategic vision and objectives are determined in the presence of four perspectives. Traditional measures show the results of past decision and events, but they cannot guide on how perspectives can be improved in the organization. From this point of view, the BSC allows an organization to focus on both present and expected situations. Furthermore, opposite to traditional measures, the information obtained from the four perspectives ensures a harmony between external scopes such as operating income and internal scope such as novel production process (Kaplan and Norton, 1993).

Managers can understand a development in one business area whether it depends on the reduction in another business area in the BSC framework (Kaplan and Norton, 1992). Thanks to the BSC, the four perspectives are both independently and mutually responsible for the contribution to the relationship between business long-term strategic targets and short-term activities (Kaplan and Norton, 2007).

The BSC makes mission and vision measurable. Strategic targets are more understandable for all the levels of organization. Achieving common objectives creates unity and cooperation in an organization. Lastly, BSC creates a strong communication network from lower level employees to senior management. BSC is a useful strategic performance management instrument for these reasons (Quesado, Guzman and Rodrigues, 2018). The scorecard as a strategic tool enables to assess how well the strategies are being executed (Kaplan and Norton, 1996b). Managers realize which areas have to be improved and measured by BSC, as well as it ensures a system of performance management (Narayanamma and Lalitha, 2016).

3 Research Design

Case studies are usually used for the explanation of contemporary research subjects and give a limited control over the case to the researcher. Case study approach is useful if a research focuses on the hows and the whys in real-life events (Yin, 1994). The case study was preferred in this study as a research method since it provided detailed analysis for a single phenomenon. The data were collected based on interviews with managers and employees and production and financial documents were examined. The diagram of the research design is shown in Fig. 3.

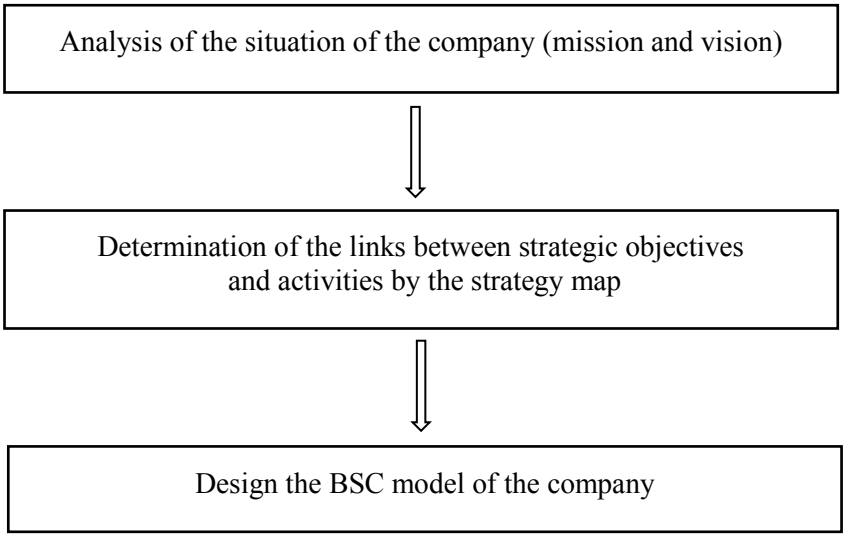

Figure 3. The Flow of the Research Design
(*Source*: Author's own research)

A descriptive case study was implemented to understand the current state of the enterprise. Data were collected to show detailed internal state of the organization by means of the case study research. The case study research allowed an interview with the employees, to make observations and measurements in the organization. The case study methodology was preferred to ensure detailed information about organizational processes.

4 An Application in A Textile Manufacturing Company

The company is a family owned business and it has operated for 20 years. The scope of the company is the textile manufacturing sector. The company manufactures different types of woven yarn and it sells various types of woven yarn to domestic businesses producing fabrics. The mission and vision of the company guide for the BSC implementation:

- The mission of the company goes beyond world standard by combining the latest technology and qualified personnel to achieve the quality of woven yarn.
- The vision of the company meets the expectations of customers with quality production. The goals of the company are divided into two sections:
  - the target amount of sales 1.250.000 ₺ in a year,
  - the target amount of production is 5.000 tons in a year.

The company has adopted a revenue growth strategy within the scope of its aims. The strategy is converted into targets and measures in the four perspectives of the BSC. The strategy map is formed concerning these objectives and measures in the four perspectives of the BSC. All the factors that achieve the desired results are related to the perception of the company's customers and productivity in the production and the employees. The strategy map gives details on the linkages of cause and effect relationships between strategic objectives to show objectives in each perspective on how to support the company's strategy. The strategy map of the textile company is shown in the Fig. 4. The expected results that depend on causal relationship are explained below:

- Employee loyalty is expected to increase due to reduction in employees' quitting their jobs depending on the training of employees and consideration of the employee recommendation. An increase in employee loyalty and qualification of employees through trainings are expected to positively affect labor performance.
- More skilled staff on the technical level can make better quality raw material purchases by better

valuation of quality factors in raw material purchases. In addition, improvements in the maintenance process of production machinery are expected with technically better trained personnel. Decreases in the number of defective products and product delivery time are the results of improvements in the maintenance of the production machinery, labor performance, and quality of raw material.

- Reducing defective production as a result of improving labor performance and quality of raw materials positively affects the production costs and the number of returning products. Improvements in production costs have positive effects on the increase in revenue per product and profitability of sales.
- Improvement in production quality contributes to customer satisfaction and increases the duration of business connection with the same customers. The long term business relationship with the same customers restricts the type of yarn being sold and produced. Because each customer of the enterprise continuously works with the same type of yarn, therefore, customers' orders do not change. Thus, reducing the frequency of adjusting of the production machines according to the demanded type of yarn avoids interruptions in production.
- Reductions in delivery times and increasing the duration of business connection with customers have a positive impact on customer satisfaction. The development of customer satisfaction are provided by decrease in complaints and leads to an increase in the number of customers.
- The increase in the number of customers contributes positive effects on the sales amount. In this case, the profitability of sales increases and the overall profitability of the company increases. As a result, the increase in profitability positively affects the growth and sustainability of the company.

All these relations are shown in Fig. 4 through the strategy map as follows.

Improving the objectives of each perspective has a positive effect on other perspectives. Fig. 4 is summarized as: if the company ensures training for its employees, more qualified employees provide higher performance of labor, shorter and more quality maintenance duration. By means of training the personnel, the expected improvements in internal processes result in decreasing the number of defected products, customer complaints, delivery time, and increasing customer satisfaction and customer numbers in the customer perspective.

Finally, improvements of customer perspective such as increasing customer numbers, customer satisfaction creates a positive result in financial perspective due to the increase in sales and profitability. All objectives of all perspectives support the mission and vision of the company. Briefly, the improvements of product quality, customer numbers, production, and sales amount is required for achieving the mission and vision of the company.

Initiatives show whether the company reaches its targets within the BSC strategy. Furthermore, initiatives enable to determine the proper course of action, objectives for four perspectives of a company in any sector (Costa Oliveira, 2014). In Table 1, the BSC is found compatible with the aims of the strategy map in Fig. 4.

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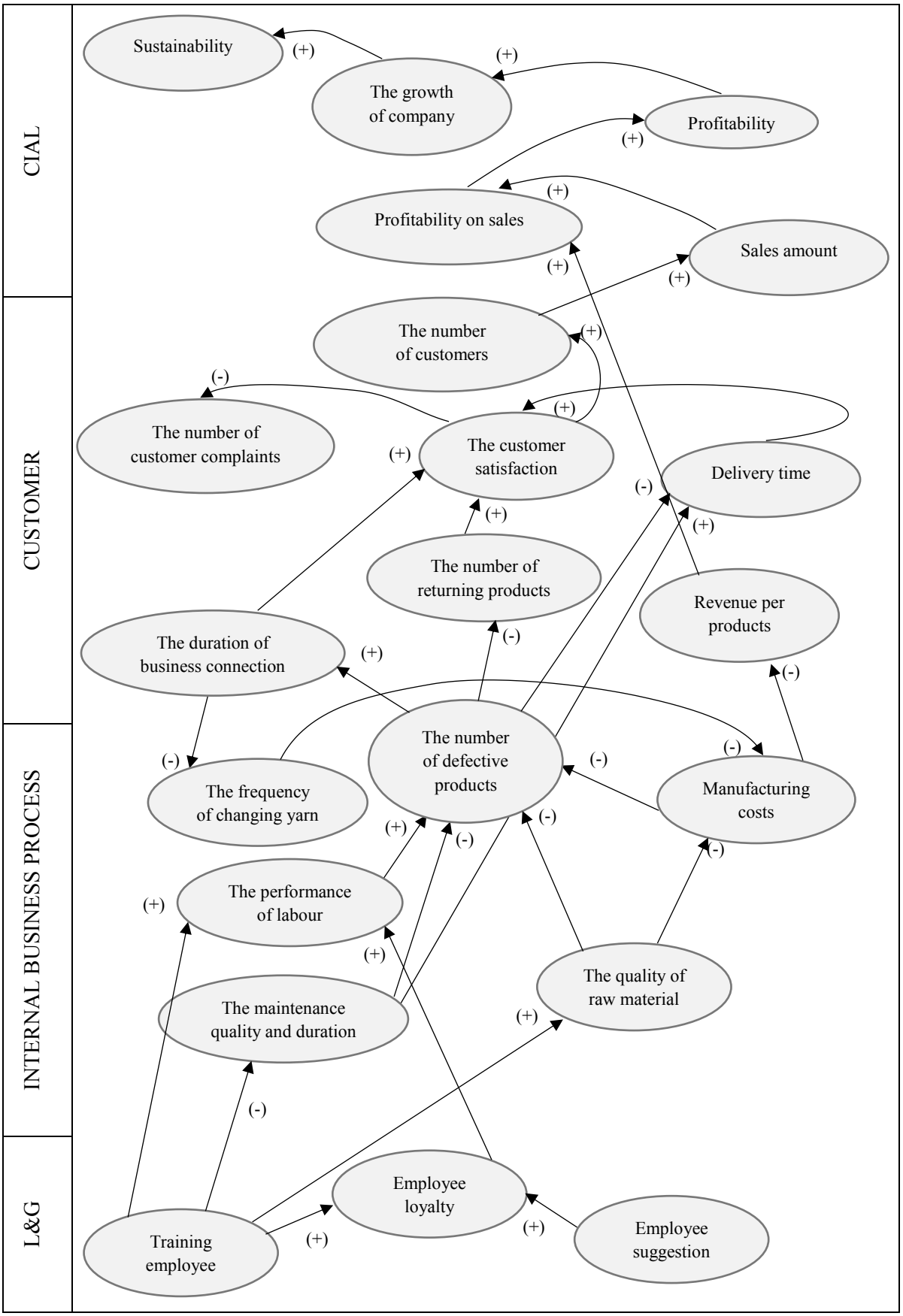

Figure 4. The Strategic Map of the Textile Company
(*Source*: Author's own research)

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Table 1. The Textile Company Balanced Scorecard
(*Source*: Author's own research)

THE BALANCED SCORECARD OF THE TEXTILE COMPANY				
	OBJECTIVES	MEASURES	TARGET	INITIATIVES
FINANCIAL	Profitability	Net profitability / Sales	> 4	Financial Indicators
	Sustainability	The percentage of increase in sales	410 tonne yarn sales in a month	
	Inventory Turnover Rate	Cost of goods sold/Average inventory last 2 months	7 > ITR > 4	
	Liquidity	Current assets/Short term liabilities	< 2	
CUSTOMER	Reduce in Returned Products	Returning products/Total sales	< % 2	The amount of sales based on customers, products, and location
	Increase in Duration of Business Connection with the Customers	Period of offered service to customers	> 5 years	
	Increase in Customer Numbers	Total customers	> 35	
	Customer Complaints	Number of complaints	< 5	
	Delivery Period	∑(Delivery date - order date)/(Total order)	< 20 days	
INTERNAL BUSINESS PROCESS	Reduce Percentage of Defective Products	Defective units/Total production	Defective units < %0.5	Ability to keep production at 97% capacity
	Frequency of Maintenance	Average maintenance time (day)	Number of orders + 5	
	Reduce Interruption of Production	Total time of interruption in production/Total production	< % 6.3	
	The Period of Maintenance	Duration of breakdowns/Total work hours	< % 1	
	Increase in Production Capacity	Ratio of capacity utilization	> % 95	
	Labor Costs	Labor costs/Total unit costs	< % 2	
	Cost of Raw Material	Material costs/Total unit cots	< % 90	

Table 1. The Textile Company Balanced Scorecard (cont.)
(*Source*: Author's own research)

THE BALANCED SCORECARD OF THE TEXTILE COMPANY				
	OBJECTIVES	MEASURES	TARGET	INITIATIVES
LEARNING & GROWTH	Increase in Training Time for White Collar Worker	Time spent	5 hr/month	Training all staff about BSC and creating a harmony between finance, marketing, and production
	Increase in Training Time for Blue Collar Worker	Time spent	5 hr/month	
	Reduce in Absenteeism	Absent hours/Total working hours	< % 0.4	
	Reduce in Work Accident	The number of work accidents	0	
	Reduce in Labor Turnover Rate	Number of workers quitting their jobs/Total workers	< % 5	

The measures contained in the BSC refer to the values that these activities should meet in order to achieve their objectives consistently with the mission and vision of the enterprise. Table 1 is explained as follows:

- The financial performance measures in the BSC are based on financial ratios. The profitability, stock turnover rate and liquidity values are determined according to the averages of real sector statistics of the National Central Bank. The amount of sales growth target is related to the amount of increase in the production target of the company.
- Customer performance measures are determined based on the customer, region and product variety of the sales volume. The possibility of achieving of goals increases, as long as the company provides a product returns rate that is less than 2%, the total number of customers is over 35, the total number of customer complaints are under 5 and the period of product delivery is below 20 days.
- The internal processes perspective includes measures for improving the production process. The production capacity should be 97% in order to achieve objectives of the internal process. For this reason, the amount of defective production should keep below 0.005% of the total production. The frequency of regular maintenance should be carried out every five days in which added the number of orders. Interruptions in the production period should not exceed 6% of the total production. The maintenance time should be less than 1% of the total operating time. The capacity utilization rate should be above 95%. The proportion of raw material and labor costs within the unit product costs should be monitored.
- In terms of learning and development perspective, white-collar employees should be trained on financial analysis, financial statements and reporting in average 5 hours per month, while blue-collar workers are trained on the work plan, maintenance, repair, and other technical issues in the same period. In terms of improving labor productivity and employee loyalty, the organization should ensure that avoiding work accidents, low of absenteeism and labor turnover rates are important issues to achieve strategic goals.

5 Results and Discussion

This study has revealed how to determine the proper measures to be taken in order to reach the objectives of the company in line with its mission and vision and to evaluate the contribution of these activities to the objectives. The effects of activities on the objectives are as follows in the four perspectives of the BSC:

1) The Financial Perspective: Increasing sales and subsequently increasing profitability are the primary determinants. It is expected that the number of sales increases by new customer acquisitions and with the increase in the duration of business connection with the current customers. The rise in sales affect the inventory turnover rate positively and the increased liquidity positively contributes to solvency. This situation contributes to the overall profitability of the business and enables the company to continue its growth and sustainability.

2) The Customer Perspective: It is possible to sum up the expected improvements within the framework of objectives and measures of learning and growth perspective, as well as the effects of developments in this perspectives on internal processes, customers and financial perspectives as follows: improvements in raw materials and production processes are expected to reduce the number of defective products and decrease the number of customer complaints. The decrease in the number of rework, lead time and production interruptions are expected thanks to high-quality raw materials and more skilled labor. It is aimed to increase the duration of business connection with the current customers and acquire new customers with the expectations that these improvements affect customer satisfaction positively.

3) The Internal Business Process Perspective: Trained blue collar workers existing in the production process provide results that increase labor performance and result in a decrease in defective production. Appropriate raw material selection increases the quality of raw materials. Waste of time due to low-quality materials, maintenance, rework in the production process are eliminated as a result of training of employees. As a result of having trained staff, the machine maintenance process and quality are expected to improve. As a result, by decreasing the defects in the production in the internal processes perspective, the increase in labor productivity, the increase in the quality of raw materials and the improvements in the production costs are targeted.

4) The Learning and Growth Perspective: Employees whose suggestions and ideas are regarded and who can improve themselves through the given training increase their loyalty to their jobs. By increasing employee loyalty, the company aims to reduce workplace accidents by reducing absenteeism and training.

These inferences are based on the strategy map. In addition, the effects of the BSC-based performance management on employees and management has been observed in the study. As a result of the BSC application, these results were achieved in the textile company as follows: It created a common awareness among production, marketing, human resources, finance and management departments and increases coordination within the organization. The BSC enabled organizations to measure its strategies. It enabled the total performance of departments and the complete organization to be evaluated in a short time. It enabled all employees to take responsibility for determining the current situation of the processes and achieving the goals. The efficiency of the meetings increased by ensuring that the corporate meetings were more effective and result oriented.

6 Conclusion

Unlike the traditional performance and strategic management systems, the scorecard is used as a communication, information, and learning system by managers. Thus, the BSC is a useful approach for gaining competitive advantages to ensure understandable long-term strategic targets (Kaplan and Norton, 1996a). BSC is an effective way to adopt the organizational culture, create a communication link between strategic objectives and individual and departmental targets in a company. It is essential to form a management framework that enables to incorporate a variety of departments and functions of an organization, advantages in the gathering

of timely and relevant information, generating and collecting data (Costa Oliveira, 2014).

In this study, a performance improvement strategy in the BSC framework is determined. It provides the following findings:

- Firstly, the strategy map was used to establish the relationship between the company's objectives and activities. The strategy map has enabled the establishment of cause-effect relationship between the company's objectives and activities. In order to reach the objectives based on the mission and vision of the company, the strategy map has determined the concerted activities in the four perspectives and how to develop these activities in line with the objectives. In this respect, it has made an inference that strategy maps are an effective approach in determining the relation of activities with targets and their contribution to the objectives in the context of cause and effect relations before determining financial and non-financial indicators.
- Secondly, it was examined how measures were determined in the BSC approach. The mission and vision of the company helped to determine the priorities and targets. These targets and priorities enabled the determination of what should be done in each perspective. So, the targets were expressed with measures to contribute to achieving the mission and vision in the four perspectives of the BSC.

The financial measures were determined with reference to the reel sector average of National Central Bank based on textile products. Customer measures were determined by the target sales amount based on the customer, product, and region. Internal process measures were based on the targeted production capacity.

The learning and growth measures were aimed at improving the quality of workforce and improvement of other perspectives by aiming to increase the skills and loyalty of employees. Lastly, it was examined how the BSC was structured to achieve strategic goals in a medium-size yarn manufacturing company. Following the identification of the activities to be carried out to achieve the objectives, financial indicators and non-financial indicators were determined to measure the impact of these activities on the achievement of the objectives. In this context, the BSC approach has enabled the use of non-financial indicators as well as the use of financial indicators as a measure of reaching the objectives of the enterprise. The reported findings were evaluated at monthly meetings and a decision was made on whether or not to change the objectives. Due to the nature of family companies, the fast and easy decision-making process has increased the coordination within the organization and accordingly facilitated the implementation and adaptation of the BSC.

The study has some managerial and practical implications. These managerial implications are as follows: Before the application of the BSC, the managers of the company focused on financial objectives and financial performance. The application was noticed that inefficiency areas related to operational processes and employees. Then non-financial measures were included in performance evaluation. The non-financial measures give an idea about how to evaluate the efficiency of top management, employees, and operational activities. The coordination of departments was improved. In addition, the corporate meetings were more efficient since discussions depended on causes and effects of the measurement values. The strategic communication between top managers and employees became more facilitated and effective.

The practical implications of the study are as follows: This study examines the criteria of selecting measures for performance measurement in the BSC framework. The BSC consists of four perspectives with twenty-one measures. Quality of products, qualified labor and technological improvements in operation processes are emphasized based on the mission and vision of the enterprise. Hence, activities and measures were revised as per strategic objectives depending on the mission and vision of the company. The situations making the labor inefficient were determined as absenteeism, high labor turnover rate and low qualified employees. The situations making operations inefficient were determined as negative impact on the profitability of higher raw material and labor costs, long maintenance and repair duration, defective production and interruption of production. Focusing on these areas and observing the criteria

carefully contributed to the improvement of sales by supporting customer expectations, and thus, contributed positively to the profitability of the company.

The BSC enables organizations to understand what their priorities are within the framework of their visions and missions and enable them to form a strategy in this way. In this respect, the BSC differs from traditional financial performance measurement systems. In this aspect the BSC has two advantages in organizations:

- Firstly, the BSC helps all the levels of the organization to understand the mission and vision of the enterprise and focus all efforts on this consciousness.
- Secondly, the BSC seeks assessment to what extent the use of resources of organization fulfill the mission of the enterprise and approximate its vision that expresses the goals it wants to achieve in the future. The BSC is an approach guiding the managers to assess the effectiveness of the strategy.

The BSC is not only limited to measurements based on financial objectives but also emphasizes the importance of identifying non-financial values and development of human factors. The contribution of this research is to offer a proposal on how to form a strategy map and implement the BSC for the company operating in the textile industry. In addition, the study helps to expand the set of measures and to offer practical and managerial implications for researchers and practitioners in the textile industry. Consequently, this study would be a guide for design and implementation of the BSC for small and medium-size businesses in the textile industry.

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