

Key Indicators of Performance Measurement in Small and Medium Industries using Balanced Scorecard Method

Wiwik Sulistiyowati, Isnaini Rodiyah and Ika Ratna Indra Astuti
Universitas Muhammadiyah Sidoarjo, Indonesia
wiwik@umsida.ac.id, isnajusuf@mail.com, ikaratna@umsida.ac.id

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Abstract: This research aims to know key indicators of performance measurement in Small and Medium Industry (SMI). The method mostly used in this research is the qualitative method with balanced scorecard concept approach. The study has seven indicators; these are Ability, Resources, Environment, Strategy, Process, Measurement, and analysis, innovation and learning. The result of research is significant indicators that important for performance measurement of small-medium industry are resources variable with leadership experience indicators in managing firms with 3.7 critical ratio value and ability variable with human resources management and resources useful with 3.55 critical ratio. Based on the result, in the real that development of small and medium industry depend on leadership or owner. Based on these results that in reality for the SMI developed based on leadership or owners. This is because the owner is indirectly the leader of the SMI, and all policies and rules based on the leader. Thus, of course, the leader's experience in managing the highest scores is an essential indicator of SMI's performance. Based on these results, in reality, for SMI's developed by leadership or owners.

1 INTRODUCTION

Small and Medium Industry (SMI) is one of the strong foundations in Indonesia's economic sector. This is evident, at the time of the monetary crisis can survive in running the production process. In Sidoarjo Regency, has many SMI, there are 15,000 SMI with 82 small industry centers and 32 types of SMI commodities. In its development, SMI has several constraints on improving the quality of its products. This is due to the absence of standardization of processes and products; there are still many who have not performed the company's performance. Thus, the purpose of this research is to know the performance of SMI, so that will get some important indicator to the performance of SMI. The method used in this research is qualitative with balanced scorecard method approach. The aim of measuring performance is not only to know how a business is a performance but also for the better future. Performance measurement generates data that will inform the users where the business is, how it is doing, and where it is going (Kairu et al., 2013). A performance measurement system enables an enterprise to plan, measure and control it is performed according to a pre-defined strategy (Okwo and Marire, 2012).

A balanced scorecard is one of the most popular and practical concepts of a system used for measuring business performance (Zizlavsky, 2014). BSC is based on the rationale that skilled employees will improve process quality and cycle time, which therefore leads to on-time delivery and customer loyalty (Zizlavsky, 2014). Balanced Scorecard is a strategic planning tool developed (Kaplan and Norton, 1996, Awadallah and Allam, 2015). In addition, balanced scorecard based on a four-dimensional framework, these dimensional there are learning and growth, internal business process, customers, and finance (Kaplan and Norton, 1992). The BSC is a performance measurement conceptualization that translates an organization's strategy into clear objectives, measures, targets, and initiatives organized in the four perspectives: financial, customer, business process, and human resources or innovation and learning (Kassahun, 2010). The benefit of BSC was to assist an organization to developed implement effective business strategies (Kaplan and Norton, 1992). The BSC has an overall positive effect on the performance of an organization but find not all aspects of the BSC are beneficial (Madsen and Stenheim, 2014). Basuony (2014) also find the BSC benefits organization but the benefits lean towards large

organizations. Madsen and Stenheim (2014) find three common benefits of the BSC to management, there are: the BSC assists managers to focus on strategy, structure, and vision; the BSC integrates financial and non-financial based on metrics to assistant manager to focus on the entire business process and ensure current business activities and events contribute to customer value and to the long-term organizational strategy, and the BSC assist managers to monitor the execution of a strategy by mapping cause-effect linkages between employee activities and strategy implementation. The aim of the research is to find indicators that important of the performance of Small and Medium Industries based on balanced scorecard methods.

2 METHOD

The methods of this research are qualitative methods. The study was purpose finding of indicators that important of a performance of small and medium industries based on balanced scorecard methods. Random Sampling in deriving a sample of 100 respondents from small and medium industry in Sidoarjo Regency. The questionnaire has 7 (seven) variables, and these are Ability, Resources, Environment, Strategy, Process, Measurement, and analysis, innovation and learning. The population is entrepreneurs in small and medium industries. Data collected using a questionnaire that had close-ended and open-ended. With 4 (four) point Likert scales items. Validity and reliabilities tested by SPSS V.16. After that, data were analyzed using descriptive statistic and tabulation of data.

3 RESULTS AND DISCUSSION

The performance of SMIs is performed by distributing questionnaires to SMI actors in Sidoarjo Regency. Questionnaires given to the respondents are 7 (seven) variables, and each variable is decreased into several attributes that represent the condition of the SMI and the things to be measured. The variable and attribute are shown in table 1. The result of validation and reliability testing, which all variables and attribute are valid and reliable, this means, that the data can be used for the continuous process.

Table 1: Indicators each variable.

No	Variable	Indicator	
1	Ability	X1.1	Effective Human Resources and Resource Management
		X1.2	Flexible in adapting to new industries and market trends
		X1.3	Managerial system in improving adaptability to resources and environmental change
2	Resources	X2.1	Leadership experience in managing the company
		X2.2	Knowledge of product/service development
		X2.3	Knowledge of marketing
		X2.4	Knowledge of customer service
		X2.5	Knowledge in managing the company
3	Environment	X3.1	Consumer groups and market segments are identified
		X3.2	Understanding and learning about consumers, anticipating consumer needs and developing business processes
		X3.3	Measuring customer satisfaction periodically and the results are used for improvement
		X3.4	The company knows its competitors and cares about its position in the market
		X3.5	The company collects competitor information
4	Strategy	X4.1	The company has a strategy
		X4.2	Strategies are developed, reviewed and updated periodically based on information from consumer, environment and

No	Variable	Indicator	
			performance measurement
5	Process	X5.1	The design, production, and delivery processes are well coordinated to ensure no problems and time are required
		X5.2	Production and delivery processes are continuously evaluated and upgraded to achieve the best performance
		X5.3	Supporting production and delivery processes (for example finance and accounting departments, IT, legality, risk management, etc.) support well.
		X5.4	The supplier's relationship with the company in the production process is well managed to ensure the achievement of the objectives.
6	measurement and analysis	X6.1	Key financial and nonfinancial information and data are well managed and used to support the achievement of corporate objectives
		X6.2	Information on competitors, environments, and technologies, etc., is collected and analyzed to improve performance and all activities
		X6.3	Employees and departments know how to measure their performance. The results can be used to guide the activities and improve performance.
		X6.3	Employees know the duties and goals and their contribution to

No	Variable	Indicator	
			achieving company goals and running strategy.
7	Innovation and Learning	X7.1	Investment in new product development
		X7.2	Efficiency of a new product development process
		X7.3	The company provides training

Based on data collected from a questionnaire, there are some important variables in running the business and measuring the performance of its business. Several important variables and attributes are used in SMI performance assessment, namely: a. Resource variable with leadership experience indicator in managing company with importance value is 3.7; b. Variable Capability with an HR management indicator and an effective resource with an interest value of 3.55; c. Resource Variables with knowledgeable indicators of product/service development with a value of 3.55; d. Process variables with indicators supporting production and delivery processes (e.g., finance and accounting, IT, legality, risk management, etc.) support well with a value of 3.55

Based on validation and reliability analysis, indicating that resource variable with leadership experience indicator in managing company has the highest importance value. This correlates with the results of open interviews that the management or management of SMI must be powerful in running the business supported by experience regarding managing the business.

Then the ability variables with HR management indicators and effective Resources, this is correlated with the ability of employees and competition between SMEs as well as efficiency and effectiveness in the work and employee relationships with business owners also affect the situation of a conducive work environment. Another important variable is the resource variable with the knowledge indicator of product/service development this correlates to the interview result that is the ability of the employee to increase the consumer's trust by improving the product quality.

Process variables with indicators Supporting production and delivery processes (e.g., finance and accounting departments, IT, legality, risk management, etc.) support well this correlates with interview results i.e. that financial and environmental factors strongly support the company's performance.

Based on qualitative data from interviews and field observations, it shows that some indicators are:

3.1 Affects the Company's Performance

- **Management of SMIs**
The management must be strong in running a business supported by experience in managing a business.
- **The ability of employees**
The ability, in this case, is the skills and insight employees in carrying out their work, and employee motivation can be a full support from the leadership, reward and punishment system and a clear career path.
- **Then the integrity of employees into their task,** it is very important, with the high integrity of employees can be seen that the sense of belonging in the workplace can affect the results and productivity work.

In addition, the quality of the products both and in accordance with the wishes of consumers, each consumer hopes that the products ordered or purchased in accordance with the wishes and needs, with excellent product quality and producer (SMI) can provide quality products in accordance with consumer expectations, it will affect quality of company performance. Also, the financial and environmental factors are excellent and conducive. Some people argue that the company's performance is right if the financial condition is also excellent and profit increases. As well as the existence of consumer confidence in SMI products and work system, if consumers already believe in the quality of products produced by SMI, then consumer loyalty will be created. The synergistic relationship between producer as the provider of product and consumer as a buyer, if this cycle goes well, hence company (SMI) will run well and develop.

3.2 Financial and Non-Financial Factors

Almost 80% of respondents stated that financial factors are measured to determine the level of company performance as well as to know the level of stability and know the comparison of financial statements and to improve performance. While 20% is not done because it does not do proper financial management that is not doing well bookkeeping and not a measurement of business performance.

Based on the measurement results of the questionnaire on the implementation of SMI performance measurement, it can be seen that: a. Type of performance measurement that is implemented in the company is 80% of SMI does not conduct company performance measurement. And 20% of SMI perform performance implementation that is a measurement of financial performance and consumer satisfaction. b. Have not done performance measurement by using a specific method, only conventional nature that is finance and consumer satisfaction from consumer complain to product received. The methods are ISO 9000, TQM, and Balanced Scorecard. c. The reason SMI perform performance measurement is to meet the needs of consumers and as feedback for human resources in carrying out its work. d. The reason for not running performance measurement is that there is no time and resources to perform performance measurement and performance measurement is not required. Based on the result of the research, the weakness of not yet measure of performance of SMI (40%) from the responder, that is Weaknesses and problems in applying performance measurement a. Licensing issues from the government. b. Quality of labor that has not met the standards c. Work system and working methods that are not yet optimal d. Still minimal knowledge of technology and environment e. Venture capital f. Prices of raw materials and strategies that have not been met g. The absence of recording and documenting the data well.

The result of this research has supported the result of research conducted by Babatope and Akintunde (2010), the problem following operation of SMI, there is poor access to money or capital markets, shortage of skilled manpower, poor management, and low entrepreneurial skill base, overbearing regulatory and operating environments. The result of this research has supported the result of research by Kairu et al. (2013), the result among showed that improved internal business process and increased customer loyalty important for performance measurement.

The suggestions for further research are compared with another method for performance measurement of a small and medium industry. For example ISO 9001, service quality and Malcolm Bald Ridge National Quality Award (MBNQA) method. But, to an implementation of the method must be fit for SMI condition.

4 CONCLUSIONS

The result of research is significant indicators that important for performance measurement of small-medium industry are resources variable with leadership experience indicators in managing firms with 3.7 critical ratio value and ability variable with human resources management and resources effective with 3.55 critical ratio. The problem following the operation of small and medium industries these are legality, skilled of manpower, work system, lack of knowledge of technology and environment, modal, the price of material and lack of documentation and administration management.

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